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Profiles of 21 Green Start-ups
ready to make business deals

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Profiles of 21 Green Start-ups ready to make business deals

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Ujuzi Kilimo Solutions

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Contact Person: Brian Bosire
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http://www.ujuzikilimo.com/

Industry: Agribusiness/ Technology

Funding Raised: Received KES. 3.81 as seed funding

Funding Required: Seeking KES. 15M to scale up the production

Use of Proceeds:
- Upscaling production of soil testing kits
- Expanding network of farmers

Revenue Forecast (KES.):

2018	2019	2020
1M	4M	7M

Competitive Advantage:
- On-farm scanning
- Turn-around time of 3 minutes
- Four service offerings
  - Soil (Self testing)
  - Q & A (SMS text)
  - Reporting/ recommendations,
  - Weather updates

Management Team:
- Brian Bosire - Founder & Lead Software Engineer
- Henry Ohanga - C.O.O & Software Engineer
- Dickson Ayuka - Head of Business Development

Number of employees: 6

Business Description

Ujuzi Kilimo is a data-driven agronomy services company, using original and innovative technology to reinvent the soil testing and analysis process, helping farmers to improve and increase crop health and productivity across Kenya.

Problem/Solution

Over 400 million African smallholder farmers rely on traditional knowledge to inform their farming decisions, thus most end up making uninformed decisions resulting in declining productivity on their farms. Due to high costs and inaccessibility of information, many of them cannot afford to pay for extension services, creating a knowledge gap. Ujuzi Kilimo uses sensors to precisely capture soil and farm data from which farmers get real-time actionable and easy to understand advise on fertilizers, seeds, weather, and best practices to ensure they practice productive and sustainable agriculture.

Products/Service

Ujuzi Kilimo uses sensors to collect soil and farm data which is sent to a central database. Farmers get actionable, trackable information in 5 minutes via an interactive SMS platform, helping them to improve and increase crop health and productivity through tailored recommendations and agricultural information.

Market

Ujuzi Kilimo's target market includes individual smallholder farmers, urban commercial farmers, farmer groups and professional organizations dealing with farming in Kenya. There are over 7 million small scale farmers in Kenya of which over 75% account of total agricultural production. Ujuzi Kilimo estimates serving 5M of the 7M smallholder farmers in Kenya who have adopted and are using a mobile phone.

Competitive Landscape

Ujuzi Kilimo's device uses light, temperature, and ion selective sensors to individually detect and measure the soil macronutrients. The Sensors generate electrical signals (voltages) that are conditioned to show exact amounts of the specific ions/nutrients present in the soil sample, measuring pH, salinity, NPK, and moisture. Some of our competitors are Crop Nuts and Soil Cares.

Business Model and Distribution Channels

Ujuzi Kilimo team targets smallholder farmers and market focused commercially oriented farms that are ideally a part of a structured group or cooperative. Ujuzi Kilimo tests the soil for free, however to receive report and regular recommendations, a cost is involved. Farmers can either pay this upfront (KES. 2,000), or space out the cost in instalments through the season - a six-month package of KES. 350 monthly fee.

Traction to Date

Ujuzi Kilimo Solutions has partnered with Farmers Pride Africa and Lenana Agrovets. This is aimed at giving the enterprise access to more than 200,000 farmers in the next 2 years to prove the scalability of the business model. The team also has 6 working prototypes and has conducted 500 soil tests to prove accuracy of the kit. In 2018, the major focus will be on establishing a production line through an outsourced manufacturer for UjuziKilimo's hardware.

Sweet 'n' Dried

SWEET & DRIED
Simply delicious totally nutritious

SWEET and DRIED ENTERPRISES LIMITED
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Tel: +254 723 562 445
E-mail: sweetndried@gmail.com
Contact Person: Mercy Mwende

Industry: Agribusiness / Agro Value Add

Funding Raised: Raised KES. 2.93M as seed funding

Funding Required: The business is seeking an investment of KES. 3.4 M to be able to scale up

Use of Proceeds:
- Increase market base
- Improve Production capacity
- Purchase of Equipment

Revenue Forecast (KES.):

2018	2019	2020
4,847,850	9,695,700	14,538,550

Competitive Advantage:
- Middle and high income earners both in the local and international market
- Availability of raw materials
- Adequate land for expansion
- Skilled staff and adequate work force
- Nutritious products

Management Team:
- Mercy Mwende –General Manager
- Betty Mutegi – Finance Director
- Mr. Mageria Migue – Production Manager

Number of employees: 10

Business Description
Sweet and Dried Enterprises Ltd (S&D) is a woman-led company incorporated in 2014 and based in Tharaka-Nithi County. It specializes in the processing of dried fruits and vegetables at both the retail and bulk level.

Problem/Solution
Immense post-harvest losses of fruits, vegetables and root crops experienced by small scale farmers in Tharaka Nithi has led to increased food insecurity and poverty levels. Ensuring food and nutrition security in Kenya is, therefore, a critical challenge. In an effort to bridge the gap between production and marketing, S&D has developed an innovative approach and unique model that focuses on adding value to agro-produce through solar drying of fruits and vegetables.

Products/Service
S&D currently produces and sells dried Mango (mango flakes) and mango flour. Dried fruits are sold in 30 and 100-gram packages. Bulk items for all products are sold in 5 or 10 kg amounts. All products are processed and packaged to HACCP international standards for food safety and food security. Products also meet standardization criteria as set by the Kenya Bureau of Standards.

Market
There are three sources of demand for mangoes: the fresh market, the processing market and the export market. There has been a growing demand for dried fruits both in the international and local markets due to preference for dried fruit 'snacks' as an alternative to sugared snacks. Dried mangoes have also been preferred as they can be stored longer and are less dependent on the mango seasons. The expected market share will cascade over a period of 10 years. In the first 3 years S&D targets a market share of 35%, 45% between the fourth and sixth year and 65% from the seventh to the tenth year.

Competitive Landscape
In Kenya, most mango processors revolve around fruit juices and little around dried fruit products. However, S&D has identified competitors in the market place for both dried fruit and vegetable produce. They include Azuri Health Food, Find us in Africa and Sweetunda Limited. However, all three enterprises are bulk clients for S&D's dried mangoes.

Business Model and Distribution Channels
The S&D products are distributed directly to the customers in Tharaka Nithi. It also uses wholesalers, retailers, and kiosks, where they extend the chain to the final consumers. Other channels: bulk buyers, social media and exhibitions. Revenue is generated from the sale of the processed mango products. The products are sold at competitive prices to attract many customers while generating profit for the enterprise.

Traction to Date
S&D's accomplishments include: The expansion of the manufacturing building from 100 square feet to 1,000 square feet, accessing international markets, generating annual income of KES. 5,000,000 as at the end of year 2017, and acquiring HACCP training and documentation to meet international food safety standards.

Kikai Foods

Health in every pack

KIKAI FOODS LIMITED
P.O BOX 2391, Embu, Kenya.
Phone: +254 700 390 750
splanzajayden@yahoo.com

Contact Person: Caroline Mbogo

Industry: Agribusiness / Agro Value Add

Funding Raised: Secured KES. 1.87M seed funding raised in 2017

Funding Required: KES. 5M

Use of Proceeds:
- Business Expansion
- Improving production capacity
- Marketing

Revenue Forecast:

2018	2019	2020
600,000	1,800,000	2,160,000

Competitive Advantage:
- Quality products
- Affordable
- Gluten-free and products

Management Team:
- Caroline Mbogo-CEO

Advisory Board
- Kagunda Chege - Halisi Consultancy
- William Mwacingi - County Enterprise Development

Number of employees: 21

Business Description
Kikai Foods is a registered limited liability company that focuses on reducing post-harvest loss of bananas in Embu County, Kenya, by increasing their shelf life through value addition.

Problem/Solution
There exists a great loss of bananas due to poor post-harvest handling and lack of adequate storage facilities in Embu County. Kikai Foods was thus inspired by this reality to provide a sustainable alternative with a view of providing extra income, reducing postharvest losses and increasing food security. It does this through processing the bananas into forms that can last longer without depreciating their nutritional value or adding artificial additives such as food colors and preservatives.

Products/Service
Kikai Foods's main products include; banana flour, which is highly nutritious, easy to cook and gluten-free; and banana crisps which are tasty, crispy and in the customer's preferred flavor. The products are dried using solar technology and do not contain any additives. Kikai Foods is also in the process of expanding its product portfolio to include flour from pumpkin, sweet potato, cassava, and amaranth.

Market
There has been a growing demand for dried fruits both internationally and locally; creating a huge opportunity for Kikai Foods. There is also a growing trend where people are adopting healthy eating habits. Thus, the potential market size for Kikai Foods is large and it continues to grow. These include individuals, schools, families, hospitals, relief-focused organizations, and other institutions. Currently, the most popular processed banana product in Kenya is the banana crisps.

Competitive Landscape
The main competitors are Unga Limited, Winnie's Pure Health, and Pembe Mills. The potential competitors are Mhogo, and Stawi Foods and Fruits Limited. Kikai Foods uses differentiation, cost leadership and market focus strategies to attract and maintain more customers. Rise in the number of health conscious people provides an opportunity for which Kikai Foods' gluten-free products gains a competitive edge.

Business Model and Distribution Channels
The Kikai Foods business model revolves around five main areas namely customers, partners, key activities, revenue streams, resources cost structure and distribution. Revenue streams are from sale of products and trainings to banana farmers. Distribution is through direct sales, retailers and wholesalers and through exhibitions and expos.

Traction to Date
Key milestones include identifying processed banana products whose market is readily available, carrying out research activities to see how the firm can create a niche by supplying those products in high quality and at competitive prices, and identifying ways/ modes in which to create employment opportunities and help transform the society's economic status while taking good care of the environment.

Kitui Enterprise Promotion Company

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P.O Box 77 – 90200, Kitui – Kenya.
Telephone: +254 722 584 365
Contact Person: Janet S. Mumo, CEO/Founder
info@kpc.co.ke

Industry: Agribusiness / Agro Value Add

Funding Raised: Raised KES. 1.49M as seed funding and loan

Funding Required: Seeking investment of KES. 15M

Use of Proceeds:
- Automation of processes
- Machinery and Equipment
- Improve production capacity

Revenue Forecast (KES.):

2018	2019	2020
5,000,000	9,309250	10,240,175

Competitive Advantage:
- Affordable products
- Consumer acceptance/Brand recognition
- Low production cost
- Purely natural products and nutritious

Management Team:
- Chairman –Alex M. Muthoka
- Treasurer- David k. Muthoka
- Secretary / MD - Crack Munyao
- Technical advisor – Janet S. Mumo
- Legal advisor - William M. Kimanthi

Number of employees: 30

Business Description
Kitui Enterprise Promotion Company (KEPCo) is a private business founded in 2008 in Kitui County. It is involved in the production and distribution of mango juice, mango flakes, mango powder, and fortified flour.

Problem/Solution
Kitui County is one of the top mango growing counties in Kenya. However, it experiences a challenge in managing post-harvest losses of mangoes due to poor and limited storage facilities, and poor handling procedures. KEPCo therefore mitigates this by working with community based organizations and farmers to add value to the mangoes to elongate their shelf life while diversifying its usage. This ensures that farmers get return on their investment and the problem of post-harvest losses is addressed.

Products/Service
KEPCo uses mango extracts to produce variety of products mainly mango juice, flakes, powder and flour which is fortified and sold to the locals at a competitive price. The products are of high quality, natural (no additives) and very rich in nutrients.

Market
The niche that KEPCo serves includes the local and institutional customers. Currently the patrons of Juice bars, restaurants, “Juakali” (Self-employed cooperatives of unskilled labor) and school-going children are the primary consumers of Royal Mango Juice.

Competitive Landscape
The fruit juice sector is controlled by large players in the market such as Del Monte and Coca-Cola. However, their prices are relatively high and the products are believed to not be 100% natural. As a new player in the market, KEPCo seeks to promote a socially responsible image to appeal to the socially sensitive urban and export market consumer thus creating a niche for itself. It also provides a purely natural product with no additives.

Business Model and Distribution Channels
The mango products are sold to potential customers and clients ranging from individuals, schools, hotels, shops, and many other entrepreneurs. Primary distribution channels include and not limited to Retailers, Direct (Fountain Drink Carts, and locations), Wholesalers, KEPC sales force, Brokers and Agents. Product exhibitions, promotions and events advertisements in the local markets using print and radio media is done frequently to increase on the customer base. The products are priced competitively with other similar products in the market. The juice is projected to sell for 100 Kenya Shillings per liter while the powder is priced per kilo.

Traction to Date
KEPCo has invested in building a clientele base in Kitui County and other towns like Nairobi and Machakos. Its current annual income is KES. 5,000,000. Further, it has built sufficient social capital working with a network of 800 farmers. It employs 30 people, most of whom are women and youth. Current production capacity is 500 litres of juice per day.

ICO Seed Enterprises

INTEGRATED COMMUNITY ORGANIZATION FOR SUSTAINABLE EMPOWERMENT AND EDUCATION FOR DEVELOPMENT ENTERPRISES LIMITED

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Contact Person: Patrick Muriuki
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www.icoseed.org

Industry: Agribusiness

Funding Raised: Secured KES. 916,000 in seed funding in 2017 and KES. 4 M from SEED.

Funding Required: Seeking KES. 10M to scale up the production

Use of Proceeds:
- Production Capacity
- Equipment

Revenue Forecast (KES.):

2018	2019	2020
2.5M	5M	7m

Competitive Advantage:
- Unique products
- Strong partnership with banana farmers
- Experienced management and production staff

Management Team:
- Gideon M. Makanga - Chairman
- Dr. R. K. Wanjogu - Vice Chair
- Patrick G Muriuki - Secretary / MD
- Nelson Muriuki - Treasurer
- Peter Muriithi - Patron

Number of employees: Not Available

Business Description
ICOSEED Enterprises Limited is an enterprise registered in 2015. It focuses on extracting banana fiber for sale and for making beautiful and unique handicrafts like bags, clutch purses, table mats and wall hangings for local and international markets. It is located in Kirinyaga County.

Problem/Solution
ICOSEED Enterprises realized that sisal products like bags, mats, batiks and wall hangings are becoming rare and expensive in Kenya. Most of these products which are in high demand by the tourists and middle class working and business women offer a lucrative source of income. To fill the gap of shortage of sisal fiber, ICOSEED Enterprises sought to explore the banana fiber to make unique products made from banana pseudo stem extracts (fiber).

Products/Service
ICOSEED extracts banana fiber and dries it to produce various marketable products including bags, purses, table mats and wall hangings. These products are unique, beautiful fashionable, and affordable.

Market
ICOSEED focusses on the local and international markets. Locally, it targets the middle and upper class women as well as the tourists visiting Kenya. This market segment has a high demand for green shopping bags, handbags and clutch purses as well as wall hangings, mats and bed-side mats. International market segment targets the Industries in Asia (India and Japan), Europe and Australia who buy high quality banana fiber to make high value products like money and writing papers. European and Australian market also buy green products like bags and mats.

Competitive Landscape
The business faces competition from enterprises making similar products from sisal fiber. However, these products are often more expensive than ICOSEED's. Additionally, the Banana Fiber Society of Kenya is another competitor – even though it makes similar products to ICOSEED's, ICOSEED's stand out due to its branding and quality.

Business Model and Distribution Channels
The enterprise sources the banana fibre from banana farmers, who are paid for the fibre extracted from their banana pseudo stems at Ksh. 25 per Kilogram. The fibre is handed over to youth for brushing and finally to women for twining and dying. The coloured threads are passed on to hand loom operators who make fabric/ cloth. The fabric is used to make bags, clutch purse, table mats and wall hangings. The value preposition of the business is to make beautiful, long lasting, fashionable and affordable green products from banana fibre for middle and high class market. After production, revenue streams are made from sales of products, training fees and hiring out of machines.

Traction to Date
To date, ICOSEED has provided alternative source of income to over 400 farmers yearly and has created more than 100 jobs in extraction and transportation of fibers. It also has a working station where the products are made. ICOSEED seeks to increase number of famers supplying banana stems from 400 to 9,000 in 2018 and add more mobile fiber extractors.

Envibuzz Consule

ENVIBUZZ CONSULE LTD

Livestock Feeds and Environmental Consultancy

ENVIBUZZ CONSULE LIMITED
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Email: mlatiochieng@gmail.com
Contact Person: Philip Ochieng' Mlati

Industry: Agribusiness / Waste Management

Funding Raised: Secured KES. 1.42M in seed funding

Funding Required: Seeking an investment of KES. 13.4M to scale up

Use of Proceeds:
- Construction of a workshop
- Purchase of a feeds manufacturing machine,
- Purchase of 50 ProtaPod composting bins
- Purchase a pick-up truck
- Marketing

Revenue Forecast (KES.):

2018	2019	2020
15,075,200	18,385,920	22,744,302

Competitive Advantage:
- Established customer base
- Personalized relationship with clients
- Quality products
- Unexploited market
- Great packaging and after-sale services

Management Team:
Philip Ochieng' Mlati - Executive Director,

Number of employees: 2

Business Description
ENVIBUZZ CONSULE is a registered limited liability company founded in 2015. It focuses on undertaking a sustainable organic waste bio-conversion project which employs Black Soldier Fly (BSF) larvae to break down the waste to produce high protein content larvae used as livestock feed whilst the residue is utilized as organic fertilizer.

Problem/Solution
The up-surging human population comes with multiple challenges which include increased production of waste and demand for protein food among others. In addition, there has been an increase in bio diversity loss due to overgrazing which causes depletion of ground cover leaving the soil bare and vulnerable to soil erosion. To mitigate this EnviBuzz Consule provides livestock feed, an alternative highly nutritious feedstock. The residue is then used as manure.

Products/Service
The products include live larvae, dry/dead larvae, and organic fertilizer. The enterprise also offers consultancy for BSF bio-conversion.

Market
There has been a growing demand for Black Soldier Fly (BSF) larvae to farmers locally and internationally. This increased demand for Black Soldier Fly 'larvae' as an alternative to Animal feeds and organic manure creates a huge market for BSF. Our products target small scale poultry/fish farmers and small scale organic farmers. Specifically, we are targeting medium income small scale farmers who have basic education to understand the utilization of insect feeds for livestock and human feeds.

Competitive Landscape
EnviBuzz Consule is among the only 2 providers of BSF services in Kenya and reaching out to markets across Africa with the sale of live BSF larvae. The main competitor is Dudumill, an animal feeds producer from insects which are fed on organic waste. Other competitors include commercial livestock feed manufacturers. However, they are limited by the volatile supply of protein source as they depend on fisheries which are currently over-exploited. This makes their feeds costly and unreliable in supply. EnviBuzz Consule will capitalize on this to offer farmers a reliable supply of feeds whilst ensuring that customers get value for their money.

Business Model and Distribution Channels
The business has three revenue streams; sale of live larvae, dry larvae and offering consultancy services for BSF bio-conversion solution. Customers access the services through a digital platform where they order and subsequently have products delivered to them. Sale of live larvae makes 70% of the total revenue, with dry larvae 20% and consultancy 10%. When EnviBuzz starts manufacturing livestock feeds, it will engage wholesale distributors and allocate more investments in marketing and livestock health extension services for the farmers.

Traction to Date
Through social media advertisement and word of mouth, the company is currently able to sell all monthly produced 100 kilos of live larvae at 2500/- per kilo. Moving forward, the company is looking to venture into manufacturing livestock feeds using BSF larvae as the protein ingredient, in 2018.

Lakeview Fisheries

LAKE VIEW FISHERIES LTD

"Farm , Eat and Live Sustainably"

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P.O. Box 47422, Nairobi, Kenya
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Email: info@lakeviewfisheries.com
gilbertmbeo@yahoo.com
www.lakeviewfisheries.com

Industry: Agribusiness

Funding Required: Seeking an investment of KES. 24M

Use of Proceeds:
- Production Capacity
- Business Expansion
- Equipment and Machinery
- Research

Revenue Forecast (KES.):

2018	2019	2020
14.27M	22.3M	27M

Competitive Advantage:
- Fresh
- Does not need dietary additives
- Captures different income brackets

Management Team:
- Hon. Gilbert Ochieng Mbeo Snr.
- Michelle Adhiambo Mbeo
- Gilbert Ochieng Mbeo Jnr.
- Loise Dianne Akoth Mbeo
- John Joseph Onyango Mbeo

Number of employees: 32

Business Description
Lake View Fisheries (LVF) Limited is a privately owned company founded in 2013. It has built Kenya's first women and youth owned, vertically integrated, sustainable commercial tilapia cage aquaculture operation. The mission of LVF is to create a unique multi-faceted development project that will improve the availability of sustainably farmed affordable tilapia in Kenya, thereby increasing per capita fish consumption, reducing malnutrition, creating rural jobs, transferring skills, improving rural livelihoods and reducing poverty.

Problem/Solution
LVF has custom designed and piloted locally fabricated small-holder fish cages. This is in line with the company's focus on rural job creation, poverty eradication, capacity building and technology transfer. The company's approach is to work across the farmed fish value chain, from feed raw material production down to sales and distribution of fish, giving an opportunity for tens thousands of households to benefit from the growth of the industry.

Products/Service
Lake View Fisheries core commodity is a premium lake raised tilapia and tilapia fillets. It is distinguished from any other farmed tilapia because of its sustainable production and superior flavour and texture. This is attributable to the fact that the fish is sustainably raised in a pristine part of Lake Victoria within fresh water.

Market
LVF produces different sizes of fish targeting different consumers' financial ability. Among them is the whole Tilapia which weighs between 400g-800g. The 400g fish is aimed at supplying restaurants/ hotels. The larger 800g is used for fillet production, supplying supermarkets and home delivery.

Competitive Landscape
Unlike its competitors, LVF utilizes a state-of the art cold chain from farm to consumer, setting the product apart in freshness. The tilapia is graded and sold in different sizes to cater to different income brackets. It is distinguished from any other farmed tilapia because of its sustainable production and superior flavor and texture. The fish is raised on a predominantly soy based diet reducing the need for fish based dietary additives.

Business Model and Distribution Channels
LVF's business model components include customers, resources, value proposition, partners, channels and activities. It generates income by selling the tilapia fish and tilapia fillets. To acquire more customers, the product is sold in weight so that even those with lowest income can afford.

Traction to Date
Some of the key achievements of the company include: Built Kenya's most advanced vertically integrated tilapia cage farm with an installed capacity of 300 metric tons per annum, Key personnel and have been hired and trained on farm duties (32 permanent jobs), successfully started to sell tilapia and has begun limited processing to include freezing and gutting.

Magiro Hydro Electricity

MAGIRO HYRDO ELECTRICILITY LIMITED
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E-mail: johnmagiro@gmail.com
Contact Person: John Magiro

Industry: Energy

Funding Raised: Received KES. 3M in seed funding in 2016

Funding Required: Seeking KES. 10M grant

Use of Proceeds:
- Scale up production
- Connect 500 households to power

Revenue Forecast (KES.):

2018	2019	2020
400,000	500,000	600,000

Competitive Advantage:
- Low Cost - Affordable
- Reliable
- Clean and Renewable
- Installation payable in installments

Management Team:
- John Magiro - CEO & Founder
- Jane Muthoni - Shareholder
- Joseph Maina – Shareholder

Number of employees: 5

Business Description
Magiro Hydro Electricity Limited (MHEL) uses modified bicycle parts and simple motors to generate hydropower from a local waterfall, supplying inexpensive, renewable energy to rural households who otherwise would use kerosene and firewood.

Problem/Solution
High costs of electricity connection together with increasing rates of poverty have made it impossible for many people of Murang'a County to have access to electricity. Only 14% use of electricity as the main source of lighting out of a population of 942,581. Magiro Power offers off grid hydro-electric power which is supplied at lower rates in comparison to the national provider and supplier.

Products/Service
MHEL's main product offering is hydro-electric power which is supplied at lower rates in comparison to Kenya Power. The product not only provides a cheaper but also clean source of lighting which cannot be said for common sources such as kerosene and fuelwood.

Market
Murang'a County has an approximate total population of 942, 581 out of which only 14% use electricity as their main source of lighting. A further 40% use lanterns, and 43% use tin lamps. Less than 1% use fuel wood. Tin lamps are the most common lighting source by gender; 46% in female and 41% in male headed households. In view of these statistics, the lantern and tin lamp users coupled with the under grid cottage industries/small businesses form an ideal target market for Magiro Hydro Electric Power.

Competitive Landscape
MHEL faces competition from the giant power generating and distributing companies in the country. These include: KenGen, Geothermal Development Company (GDC), and Kenya Power. Additional competition emanates from other institutions licensed to generate power. However, the uniqueness of MHEL's electricity is in its price offering. For most people in the rural areas, electricity is an expensive convenience that many cannot afford. MHEL will bridge this gap to ensure that the masses get access to electricity for their lighting needs at a price they can afford

Business Model and Distribution Channels
Magiro's main product offering is hydro-electric power which is supplied at lower rates in comparison to competitors. The cost of installation is KES. 15, 000 and a flat rate of KES. 200 per month for the electricity. Kenya power charges KES. 35,000 for installation and charges per unit (average KES. 21). The pricing of electricity supply is pegged on the direct cost of production and overheads both fixed and variable. This also puts into consideration the desired profit margin to ensure it is attained. In doing all these, the attention is focused on the consumers.

Traction to Date
Magiro Hydro Power has managed to connect 350 homes and small businesses in Murang'a County and is targeting 500 households in the next 3 years.

CIST Africa

SUPER MOTO
Affordable and Clean energy

CENTER FOR INNOVATION, SCIENCE AND TECHNOLOGY (CIST) AFRICA LIMITED
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E-mail: ochikarwa@yahoo.com
Contact Person: Richard Arwa

Industry: Renewable Energy

Funding Raised: Secured KES. 2.95M in seed funding

Funding Required: The business requires an investment of KES. 5.625M to scale up

Use of Proceeds:
- Purchase of machinery and equipment
- Automate processes
- Marketing
- Improve production capacity

Revenue Forecast (KES.):

2018	2019	2020
100,000	300,000	500,000

Competitive Advantage:
- Relatively cheaper and Clean producing neither soot nor smell
- Strong heat (boils one liter of water 3 in minutes)
- Highly stabilized hence burns longer and produces low emissions
- Packed in different volumes with flexible sizing to fit demand

Management Team:
- Richard Arwa - CEO
- Ochanda Okongo - Operations Manager
- Anne Odundo - Finance & Admin Officer
- Irene Juma - Marketing Officer

Number of employees: 12

Business Description
Centre for Innovation, Science and Technology - Africa (CIST Africa) began as a school-based initiative in 2009. The enterprise deals with the manufacture and sale of bio ethanol fuel from water hyacinth feedstock blended and stabilized for cooking and lighting. It is located in Siaya County

Problem/Solution
Households in Kenya spend at least Ksh. 85 to purchase kerosene or charcoal daily. At least 3 hours are wasted on cooking an average meal using biomass, 2 hours lost in fetching wood fuel, denying girls a chance to remain in school and women to pursue productive work. In addition, water hyacinth covers more than half of Lake Victoria, impairing all economic activities in the lake. Few tangible commercial uses of this weed have been identified and it therefore remains to be seen as a curse by the locals. There is a need to sustainably manage it. Green bio-fuel is an eco-friendly, clean, reliable and affordable alternative aimed at addressing these challenges to meet household energy needs.

Products/Service
The biofuel produced by CIST is Ksh.15 cheaper than kerosene and charcoal and cooks faster and for longer (boils one liter of water in 3 minutes; burns continuously for 5 hours on high power knob) emitting neither soot nor smell. It will also save the women and girls time that would otherwise be spent on fetching wood fuel.

Market
At least75% of Kenyans live in rural areas. This group forms our largest target market. We also target the semi-urban and informal settlement dwellers that currently use fossil fuels and fuel woods to meet their energy needs. In addition, CIST Africa has identified a potential niche market in the over 2 million refugees and internally displaced persons in Kenya. These displaced people often do not have access to modern forms of clean energy mainly due to the high costs.

Competitive Landscape
The energy sector in Kenya is dominated by petroleum and electricity, with wood fuel providing the basic energy needs of the rural communities, urban poor, and the informal sector. Many of the target markets currently use firewood and kerosene which is quite readily available in the rural areas and is thus CIST Africa's biggest competitor. However, currently there are no other players producing green biofuel using water hyacinth.

Business Model and Distribution Channels
The bio ethanol fuel is distributed directly to the customers in the village. We also use wholesalers, retailers, kiosks, where they extend the chain to the final consumers. We also sell through our Facebook page when customers make places orders. We sell at competitive prices where 1 liter retails at KES. 70 while kerosene retails at KES. 85.

Traction to Date
CIST-Africa has purchased equipment and is currently producing biofuel leading to an income estimate of 1.8 million in 2017. 12 people have been employed in the business. 200 households (about 1000 people) are directly benefiting from the use of clean energy. Currently the business has a test certificate, and is undergoing legal business registration process with assistance from legal services from National Environmental Trust Fund.

Home Health Solutions

HOME HEALTH SOLUTIONS LIMITED
P.O. Box 157, Garissa, Kenya.
+254 720 447 810
sirmudu@yahoo.com
greencharcoal@gmail.com
Contact name: Mohamed Abas

Industry: Energy

Funding raised: Raised KES. 4.25M in seed grant in 2017

Funding Required: Seeking and investment of KES. 10M

Use of Proceeds:
- Prototyping
- Recruitment
- Equipment
- Business Expansion

Revenue Forecast (KES.):

2018	2019	2020
2,500,000	4,000,000	6,000,000

Competitive Advantage:
- Use of *Prosobis juliflora (Mathenge)*
- Affordable
- Reduced emissions
- Ban of charcoal transportation in Garissa County
- Products burn for longer, are smokeless and have high calorific value
- Great packaging

Management Team:
- Zeinul Abdin - Managing Director
- Mohamed Abas Bulale - Chairperson
- Abdulaziz Bare Hassan - Vice Chair
- Ibrahim Abass Gulale - Treasurer

Number of employees: 5

Business Description
Home Health Solutions is a limited company founded in 2015. It is involved in medium scale production of charcoal and value added charcoal briquettes from the Mathenge (*Prosobis juliflora*) tree in the North Eastern region of Kenya. It is currently based at Garissa County.

Problem/Solution
Garissa is plagued by poor and inadequate access to clean, affordable and sustainable sources of energy. More than 73% of the population use firewood while 24% use charcoal. This leads to environmental degradation, and increased health implications, slowing the development of the county. In addition, large sections of the county have been invaded by the Mathenge tree, an invasive species that disrupts ecosystems causing negative socio-economic and ecological impacts. Home Health Solutions thus sought to avail a sustainable and clean way to manage the menace whilst meeting the energy needs of the people. The idea of producing briquettes and charcoal from the Mathenge tree was then born.

Products/Service
The enterprise produces and distributes fully carbonized charcoal and briquettes under the brand name 'Green Charcoal'. They burn longer, are smokeless and are have a high calorific value. Further, they can be used for both household and industrial levels. The energy cost is 35% cheaper than bush charcoal. The products are fully certified by the Kenya Bureau of Standards.

Market
The largest customers are household, Hotels, Schools and other cottage industries who require energy or have charcoal boilers for their production process.

Competitive Landscape
There are only few companies in Kenya producing premium quality briquettes products. Currently there are no such companies within Garissa. Our competition targets the high end market and thus distributes their products through big supermarkets and other up-markets retail shops. Home Health Solutions however focuses on informal retailing targeted at the low end market.

Business Model and Distribution Channels
The business employs a highly innovative yet simple and appropriate system for producing and distributing superior, low costs, and high quality eco-charcoal from Mathenge. The enterprise has developed a unique marketing and distribution plan that involves the community, youth and women. The low costs fuel help consumers save costs on energy, while the distribution model helps enhance access. The products are distributed through informal retailing where sellers break up 25kg and 50kg sack of charcoal (sold at KES. 350 and KES. 500 respectively) into 2kg tubs and realize a 30% profit margin.

Traction to Date
The business currently directly employs 5 people and many casual labourers depending on need. It has also installed a production plant in Garissa County with a production capacity of 10 tons of charcoal per day.

International Research & Development Africa

INTERNATIONAL RESEARCH DEVELOPMENT AFRICA (IRDA)
P.O Box, 18124-00100, Nairobi, Kenya
Telephone: +254 710 212 375
E-mail: irdafrica@yahoo.com
Contact Person: James Kariuki

Industry: Energy

Funding Raised: Secured KES. 960,000 as seed funding

Funding Required: The business is seeking KES. 35 M as capital grant or investment to scale Bio Moto Cooker in exchange for 5% equity.

Use of Proceeds:
- Improve production capacity
- Equipment.
- Increase market base

Revenue Forecast (KES.):

2018	2019	2020
15M	17M	20M

Competitive Advantage:
- Patent registered
- Superior product
- Human centered design
- Relatively cheaper and clean producing neither soot nor smell
- Fast cooking

Management Team:
- James Kariuki - CEO/Founder
- Kennedy Kihiu - Co-founder
- John Kariuki - Co-founder

Number of employees: 3

Business Description
International Research & Development Africa Ltd [IRDA] was incorporated in 2001 as a limited liability company. The business aims to promote efficient and sustainable clean cooking solutions by manufacturing and distributing Bio Moto Cooker, a unique and innovative human centered cooker that is powered by bio-based fuel.

Problem/Solution
In Kenya, biomass and paraffin provide the main sources of energy for rural households with wood-fuel at 95%. This lack of access to affordable, fast cooking, clean cook stoves and fuels results in continued reliance on biomass. IRDA thus aims to promote efficient and sustainable clean cooking solutions by manufacturing and distributing the Bio Moto Cooker, a unique and innovative human centered cooker that is powered by bio-based fuel.

Products/Service
IRDA produces and sells Bio Moto cooker, a simple to use denatured alcohol cooker designed to provide cheaper, healthy, fast cooking alternative. The solution is 30% cheaper than wood fuel and kerosene. It is powerful, 0-4KW instant ignition, four level power regulator and turndown cooker. It boils 1-liter water in 7 minutes and does not emit any smoke, soot or smell.

Market
4 million urban homes spend about KES. 60 daily on energy to cook. Target customers include low-income urban households earning at least KES. 300/ day that aspire for but cannot afford more convenient fuels like LPG and electricity. This segment buys all its cooking firewood, charcoal or kerosene fuels in small, very expensive quantities daily. It also has no access to free biomass fuel.

Competitive Landscape
Many of our target market use traditional sources of energy. Thus IRDA's main competition is charcoal and Kerosene, and LPG. To beat competition, IRDA is executing a smart, product based differentiation strategy; Design; Attractive, extremely durable, polished stainless steel cooker with power regulator and turn down.

Business Model and Distribution Channels
The production cost of the cooker is KES. 2,437.50/unit and retails at KES. 3500/unit. For distribution, IRDA deploys brand ambassadors to have one on one with potential customers in their homes, social groups, trade shows, shopping centers, and other field venues that enable customer trials, demonstrations and sales. It has also engaged local and multinational oil companies and community based organizations as potential distributors.

Traction to Date
IRDA has fully installed machines and equipment and is currently producing an average of 4,000 Bio Moto cookers annually. 5,000 were produced in 2017. The business is currently making income estimates of KES. 5,000,000 annually and has a customer base that is well attached to the products.

PAK FAB Enterprises

PAK FAB ENTERPRISES LTD
P.O Box 166-00605, Uthiru
Tel: +254 722312460
Email: paulmungaikairu@gmail.com
Contact name: Paul Kairu

Industry: Energy

Funding Raised: KES. 5 M in grants

Funding Required: KES. 10 M

Use of Proceeds:
- Business expansion
- Improve production Capacity

Revenue Forecast (KES.):

2018	2019	2020
12m	13.5m	15m

Competitive Advantage:
- Technical experience
- Quality products
- Timely delivery
- Affordable

Management Team:
- Paul Kairu- Proprietor

Number of employees: 4

Business Description
PAK Fab Enterprises is a limited liability company involved in the production and distribution of briquettes whose purpose is to promote cost efficiency for manufacturers by increasing production capacity due to reliable and clean source of fuel. It seeks to promote industrial use of clean energy through commercialization of improved biomass briquettes.

Problem/Solution
The manufacturing sector in Kenya is known to use fossil fuels as sources of energy in its production processes. This is not only very expensive to the industries but also, environmentally unfriendly in an already vulnerable nation. The use of briquettes, therefore, is a good substitute that is a sustainable fuel source and at the same time lowers energy costs as it is relatively cheaper.

Products/Service
The enterprise's core product is white briquettes, a highly combustible solid that is an alternative to firewood. The business produces different designs of the briquettes. The briquettes are designed for industrial use; however, the enterprise also produces household briquettes. The company has begun specializing in the production of non-carbonized briquettes to improve its products.

Market
PAK Fab Enterprises primarily targets industries that use high-energy-boilers that require hundreds of tons of firewood in a week. There are many manufacturers both in Kenya and in the Eastern African region that use firewood and would greatly benefit from PAK Fabricators products. The sector is selected due to its heavy demand for firewood and its by-products which eventually lead to environmental degradation. PAK Briquettes thus provides a solution that contributes to environmental management and increased tree cover, whilst enabling the industries to cut on their production costs.

Competitive Landscape
The company faces competition from other sources of energy but mainly from firewood vendors (charcoal and dealers and log cutters) who supply the target market. Other briquette producers are also competitors. Barriers to the market entry include established organizations but for PAK Fab there are opportunities like limited diversification and market access which seeks to exploit. PAK Fab Enterprises Ltd uniqueness is in its target customers. Industries require a sizeable supply of energy for their production. This coupled with the fact that there is too much pressure on industries to contribute towards a clean environment; PAK Fab's energy solution is very timely.

Business Model and Distribution Channels
PAK Fab Enterprises Ltd designs and manufactures white briquettes which are sold to industries and small scale consumers like households. Quality services are given to the customers and timely delivery to maintain good relationships with the customers.

Traction to Date
The business operates as a registered company and its current production capacity is 1 ton of briquettes per day. It has secured The Bata Shoe Company among others as repeat customers.

MAA Briquettes

MAA BRIQUETTES LIMITED
P.O.BOX 132-20500 Narok, Kenya.
Tel: +254 728 284 768
Email: maabriquette@gmail.com or mochugk@yahoo.com
Contact Person: George Mochu

Industry: Energy

Funding Raised: Secured KES. 3.2M in seed funding

Funding Required: Seeking and investment of KES. 2.8M

Use of Proceeds:
- Equipment and other assets
- Improve production capacity
- Marketing

Revenue Forecast (KES.):

2018	2019	2020
1.2m	2m	2.8m

Competitive Advantage:
- Maa Briquettes offers the most
  - eco-friendly
  - efficient
  - conveniently sized,
  - and affordable briquettes in Narok county
- Business experience
- Dedicated team

Management Team:
- George Mochu – Managing Director
- Quality Control Manager

Number of employees: 15

Business Description
George is the owner and Founder of Maa Briquettes (sole proprietor), a local enterprise located in Narok County. The enterprise uses biomass to produce smokeless briquettes appropriate for household and cottage industry use.

Problem/Solution
More than 80% of Kenyan urban population use charcoal as their primary source of domestic energy, and other 30% of the rural population also use it to meet their cooking needs. Those who do not afford charcoal resort to firewood. There is therefore a need for affordable, easily accessible fuel that is eco-friendly and user- friendly. Maa Briquettes uses biomass collected from Narok market to make smokeless briquettes which are then sold at a cheaper price than charcoal.

Products/Service
The Maa Briquette innovation is a simple idea that uses charcoal dust, maize cobs and maize stalk and waste vegetable matter to make smokeless briquettes which are dried and then sold as fuel. The briquettes burn three times longer than charcoal, and are smokeless hence pose minimal risk to the respiratory health of the user.

Market
Maa Briquettes' primary target market is the households in Narok town due to the nature of their energy needs and their proximity to the business which reduces the distribution costs incurred. They are also targeted owing to their socio-economic status, market size, benefits sought and lifestyle/activities. The target market has a population of 850,920. It secondarily targets business enterprises especially those in the hospitality industry (restaurants and safari campsites) and institutions like schools.

Competitive Landscape
The major competition for the briquette industry stems from traditional and alternative sources of fuel (wood fuel, charcoal, LPG and kerosene) which continue to have predominant usage in both rural and urban areas despite their high costs and health effects (for wood, charcoal & kerosene) in comparison to briquettes. Also, Maa Briquette currently competes with Biogas solution initiatives. However the installation cost is expensive and since a high number of people live below a dollar a day and do not have sufficient animals to provide the raw materials for biogas fuel, the initiatives have not been successful.

Business Model and Distribution Channels
The enterprise generates its income from the sale of the briquettes. The current standard packaging is 35 kg bags that retail at KES.500 (half the price of charcoal). Maa Briquettes plans to diversify its packaging in order to enhance the affordability of its products. Distribution channels include: direct sales, manufacturer representatives, wholesalers, agents/brokers, retailers and direct mail to expand outreach.

Traction to Date
The enterprise has acquired the premises where it set up its locally fabricated briquette making machine for production. It received its first capital through a local bank loan which it repaid in the first six months of operation. It also conducted a market research and has an established market base.

Auto-Truck (EA.) Limited

AUTO-TRUCK (EA) LIMITED
P.O.BOX 59905-00200
Nairobi, Kenya.
Tel: +254 725 883 352
Contact Person: Kenneth Guantai
E-mail: info@autotruckeastafrica.co.ke
http://www.autotruckeastafrica.co.ke/

Industry: Energy

Funding Raised: Secured KES. 500,000 as seed funding in 2015 from Tony Elumelu Entrepreneurship Program

Funding Required: Seeking KES. 100M to scale up the production

Use of Proceeds:
- Set up assembly plant and amenities
- Plant and machinery
- Feasibility studies
- Research and Development

Revenue Forecast (KES.):

2018	2019	2020
4M	10M	30M

Competitive Advantage:
- Efficient products
- Defensible IP
- Few competitors

Management Team:
- Kenneth Guantai – Founder & C.E.O
- Erick Kinoti, Director - Sales & Marketing
- Eng. Charles Kalomba -Technical Director
- Samwel Biwott - Business Strategy Director
- Susan Kairima - Strategic Management Director

Number of employees: N/A

Business Description
AUTO-TRUCK (EA) LTD is a Kenyan registered company that deals with the engineering and production of battery powered hand carts. The company was registered in the year 2015 after the innovative idea by Kenneth Guantai was recognized by the Tony Elumelu Entrepreneurship Foundation (TEEP).

Problem/Solution
The products eliminate the tiresome nature of manual and physical handling of push-able or Pull-able machines like wheelbarrows, handcarts and trolleys among others. These manual machines require a lot of human energy to operate and are not fully efficient to use. The founder therefore came up with a solution to these problems by conceiving an idea of coming up with Motorized Electrical component of these products

Products/Service
The Powered Electric cart and trams are used to carry loads from one point to the other. The hand cart is fitted with motorized wheels that are propelled by a 90 amperes motor powered by batteries. The cart is driven via a hand - held accelerator system which allows the user to control and manage the speed of the cart through electronic controls to his/her satisfaction. It helps users reduce the energy spent in carrying luggage, either by lifting and or pushing hand carts.

Market
Currently almost all the sectors of the economy require goods to be moved using carts and wheel barrows. We have introduced our product to selected users across sectors that use conventional existing hand carts and wheel barrows, and the acceptance has been very immense. Our superior product competes with the current products that include non-motorized hand carts and wheel barrows if not fossil automated carriers. The price ranges between KES. 80,000 – KES. 100,000.

Competitive Landscape
The innovation targets to reduce the effort used by the load carriers to deliver goods from one point to the other with comparative advantage to the conventional hand carts and wheel barrows that require a lot of energy and strength to operate. To mitigate on competition, Auto-Truck intends to provide user guarantee as it continually develops a distribution model that will enable the users to pay for the product as they use it therefore providing a win-win scenario for both the company and its product users.

Business Model and Distribution Channels
There is a wide range of potential users, from industries, hospitals, airports among many others. The company has already produced a prototype that is already earmarked for mass production. As a start the company will generate income from the sale of the auto-trucks, mainly through direct sales to the customers.

Traction to Date
To date, we have received orders from various county governments and are in the process of fabrication. We currently have carts and wheel barrows that are used manually that we seek to improve by introducing a motorized mechanism. We also intend to set up our own production and assembly plant.

Dajopen Waste Management

DAJOPEN WASTE MANAGEMENT
P.O.BOX 3109-30200
Kitale, Kenya
Tel: +254 727 080 225
E-mail: mdajopenwaste@yahoo.com
Contact Person: David Ngige

Industry: Waste Management

Funding Raised: Received KES. 916,000 in seed funding in 2016

Funding Required: Seeking KES. 5.52M to scale up the production

Use of Proceeds:
- Scale up production

Revenue Forecast (KES.):

2018	2019	2020
2.5M	10M	15M

Competitive Advantage:
The Dajopen fertilizer:
- Balances soil PH
- Enhances water retention capacity of soil
- Increases organic carbon content of soil

Management Team:
- Joseph Macharia – Chairman
- Rose Nduleve – Vice Chair
- David Ngige – Secretary
- Joyce Njabi – Assistant Secretary
- Defence Wakesho – Treasurer
- Peter Ngige - Patron

Number of employees: Members are employees. Currently there are 34 members

Business Description
The Dajopen Waste Management (DWM) is a registered community-based organization based in Kitale. It seeks to tackle the socio-economic and environmental challenges of vulnerable communities through a community-based waste management strategy; including the collection of waste, the production of recycled items, and the training of other self-help groups on alternative livelihood opportunities.

Problem/Solution
The low and declining soil fertility is a major contributor to the diminished productivity of land. The prolonged use of chemical fertilizers coupled with poor soil management practices by farmers has led to high soil acidity. DWM recycles waste to make organic fertilizer and other products.

Products/Service
DWM collects bio-degradable waste to produce organic fertilizer. The fertilizer balances the soil pH, enhances water retention capacity of the soil, increases in the organic carbon content of the soil, enriches soil fertility, increases root aeration and increases crop yield. The group also produces ornamental products from plastic waste including decorative and household items.

Market
Dajopen considers small scale horticultural farmers as its primary market. With the current price increase of chemical fertilizers, the demand for quality organic fertilizers is expected to increase, thus, leading to increased growth and expansion of DWM. Currently our market share in the North rift region is less than 30%. However, DMW expects to reach 50% of the farming population in the North Rift and 20% in Western Kenya over the next three years. It also capitalizes on the trend where consumers are conscious about organic foods due to health concerns.

Competitive Landscape
The major competitors are the multinational chemical fertilizer companies, most of whom, have the financial muscle and have been in the market longer. However, as they produce chemical fertilizers, DWM has a competitive edge with its organic fertilizer. The potential competitors are the ever increasing urban waste recyclers.

Business Model and Distribution Channels
The organization's value proposition is supplying an organic fertilizer that helps to heal damaged soil. The fertilizer is sold at an affordable price and due to the use of waste materials; it fosters a clean environment. The key activities of the organization in the production include collection and recycling of biodegradable waste. Required resources are: waste, human resources and land. The major costs that are incurred are transportation of waste materials, buying of packaging materials, licenses, taxes and equipment for production. Revenue streams will be mainly from sales of organic fertilizer to farmers.

Traction to Date
Dajopen has won several awards including NETFUND GIA and was the finalist in World Habitat Awards. To date, the organization makes at least KES. 2.5 Million annually.

Takawiri Enterprises

TAKAWIRI ENTERPRISES LIMITED
P.O. BOX 19091- 40123, Kisumu, Kenya
Contact Person: Michael O. Otieno
Tel: + 254 720 668 591
Email: mike@takawiri.org

Industry: Waste Management

Funding Raised: Secured KES. 750,000 in seed funding

Funding Required: The business requires an investment of KES. 2.92M to scale up

Use of Proceeds:
- Recruitment
- Equipment and machinery
- Commission large scale production

Revenue Forecast (KES.):

2018	2019	2020
1.9M	3.4M	5.6M

Competitive Advantage:
- Customized and Unique products
- Business experience
- Unique raw material (water hyacinth)

Management Team:
- Michael Omondi Otieno - CEO/Founder

Number of employees: 7

Business Description
Takawiri Enterprises Ltd (TEL) was established in 2006 and is located in Kisumu. It uses water hyacinth and waste paper to produce one of a kind, unique paper products (including gift bags, notebooks, business cards, and greeting cards), craft items and handmade stationery.

Problem/Solution
Lake Victoria faces a probable environmental catastrophe due to ecological destruction due to the invasion of the water hyacinth. This prolific weed depletes the waters of oxygen and raises the toxicity levels for fish. It has also disrupted all economic activities in the lake including fishing and tourism thus threatening the livelihoods of the community around. TEL therefore uses water hyacinth as an intervention in the control and management of the weed.

Products/Service
Takawiri Enterprises Ltd. is a pioneer enterprise in Kenya to use water hyacinth for production of paper. This makes its products unique, attractive and of superior quality. TEL is currently involved in developing four main products namely: Strawboard for hardcover binding and folders; Envelopes; Seasonal Cards and gift bags.

Market
The market for paper related products is huge. The customers range from bookshops, stationery suppliers and supermarkets forming TEL's major distribution channels, schools, corporates and even local and international tourists. TEL is also leveraging on the recent ban of the use of plastic bags by the National Environment Management Authority (NEMA) on its move to curb environmental degradation.

Competitive Landscape
TEL's biggest competitors are the leading paper manufacturers including Pan Africa Paper Mills, Madhupaper, Kenya Mills and Chandaria Industries, who use wood and waste paper to produce their paper. However, TEL's uniqueness is in its raw material. It is one of the first businesses in Kenya to use water hyacinth for production of paper, this makes its products unique, attractive and of superior quality.

Business Model and Distribution Channels
Revenues are drawn from the sale of the four focus products. TEL plans to distribute its products every week on a regular basis to its customers. TEL engages its own sales force; as well as distributors and retailers for the distribution its products. Price is item specific and is done according to customer orders. However any pricing strategy takes into account the production costs and a mark-up for profit.

Traction to Date
Following the ban of plastic bags, Takawiri has repositioned itself in the alternative bags market. TEL has been part of NETFUND's Incubation program since 2015 and has also received seed funding that enabled fabrication of a calendaring machine and pulping machine that has enhanced production by up to 80%. TEL has also contributed towards control of water hyacinth in Lake Victoria by managing over 20 tons of the weed.

Corec Limited

COREC LIMITED
Mutarakwa Lane, Off Komarock Road, Kariobangi South
P.O BOX 12825 – 00400, Nairobi, Kenya.
Tel: +254 727 546 439
Email: Oscar.aghan@gmail.com
Contact Person: Dr. Aghan Oscar

Industry: Waste Management

Funding Required: Seeking and investment of KES. 50,000,000 to acquire a new tile line that will increase its production output

Use of Proceeds:
- Equipment and machinery
- Business Expansion
- Marketing

Revenue Forecast (KES.):

2018	2019	2020
84m	104m	129m

Competitive Advantage:
- Environmentally friendly products
- Project Management package
- Quality products
- Experience and expertise
- Budget friendly

Management Team:
- Dr. Aghan Oscar – CEO
- Dr. Torooti Mwirigi – Operations Director
- Dr. Rose Kiura – Finance and Administration Director
- Dr. Dennis Nturibi – Business Development and Marketing Director
- Ihsmael Hezekiah - Administrator

Number of employees: 15

Business Description
Continental Renewable Energy Co. Limited was founded in 2012 but began operations in 2013. It manufactures polymer and sand production formulation for the manufacture of roofing tiles, fencing posts & plastic lumber. Key products are COREC Resin roofing Tile and Fencing Posts.

Problem/Solution
Nairobi, the capital of Kenya, generates over 2650 metric tons of waste every day, 20 % of which is plastic. Over 70 % of the total waste is disposed of by crude dumping, ending up littering streets, in open fields and clogging sewer. The challenge that COREC seeks to address thus is to reduce the amount of waste in landfills, curb deforestation rates, inadequate affordable housing, stem slum proliferation, and infrastructure vandalism. It does this through the development and provision of products made using mixed post-consumer waste blended with sand. These affordable products have a high quality and durability thus saving the builder on construction costs while giving them aesthetic products.

Products/Service
COREC produces high quality and durable resin bonded roofing tiles, Man Hole Covers, Plastic lumber Planks and Fencing poles/ posts. These products compare with the best in the industry. They are available in different colours to fit the client's aesthetic needs. They are also affordable and durable. COREC also fabricates machines which are of numerous applications in polymer processing industries along with roto moulding machines.

Market
There is high demand for building products in Kenya. COREC is taking advantage of an emerging market opportunity to become a highly distinguished and recognized industry leader in the manufacture of composite building hardware using recycled plastic waste. It targets locals who include individual home builders, County government contractors, and private real estate developers. These are most viable potential customers for the commodity. The company seeks to promote its products and create a brand for itself in a highly growing and competitive real estate industry.

Competitive Landscape
Current key competitors include producers of concrete tiles, clay tiles and iron roofing sheets.

Business Model and Distribution Channels
Revenue is generated from the sale of the company's four key products: fencing posts, lumber planks, roofing tiles and machine fabrication.

Traction to Date
- Production capacity – recycling 560 tons of plastic waste annually
- A five-year strategic financial plan
- Established a customer base of 2,000 clients
- Developed a product portfolio of relevant and quality products
- Set up a production plant

Trace Eco-Solutions Limited

TRACE ECO SOLUTIONS LIMITED
P.O BOX 167-20116
Gilgil - Nakuru, Kenya.
Contact Person: Kevin Mureithi
+254 0722114217
Email: kevin@tracekenyagroup.org

Industry: Waste/Recycling /Construction
Funding Raised: Raised KES. 1.3M in seed funding in 2017

Funding Required: Not Available

Use of Proceeds:
- Product certification
- Marketing
- Health and Safety training
- Equipment

Revenue Forecast:

2018	2019	2020
1.8m	5.2m	8.9m

Competitive Advantage:
- Eco tiles and blocks are: lighter, cheaper, resistant to growth of molds, aesthetic, easy to stack and build, and 100% recyclable
- Established strategic partnerships

Management Team:
- Kevin Main - Founder/CEO
- Hope Mwanake - Co-Founder

Key Advisors:
- Sophie van den Berg - Senior Solid Waste & Recycling Adviser, WASTE NL
- Prof. Frido Smulders - Associate Professor of Design, Innovation & Entrepreneurship, Technical University of Delft, the Netherlands
- Saskia Reus - Director Business Incubation Program, Aqua For All & CEO Africa Funded

Number of employees: 7

Business Description
Trace Eco Solutions is a vibrant social enterprise currently based in Gilgil, Nakuru County and has been in operation since 2014. It produces and sells eco-friendly building products such as roofing tiles and building blocks made out of waste plastic and glass.

Problem/Solution
Solid waste is one of the main environmental polluters especially in urban areas. UNEP estimates 1,000 tons of plastic and glass waste are generated daily in Kenya, with Nakuru at 45 tons per day. However, only less than 10% is recycled. As a result, they fill up many urban spaces causing pollution and eventually get drained in to rivers during rainy periods. Trace therefore offers an environmentally friendly and economically beneficial solution by using the crushing the glass waste in to glass sand and using it to make different construction products such as paving blocks.

Products/Service
Trace Eco Solutions Limited produces roofing tiles and building blocks made out of waste plastic and glass. The company borrows technological and technical ideas from other proven and renowned international players in the sector such as Eco pavers in Hong Kong and Tereco Pty in South Africa. The machines crush glass waste in to glass sand compress them at certain pressures to form blocks and tiles

Market
There is high demand for building products in Kenya with an estimated 300,000 housing units deficit annually. The demand for roofing tiles has also increased with construction companies importing the tiles to meet market demand. Trace's target market include: individual home builders, County government contractors, and private real estate developers.

Competitive Landscape
Trace Eco Solutions seeks to pioneer production of ecofriendly, affordable and durable building products from discarded postconsumer waste materials such as glass and plastic waste, industrial leftover fly ash and quarry dust. Current key competitors include producers of concrete tiles, clay tiles and iron roofing sheets. However, Trace's products stand out in the market by being the only ones made out of two problematic waste materials; glass and plastic. Trace also takes advantage of its competitive strategy of low-cost based and first to market approaches.

Business Model and Distribution Channels
Raw waste materials (plastic and glass) are sourced from both formal and informal recycling enterprises within and outside Nakuru county. Shredded plastics costs between KES. 30 – 40 per kg while glass at KES. 10 per kg. Production is carried out in Gilgil where the crushed glasses and plastics are pressed into a hard to break roofing tile ready for sale.

Traction to Date
The company has recently set up a pilot manufacturing plant in Gilgil with a capacity of recycling about 40 tonnes of plastics in a month and producing about 30,000 roofing tiles. They have also set up a glass recycling line with a capacity of 4 tonnes/ hour and a block machine that produces at least 3,000 blocks in a day.

Qtron Industries

Qtron Industries
making life reliable and easy

QTRON INDUSTRIES LTD (QIL)
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Contact Person: Joseph Gakuru

Industry: Waste Management

Funding Raised: Received KES. 577,267 in seed funding in 2016

Funding Required: Seeking KES. 6M to scale up the production

Use of Proceeds:
- Upscaling production
- Opening 3D printing hubs in Nairobi

Revenue Forecast (KES.):

2018	2019	2020
500,000	2M	

Competitive Advantage:
- Domain Expertise
- Defensible IP
- Estimated Market Leadership

Management Team:
- Joseph Gakuru, Founder & C.E.O
- Farmer Kamau, C.T.O

Number of employees: Not Available

Business Description
Qtron Industries Limited (QIL) is a consumer and industrial electronic automation startup offering software and hardware support services. QIL ventured into a new field of industrial automation with 3D printing technology in a bid to mitigate environmental concerns and production costs.

Problem/Solution
In order to address environmental issues related to increasing e-waste, and to ensure their storage, transport, treatment, reuse, recycling, recovery and disposal is conducted in an environmentally sound manner, a proactive approach is essential. Thus the Qtron Industries Limited (QIL) initiated an e-waste management initiative that promotes economic, social as well as environmental objectives through utilizing the e-waste as a raw material to fabricate a 3D Printer.

Products/Service
- Design, manufacture of 3D printers for industry and consumer
- 3D printing services which include printing, scanning, designing of 3D models
- Developing 3D printing software and support services such as installation, calibration, periodic preventive maintenance.
- Offering training workshops

Market
Research shows that there is increasing need for 3D printers due to the prevailing advancement of technology both in informal and formal sectors. This is an indication that this is not a market segment that is declining any time soon. The application of 3D printing especially in healthcare sector is expected to grow rapidly which further boosting the overall market growth of 3D printing. Aerospace and automotive are the largest end user segment and expected to grow fastest in future.

Competitive Landscape
QIL's competitors include African Born 3D, FabLab Kenya, and Gearbox. However, to differentiate itself, QIL has developed a printing software that helps streamline the 3D printing experience. QIL offers cloud based 3d printing services, thus eliminating the inefficiencies of centralized mass production for small time printing jobs, large stock and long distance shipping hustles. The auto-arrange feature automatically positions objects across multiple build plates to print them sequentially. Companies established in Industrial automation are potential competitors.

Business Model and Distribution Channels
QIL provides affordable consumer and industrial 3D printers, and associated 3D printing technology. It seeks to accelerate the advent of sustainable industrialization, by providing innovative green processes and place a 3D printer on the desktop of every educator, engineer, industrial designer, entrepreneur, and architect as well as in every home. Printers range from KES. 35,000- KES. 40,000 depending on specifications.

Traction to Date
To date, QIL has managed to refine the production of the printers thus able to meet the growing customer needs. Additionally, it has managed to acquire new customers through various market linkages established by NETFUND.

Sai Green Africa

SAI GREEN AFRICA LIMITED
Contact person - Gabriel C Magumba, CEO/Founder
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Website: www.saigreenafrica.com

Industry: Waste Management

Funding Raised: N/A

Funding Required: The business requires an investment of KES. 50M to scale

Use of Proceeds:
- Infrastructural Development
- Machine and Equipment purchase
- Upscaling production

Revenue Forecast (KES.):

2018	2019	2020
16.2M	24.1M	39.825M

Competitive Advantage:
- Pioneer in the local and regional market
- Unique (made from starch) biodegradable and re-bags
- Customized bags as per requirement of clients
- Better and tough product compared to other small scale suppliers

Management Team:
- Gabriel Magumba - Marketing and Finance Director
- Silas Sanya - Operations Manager

Number of employees: 32

Business Description
Sai Green Africa Limited is the brain child of a passionate group of social entrepreneurs. It engages in the production and selling of standard and customized bio degradable bags made from vegetable oil derivatives, starch and vegetable waste. The bags are soluble in water and biodegrades in the environment in 180 days.

Problem/Solution
The disposal of plastic bags has been the biggest problem in Kenya. According to UNEP, prior to the ban close to 100 million plastic bags were given by supermarkets annually, most of which ended up littered. Plastic bags are non-biodegradable and can last up to 100 years in the soil, hence reducing its fertility. They are also an eye sore and pose a risk to animals like livestock. This has elicited the need to promote alternative bags. SGA thus offers a biodegradable substitute to plastic bag made from vegetable oil derivatives and waste, and starch.

Products/Service
SGA produces biodegradable and eco-friendly bags which vary in size, print, with an option of customized message of label. The company offers a more flexible alternative to plastic bags on sizing options to cater for the entire spectrum of different packaging needs from both the large corporates to micro enterprises. Vegetable starch is used to strengthen the bags to be as strong as plastic bags. The outer layer is of good quality and presentable.

Market
There is a huge demand of carrier bags in Kenya, so much that supply does not meet it. This huge demand-supply gap is partly due to a lack of any big player in manufacturing of biodegradable bags. SGA has identified a potential niche market on the high demand of alternative products to the plastic bags from the Kenyan retailers and even domestic users. There is demand for bin liners, packaging bags, seedling bags among others.

Competitive Landscape
The carrier bags sector in Kenya was dominated by plastic bag providing the basic carrier and packaging needs to both industrial and individual users. Many of SGA's target market use clothing bags, sisal bags, papyrus bags and some still use plastic bags which are still available in some rural areas and are thus the biggest competitors. However currently there are limited players producing biodegradable bags giving SGA a competitive edge.

Business Model and Distribution Channels
SGA utilizes an exclusive volumes based distributor network to scale. Distributors focus on two market segments; General Commercial and SMEs involved in retail, hospitality and general traders, supermarkets, pharmacy, general provisional stores, Clothing and electronic showrooms, event management companies. SGA products are locally produced hence affordable and are also environmentally friendly.

Traction to Date
SGA has already identified and engaged potential customers. It has secured buy-in from regulatory agencies like NEMA and has signed contractual agreements with its key players. It has identified and secured a location to set up the production plant

Kenya Ceramic Project

KENYA CERAMICS
pure water for drinking

KENYA CERAMIC PROJECT
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Industry: Water and Sanitation

F**unding raised:** KES. 1.36M as seed funding in 2016

Funding Required: Seeking and investment of KES. 27M

Use of Proceeds:
- Purchase of equipment
- Operational cost
- Branding
- Expansion

Revenue Forecast (KES.):

2018	2019	2020
700,000	1,700,000	4,000,000

Competitive Advantage:
- Locally fabricated
- Environment friendly
- 99.9% purification
- Affordable

Management Team:
- Managing Director
- Finance Manager
- Production Manager
- Marketing Manager

Number of employees: 40

Business Description
Kenya Ceramics Project (KCP) is a health initiative aimed at developing and promoting innovative ceramic technologies to address the need for clean and safe water. The business was created in 2009. It is located in Kiminini – Kitale.

Problem/Solution
13 million Kenyans lack access to clean and safe water for domestic use. Only 65% of Trans Nzoia residents use improved sources of water. This consumption of unsafe drinking water from more than 35% of the residents has led to an increase in the prevalence of water borne diseases in the region. The quality of water has tremendous effects on human health both in the short term and in the long term. KCP thus seeks to fill the existing gap by enhancing accessibility to clean and safe water in Trans Nzoia County through the production and distribution of Ceramic Water Filters (CWFs) and proper sanitation practices among the residents.

Products/Service
The organization's main and current product is Ceramic Water Filter (CWF). The CWF is a low cost water filter made from clay and sawdust. It is highly effective and can eliminate up-to 99.9% bacteria and other pathogens. KCP's main services entail training the community on health matters that pertains water purification and environmental conservation.

Market
Safe drinking water being a challenge in Kenya provides an opportunity for any technology that will solve the problem. Though rain water and that of boreholes can be available for use, factors like treatment or boiling it have to be considered and this makes it expensive for a common citizen. Kenya ceramics provides filters that once installed; no energy is needed nor finances to keep it working.

Competitive Landscape
Currently, the market for clean and safe water is dominated by bottled waters which are expensive and in most cases out of reach to most local poor residents. Within the project environment market, there is a reasonable size to exploit given the ever expanding customer base estimated at 1.8 million. KCP projects to command 58% of local market.

Business Model and Distribution Channels
KCP's business model revolves around five main areas namely customers, key partners, product, value proposition and strategic alliance. Revenue streams are mainly from sales of ceramic water filters and service fee (Training and consulting). One filter cost KES. 1,250 in wholesale price and KES. 1,550 for the retail price. KCP strives to offer affordable products at the least cost possible at a reasonable rate of investment return. The least cost strategy will allow for the expansion of market share thus exploitation of economy of scales.

Traction to Date
Since inception, the company has purchased some necessary machinery, hired general staff members, trained employees on all aspects of the business, sought new marketing avenues, conducted community sensitization on WASH, environment and conservation, and established a business niche.



NETFUND

Leading the way to a greener future

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