NETFUND GREEN INNOVATIONS AWARD

Green First!

Turning grass root initiatives into green companies in Kenya



One of the greatest challenges of our time is achieving economic development without harming our natural resources and local communities. Turning grass root initiatives into green companies in Kenya can play a critical role in solving this dilemma.

NETFUND GREEN INNOVATIONS AWARD



Solutions
are available and are profitable too

Dear Reader,

Here are **two facts that should not both be true:**
Our economy relies heavily on natural resources to support people's livelihoods and to contribute to national income.
Our huge potential for economic growth is threatened by environmental degradation.
We've seen changes that send signals that Kenya's environmental resource base and indeed its economic base is slowly being depleted and degraded.

When we talk about the **link between environmental degradation and poverty**, what we're really talking about is **cutting down a tree to sell charcoal**, growing cash crops with chemicals that acidify our soils, dumping otherwise reusable waste. In order to truly combat environmental degradation, **we must be innovative**.

The NETFUND Green Innovations Award program **works with innovative grass root initiatives** that have the potential for economic growth, to generate employment and income at the same time as conserving our natural resource base.

We believe innovation, solutions and development can take place anywhere at any time by anyone.
We hope GREEN FIRST! will be a source of inspiration for your continued efforts in a green direction.
Join us in turning grass root initiatives into green companies.

We are ready to inspire and assist you.

Sincerely,

Catherine Ndegwa
Chief Executive Officer
National Environment Trust Fund

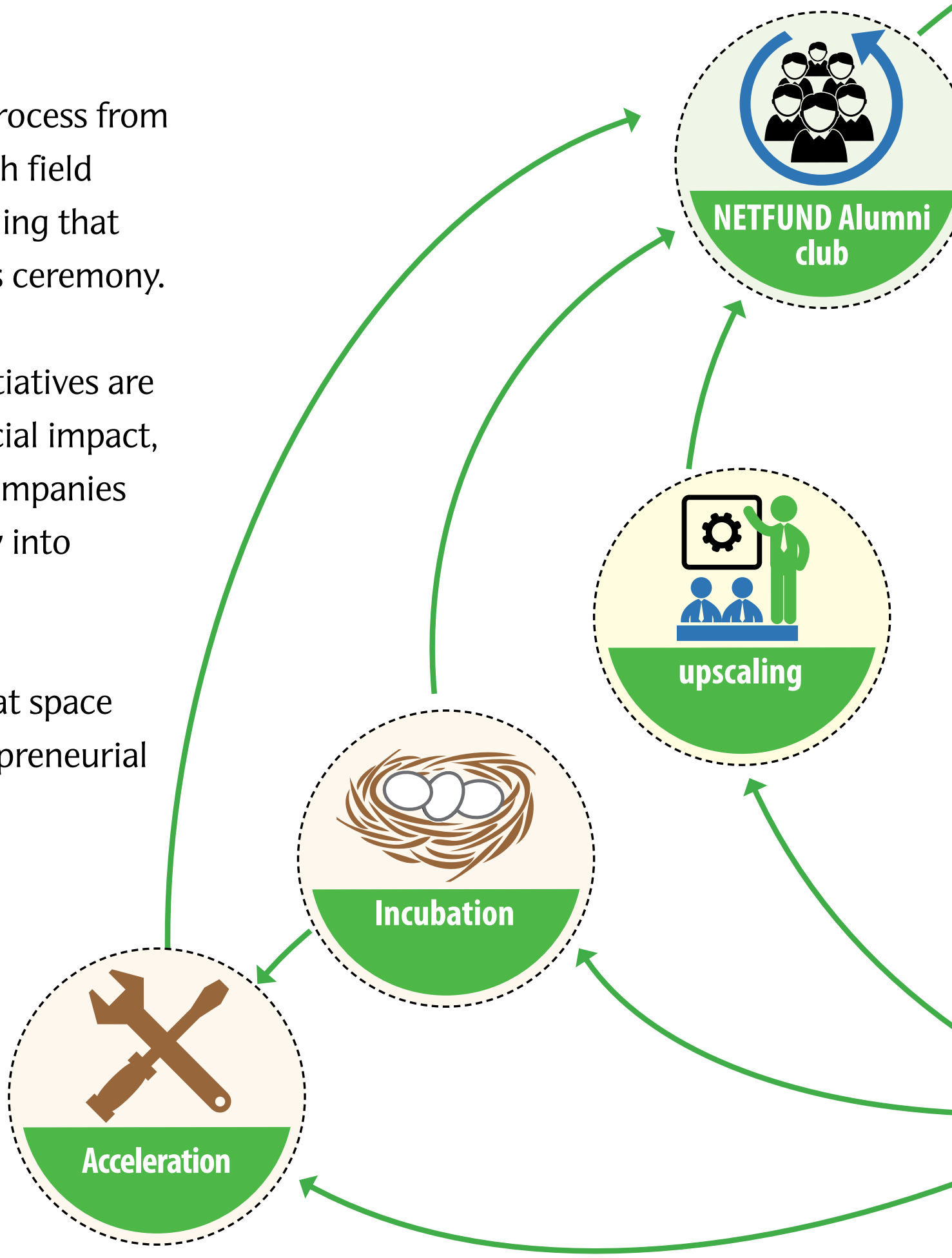
How we work is
unique

We rally for the participation of all Kenyans to the “people’s award” through our launch and call for entries.

We host the selection process from 1st level judging through field visits and 2nd level judging that culminates in an awards ceremony.

The most promising initiatives are upscaled for greater social impact, incubated into green companies and supported for entry into markets.

Our alumni offers a great space for growing these entrepreneurial networks.



NETFUND Green Innovations Award Process



Launch and call for entries



1st level judging and selection



Field verification



2nd level judging



Awarding / gala night



Top of the Pyramid



Middle of the Pyramid



Bottom of the Pyramid





Unparalleled Inclusive Selection

We engage all Kenyans from the bottom to the top





Our 360° approach

Access for all: from the bottom to the top" is the strategy we employ for our call to green initiatives to express their interest in getting involved in the NETFUND Green Innovations programme. Our audience expects communication that is tailored specifically to their lifestyles. And that is what our 360° communication approach delivers.



Digital Media

We advertise on radio vernacular st reach all communities and can be sp on popular television channels, daili magazines and on outdoor advertis



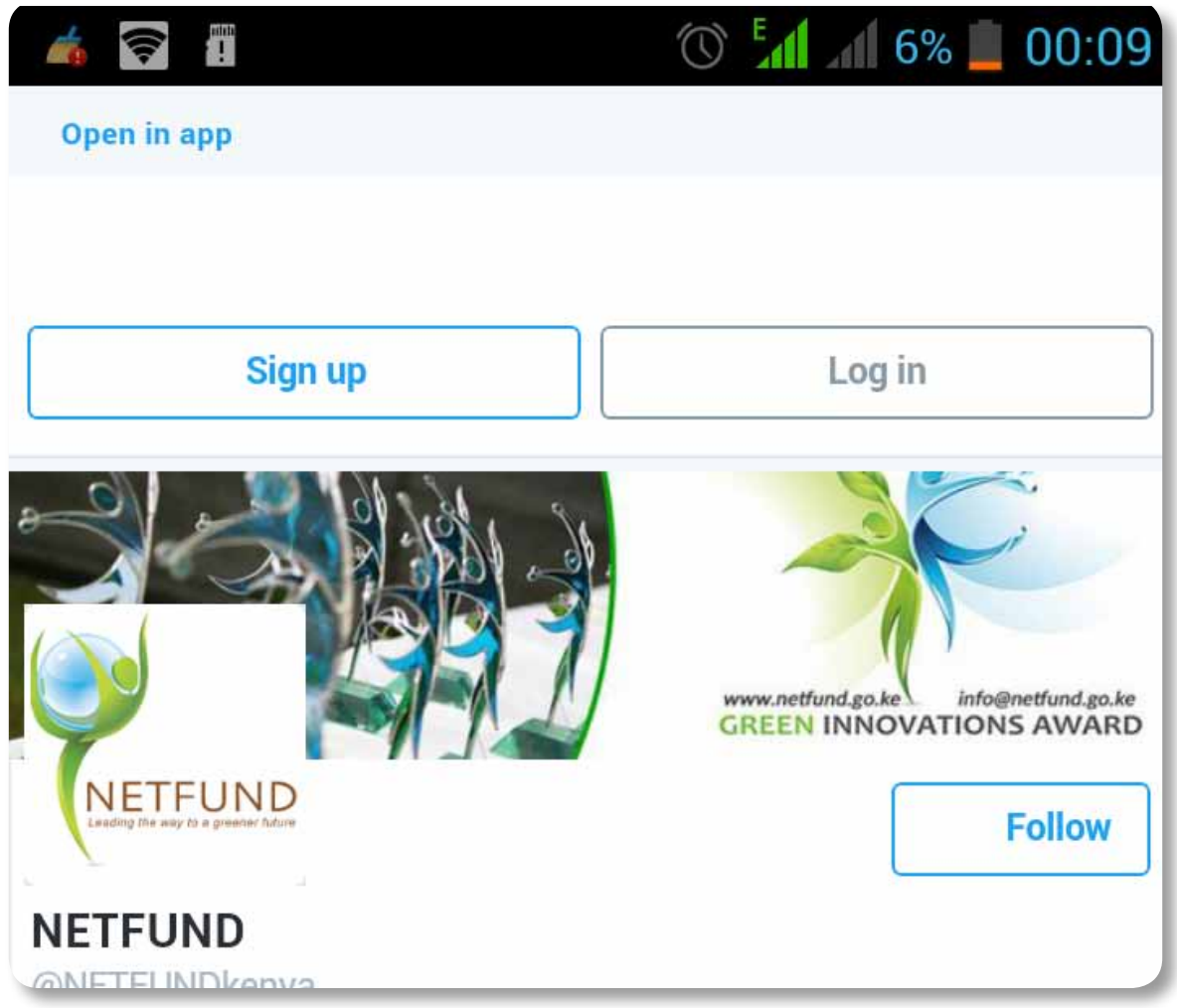
Partnership

We partner with our sisters in Government where their countrywide offices information desks to reach every county in the country





ations to
potted
ies,
ing.



Social Media

Our audience can decide when and where they watch videos or connect online through twitter, face book, our website and our partners' websites



Scouting

We send out scouts who comb even the remotest areas and help those Kenyans in submitting application forms.

Connect with us on social media: National Environment Trust Fund Kenya @Netfundkenya

The NETFUND (not-so definition of Innovation

Designed to recognize and support innovative practices, the NETFUND-Green Innovations Award programme brings on board a diverse body of judges who we feel are objective, respected, and knowledgeable in their category. We share their inspection criteria and insight into one frequently asked question by those interested in the programme: *How do you tell if an initiative is innovative*?

The **Enterprise Developer**

Fredrick Kariuki, Enterprise Development Consultant; Founder, CEO & Lead Consultant - Enterprise Resource & Development Consulting Ltd An Enterprise Development and Training consultancy.

"Innovation is Today's Holy Grail, the most potent means of creating wealth. In order to be innovative - doing things differently and better, the firm must avoid inertia and perpetually keep vigil, flexible and responsive. Better still a firm must out-innovate the innovators or run out of growth. And just like Olympic hurdlers, innovators must leap a series of high barriers successfully; failing at any one means failing in general"

The **Academic**

Evans Amata, Consultant in Finance, Entrepreneurship and Business Incubation and Dean in the School of Business and Economics at Daystar University

"I think that if you want to successfully implement innovative technology, you should be doing three things: proof of concept, prototype and pilot. No one wants to spend money to procure a patent and never built a prototype to test."

-oxford)

The Business Expert

Daniel Wanjohi, Regional Representative – East Africa at United Nations Foundation - Global Alliance for Clean Cookstoves

"Innovation can be local and not necessarily be about offering a novelty. The local untapped potential is great if a viable platform is provided as NETFUND has started doing. The differentiating factor from the mainstream innovations is that, they uses local talents and minimizes the use of expensive and scarce resources or leverages them in new ways. The result is solutions that are robust in harsh environment, user friendly and easy to maintain, and are often adaptations of existing technologies to new uses. A famous example of a local innovation is the cheap, mass-produced rubber prosthesis suitable for uneven terrain and developing country conditions."

How innovations are judged

The diverse body of judges independently inspect the thousands of entries submitted during the Call for Entries, rating each one based on its respective judging criteria. The criteria defines what qualifies as innovative in the NETFUND-Green Innovations Award programme.

- ✓ Initiative submits an application before the deadline runs out
- ✓ Initiative employs new approach or better processes
- ✓ Initiative exists in the market but employs unique approaches to solving community problems
- ✓ Initiative results in new/improved products and services

What do they look like?

The categories offer insight into how the entrepreneurial activities are organized

Individuals **32%**

Women groups **24%**

Small and medium enterprises **18%**

Civil society organizations **16%**

Primary and secondary schools **9%**

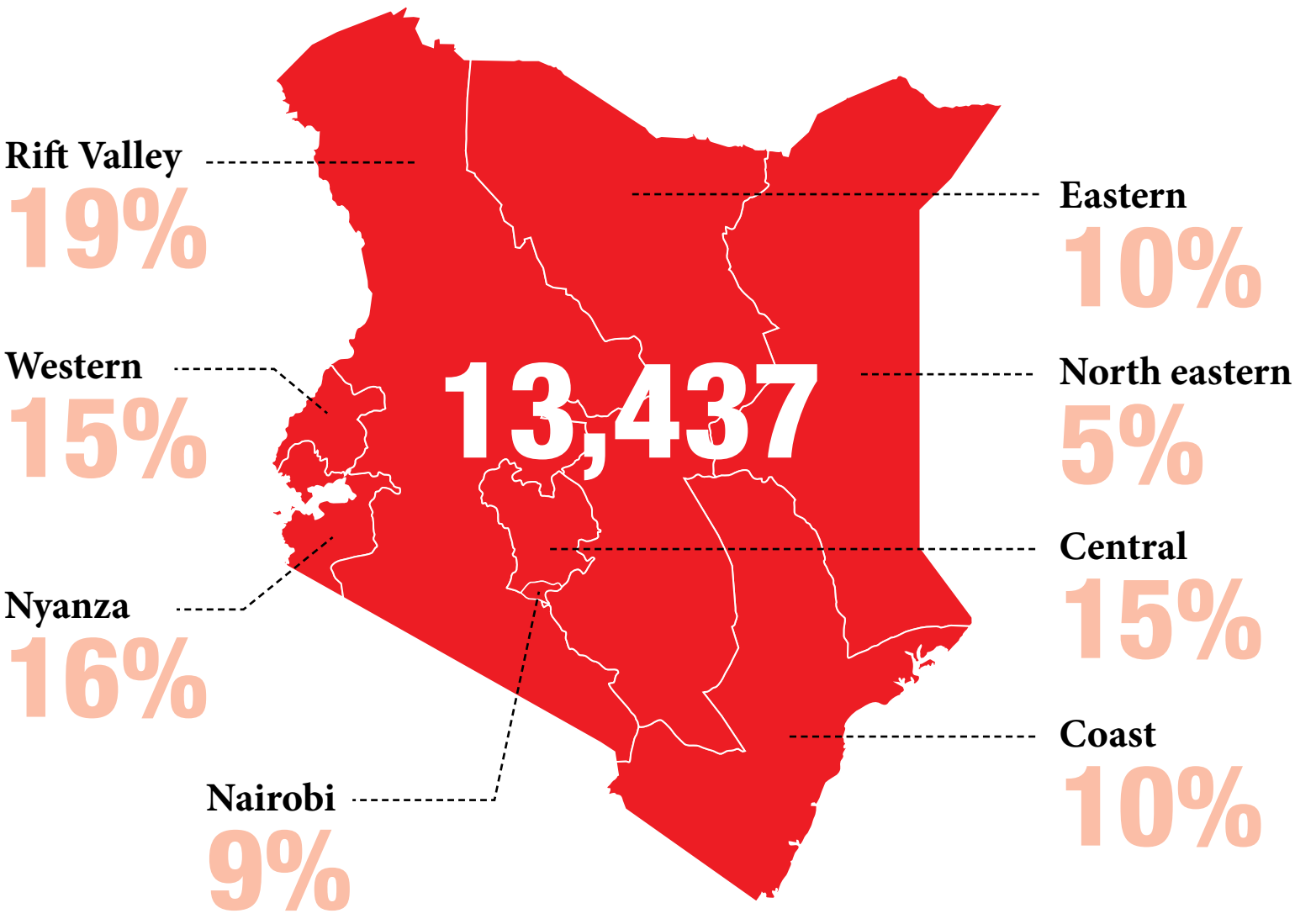
For more information go to: **netfund@innovation.org**

Entrepreneurship rising

Numbers and projections are one way to tell the story of why turning grass root initiatives into green companies in Kenya is critical. We hear of job opportunities being a significant challenge yet of those in employment 7 out of every 10 are in natural resource-related sectors. We look at the rise of green entrepreneurship through the lens of the NETFUND GIA programme.

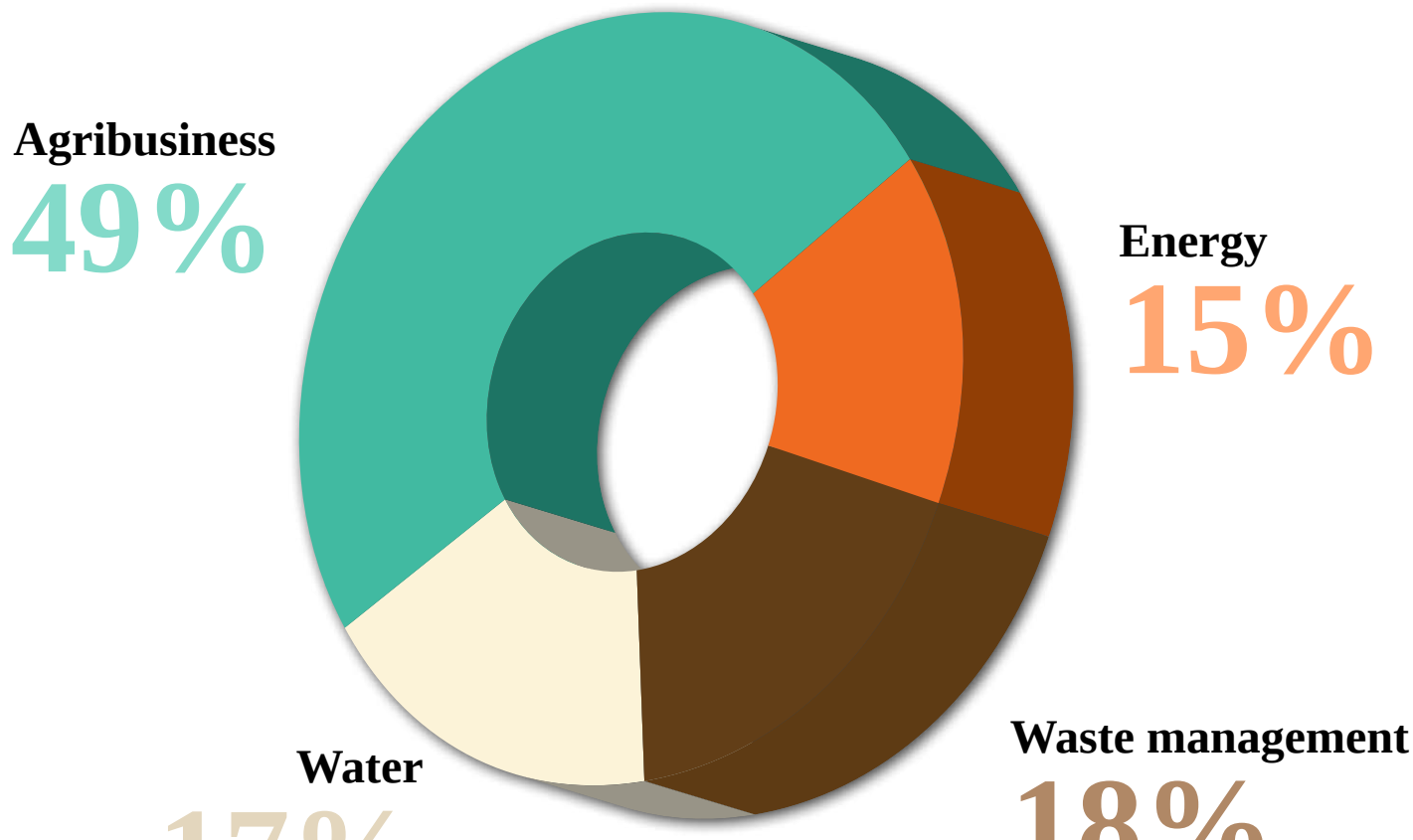
Where are they?

A look at the average total number of entries handled in NETFUND-GIA phase 3

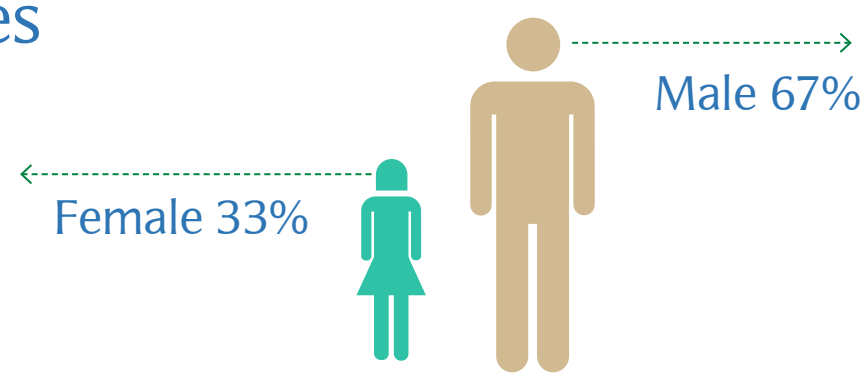


Sector snapshot

The highest number of entries for the November 2015 call were in the agribusiness sector. Below is how the other sectors looked.



Total number of entries received per gender:
Female 33%
Male 67%



ideas

An idea can change the world and the entries were not short of ideas

- Gas powered generator
- Shoe polish from waste water
- Biogas from water hyacinth
- An energy hub
- High Speed water cycling craft
- Alternative and Ecofriendly Construction
- Indoor farming of termites
- Hair Extensions from banana fiber

Look out for the next call for applications on **www.netfund@go.ke**

The NETFUND Gree

The figure of those recognized for their efforts in environmental innovations continues to rise.

Previous awards of the NETFUND-GIA

This infographic lists the winners awarded in the past NETFUND-GIA phases. The awards are split by category and divided by the number of awards won.



2 Community Based Organizations

2 Civil Society Organizations

3 Energy

3 Green Villages

6 Individuals

11 Learning institutions

3 Small & Medium Enterprises

3 Water

n Innovations Award

Nominees of the NETFUND-GIA phase 3

The top entries are included on category-specific shortlists after further evaluation by the body of judges. Due to the fact that only three nominees, including one overall winner, can be chosen for each category, other entries that are worthy of recognition are eligible to receive special support. Phase three entries came up short in the schools categories and we take a look at the nominees



Women

- Millennium Mushroom for Life in agribusiness
- Mrian Ecocultural & Development Resource Center in agribusiness
- Kikai – Value from the banana plant in agribusiness

Civil Society Organizations

- Banana Fiber Production in agribusiness
- Cold Trout Fish Farming in agribusiness
- Lofoda-G(Goat)-Meal in agribusiness

Individuals

- Folia Dasimz – Natural pesticide from medicinal trees in agribusiness
- Hydro – Turbine Water Pump Set in water
- Green Gates Conservation Project in water

Schools

- Green Bio-Fuel from water hyacinth in waste management

SMEs

- Gorge Farm Energy Park in energy
- Sweet N' Dried Enterprises in agribusiness
- Sustainable Cage Aquaculture in agribusiness



Centre for Green Enterprise Development

Only the most promising initiatives gain entry

NETFUND GREEN INNOVATIONS AWARD

NETFUND Incuba

Our performance one year following inception...

INCUBATOR BENCHMARK SCORECARD

NETFUND GREEN INNOVATIONS AWARD

01 INCUBATOR PROFILE

ORGANIZATIONAL BACKGROUND

NETFUND Green Innovations Award
Nairobi, Kenya



Unique ID: AF0042
Website: netfund.go.ke
Founded: 2014
University Affiliation: Daystar University
Sector: Cleantech

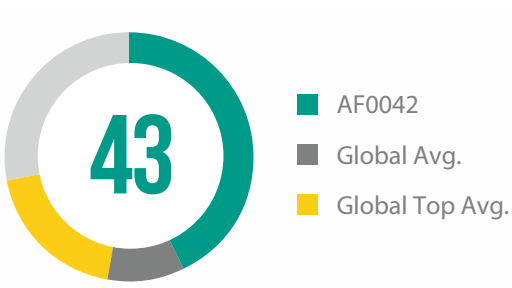
University Affiliated | Business Incubator | Non profit

$50k–$200k — Operational budget
5 — Full time employees
Yes — Seed fund
12 mo — Program duration
15 — Average applications received per year
6 — Average applications accepted per year

mo= months, k=thousand, m=million

02 GLOBAL PERFORMANCE SCORE

YOUR BENCHMARK SCORE 2015



03 GLOBAL PERFORMANCE

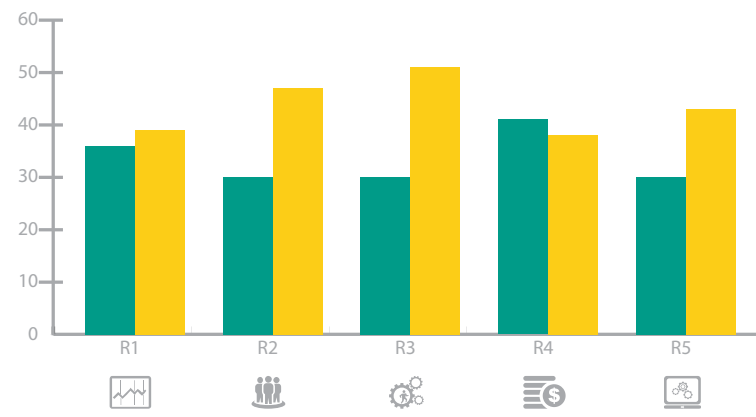
COMPARED TO INCUBATORS IN THE WORLD

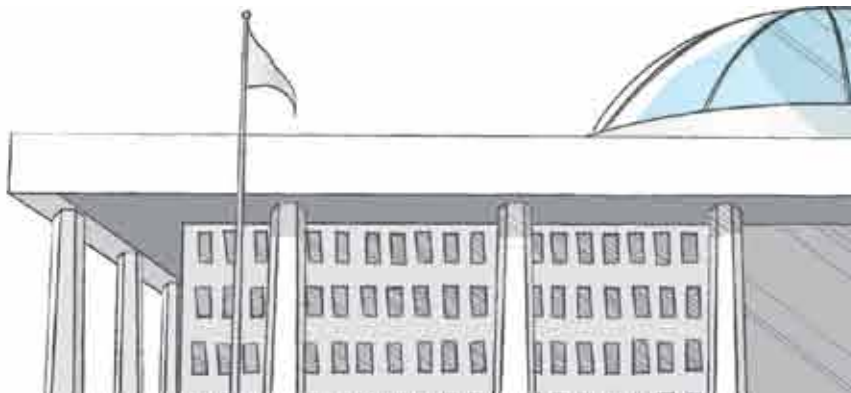


UBI GLOBAL FRAMEWORK ©

04 REGIONAL PERFORMANCE

COMPARED TO INCUBATORS IN YOUR REGION

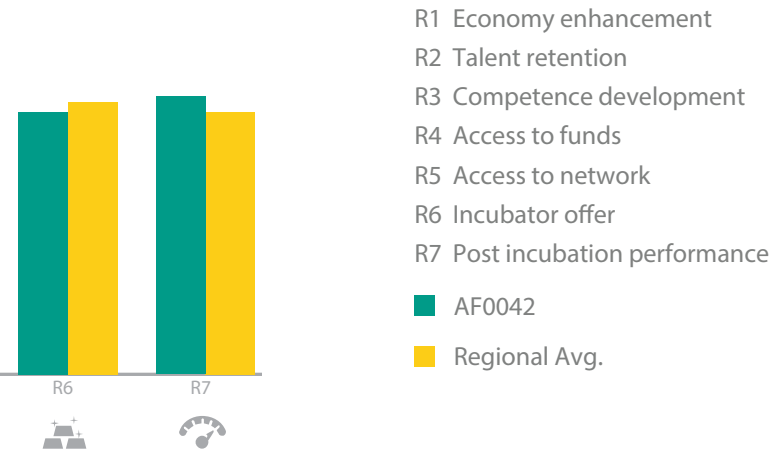




tion centre profile

15/16







The NETFUND-GIA programme designed a bridge to the challenge of transforming grassroot initiatives into green companies.

The NETFUND Incubation Centre is designed to continuously improve and what better way of getting a baseline of its value than by subjecting it to an external evaluation.

The report card highlights the performance of the NETFUND Incubation Centre when measured against university business incubators globally.

NETFUND

Incubation Services

Integrated provision of the services most needed by entrepreneurs.

1

Infrastructure

- Office space
- Conference room and facilities
- Switch board services
- Shadow boards
- Office equipment
- Computers
- Internet



2

Development Program

- Business training
- Expert seminars
- Online and offline library



3

Legal services

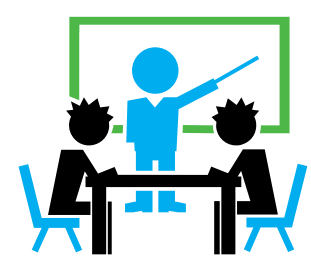
- Patenting and certification
- Business registration
- General legal services



4

Mentorship support

- Team of experts – 1 technical and 1 business expert for each business
- Access to university lecturers
- Pool of experts



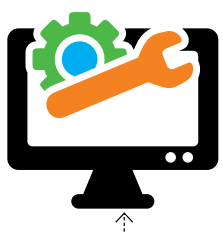
If those in employment in Kenya were a village of 100 people, 82 of them would be in the informal sector where the start-up environment can be significantly hostile for one with no history of success, limited finances and inaccessible business services.

New entrants in the green innovation process have the opportunity to gain the much needed support at the NETFUND Incubation Centre.

5

Product development

- Prototype development
- Technology refinement
- Product testing



6

Marketing

- Showcasing innovations in trade shows, events
- Branding
- Development of collateral
- Website development
- Customer development support
- Market intelligence



7

Financial

- Access to venture capitalists
- Access to low interest loans
- In house investment funds
- Access to grants
- Financial information



8

Networking

- Access to databases
- Linkages to strategic partners
- Linkages to service providers

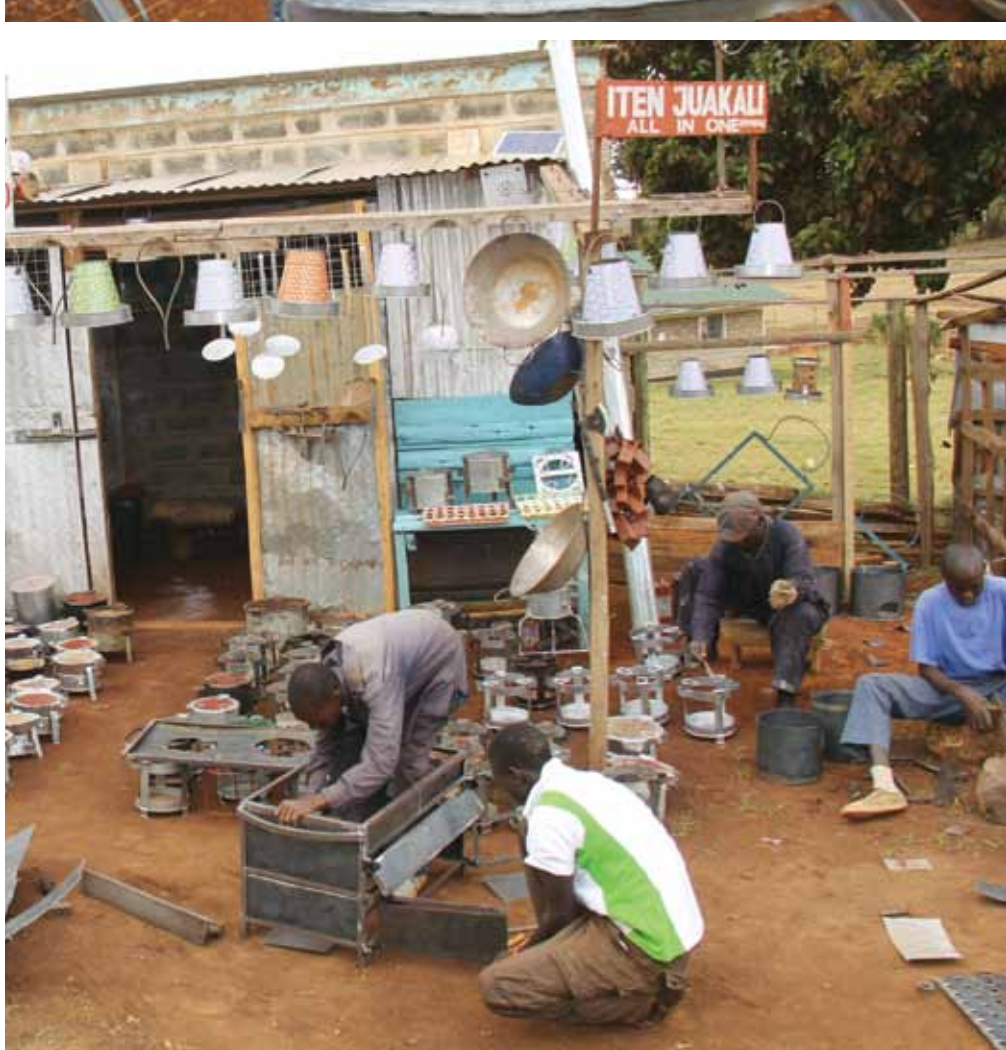


To learn more about our incubation model, visit our incubation centre at **Geomaps Centre, Upper Hill Matumbato Road**








ITEN JUAKALI
ALL IN ONE



Eco Jiko Company

Energy saving jiko with in-built food storage and water boiler

ECO JIKO's target is to offer a cooking solution that uses less biomass to the rural household. Research shows that biomass provides for more than 80 percent of rural households' energy requirements and 85 per cent in urban areas.

Alex Kiplimo designed an eco-jiko that is not only efficient in the use of woodfuel but also offers a compartment for storing food and a system of using excess heat to heat water for kitchen use.

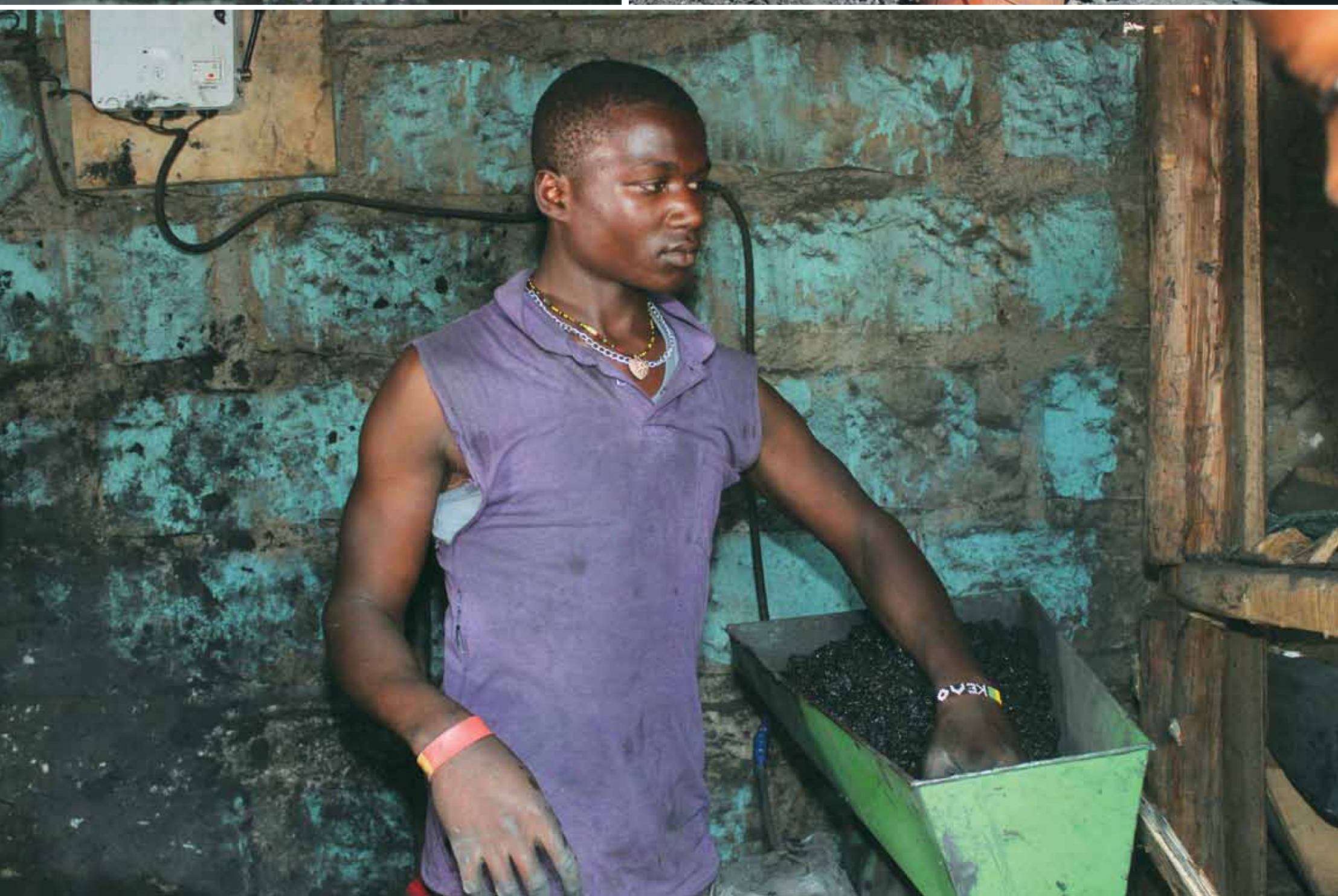
Inadvertently, he is empowering women to not only save on cooking time because it cooks fast but it also saves on fuel wood costs. An added benefit is that eco-jiko reduces on indoor air pollution creating a suitable cooking space with the use of a customized chimney.

Through the NETFUND Incubation programme, ECO JIKO is mentored by a team of business and technical experts. They work with him to refine the cook stove technology, patent it and engage in showcasing events.











Maa Briquette

Smoke free, energy efficient briquettes

On graduating from university, George Mochu, now managing director of Maa Briquettes, found it extremely challenging to find employment. He sought opportunity in reusing otherwise dumped waste - charcoal dust, maize stalks and waste vegetable matter from Narok market for use as raw materials. In the collection of the raw material, Maa briquettes offers employment opportunities to casual labourers as well.

Maa briquettes are smoke free briquettes and burn longer than charcoal and are adaptable for both household and business use such as in small local hotels. Besides this, Maa briquettes on total average cost less than charcoal and can be used in a variety of cookstoves.

From the NETFUND Incubation program, George has received support in incorporating his business and now keeps books of account for his business. His business has also benefited from seed funding for the installation of machinery where with the acquisition of a new premises he hopes to hit his target market.











Pak Fab

Briquettes for Industrial use

Paul Kairu was keenly aware that poor waste management contributed to environmental degradation. He gladly points out that it is not uncommon for one to spot piles of rice husks set on fire along road sides in an attempt to get rid of it as unwanted material.

As he pondered over this problem of waste and environmental degradation, his exposure in the machinery fabrication industry led him to thinking of a way of using this waste to develop a marketable solution in this industry. His entrepreneurial nature led him to the big idea of making compressed briquettes.

His company, PAK FAB produces high energy, compressed briquettes for use such as in industrial boilers sourcing his raw material from saw mills and other waste. Through the NETFUND Incubation programme, PAK FAB is now incorporated, has had its products tested with Kenya Bureau of Standards. He has also mechanized his processes with seed capital in order to up his production capacity.




SH


PEMBROKE
BROILER
PELLE



Takawiri Enterprise

Handmade stationery from an aquatic Weed

With no natural predator water hyacinth quickly multiplies and in the right conditions, the plants can double every five to 15 days. A menace to the fragile ecosystem found in Lake Victoria. However a source of raw material for Michael Otieno. The use of water hyacinth in paper making may be but a small part of controlling and managing of the weed. However, the biggest impact is in the economic opportunities it offers the youth that assist Michael in harvesting the raw hyacinth.

Takawiri Enterprises manufactures envelopes, straw board and gift packaging from water hyacinth and recycled waste paper. The production process used is environmentally friendly. No chemicals are used and the water is recycled. The screen moulds are left in the sun to dry and a compressor produces uniquely textured paper.

Business development training at the NETFUND Incubation centre has helped Michael develop a plan on how he will target the niche market of textured paper. He has currently automated his processes in order to increase his production from 5,000 bags a day.

The next green bu

We have seen green initiatives come and go. Here are 30 initiatives from the entries submitted in the NETFUND-GIA phase 3 that we feel have the potential to turn into great companies.



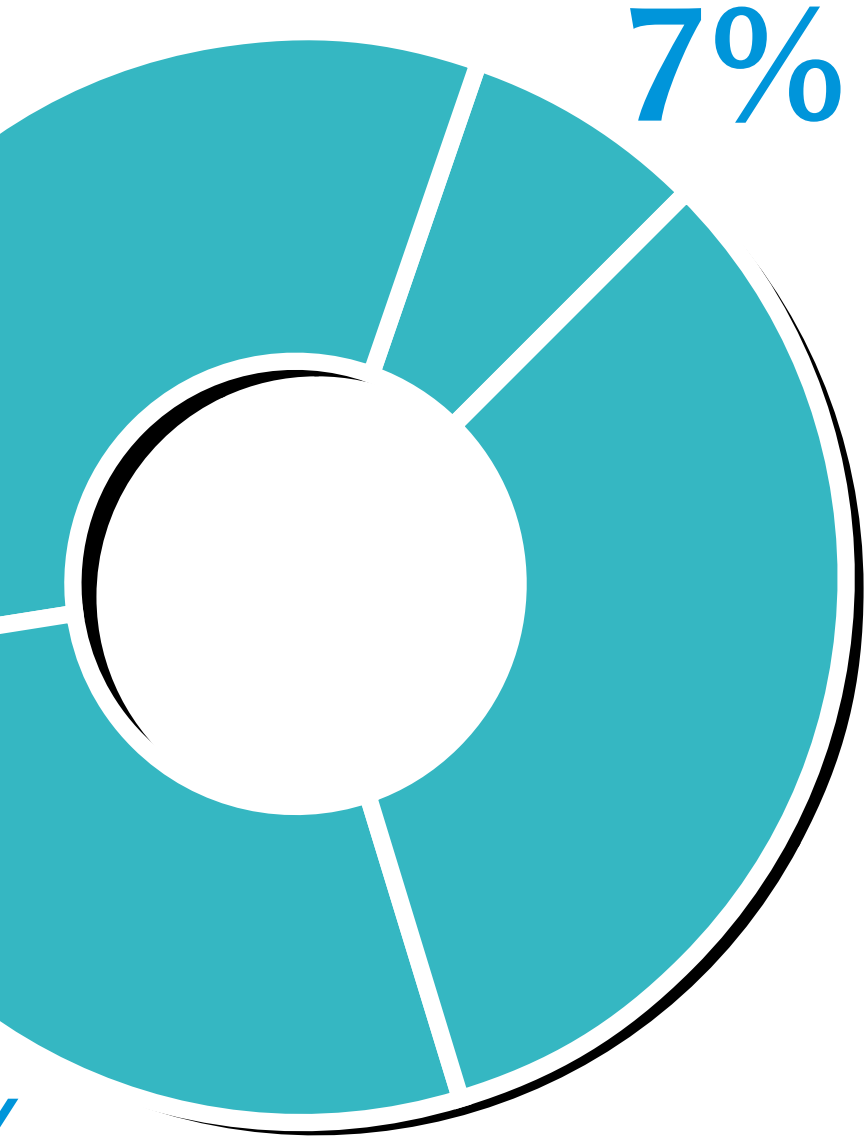
Waste management

- **3D printer and scanner from e-waste** – *fabricated locally*
- **Bones & value chain** – *ornaments from waste camel bones*
- **Termite resistant sustainable building materials** – *Made from agricultural waste*
- **Global sanitation environmental project** – *low cost incinerators for sanitary wares*
- **Shoe polish from pure water sachet waste** – *recycling of waste from a leather tannery plant*
- **ECO BAG** – *Recycled bags made from PVC*
- **Production of hair extension from banana fiber waste**
- **Bottle bill project** - *A bottle recycling system*
- **Eco Knight Boards** – *Eco friendly housing materials made from waste organic waste*
- **Wood plastic composite** – *Nonperishable eco products from plastic waste*

Energy

- **Automated integrated power backup** - *Made from locally available raw materials*
- **Bio-moto** - *A low cost, smokeless cooking stove known that uses bio-fuel*
- **Green bio-fuel** – *Produced from from water hyacinth*
- **High temperature incinerator** – *made from scrap metal*
- **Biogas purification** - *With lye made from banana fiber*
- **Biogas distribution** – *distribution through a network of pipelines*
- **Bradley Energy Hub** - *a generator that does not run on fuel*
- **Solar E-cycle** – *a bicycle powered by solar energy*

sinesses to watch



Water

- **Hydro-turbine water pump set** - *innovative pump set that uses a water turbine to pump water*
- **Kenya ceramics project** *– locally made clay water filters*

Agribusiness

- **Ujuzi Kilimo** – *Locally made, handheld device with probes for analyzing soil nutrients*
- **Kloppet complete liquid foliar** - *Liquid fertilizer made from assorted natural plants, including water hyacinth*
- **Alternating current incubator** – *A chicken incubator able to use both direct current and alternating current*
- **MRIAN ecocultural & development resource centre** - *Promoting nature-based activities such as honey value addition*
- **Lofoda G-Meal** - *Locally formulated dairy goat meal*
- **Banana fiber production** – *A substitute to sisal*
- **Sweet and dried** – *Mango fruit value addition*
- **Heri Tosheka woven treasures** – *Rearing of worms for silk production*
- *Production of black soldier larvae for livestock feeds*
- **Organically fortified rock phosphate fertilizer** – *Made from locally found rock phosphate*



Advocates for Green Leadership at the Grassroots

We seek to inspire other ordinary people to take extraordinary action

NETFUND GREEN INNOVATIONS AWARD











Dajopen Waste Management

Harnessing the power of organic waste to heal soils

If no precautions are taken, farming accelerates acidification. Soil acidity affects plants in two principal ways: by increasing the presence of toxic substances and by reducing the availability of important plant nutrients like phosphorus, calcium, magnesium and molybdenum. Toxicity also means roots are prevented from water and nutrients from deeper soil layers to be accessed.

Dajopen Waste Management works to fix this problem by manufacturing organic fertilizer. David Ngige speaks passionately about how applying organic fertilizer from bio-degradable waste materials heals acidic soil by retaining water, increasing the soil organic carbon content and increases root aeration not to mention the subsequent increase in crop yield.

Dajopen waste management recycles waste to produce biocides, garbage enzymes for preparation of organic manure and liquid organic fertilizer. They also run a community-led plant health clinic to educate local farmers on its application.

Currently at the NETFUND Incubation Centre, Dajopen Waste Management is one enterprise to watch out for in the year to come.











Magiro Power

Powering Mihuti Village

John Magiro's tells an intriguing story of how he started using recycled bicycle parts and simple motors to offer households in Mihuti village a 24-hour renewable energy solution that eases the burden of using dirty fuels for lighting and at a price 70% lower than any competitor in the area. Not only does he supply power but he also generates it from the nearby river and has a network of employees that offer after-sales service within minutes should any customer experience a power outage.

Through the NETFUND Incubation programme, Magiro Power plans to increase his capacity to reach 20,000 homes in the village. He has received support for the upgrading of his production system with construction of a power house and waterway. He has also received legal support in incorporating as a limited Liability Company from a sole proprietorship. Magiro Power is one to look out for in the year ahead and beyond.

Quote/Unquote

Our NETFUND judging panel which is composed of the competitively recruited experts, selected advisory committee members and the NETFUND appointed legal team provide some insight into the business advice and lessons learnt that inspired their success.

THE MECHANICAL ENGINEER

Eng. B. K. Kariuki, Director of Intellectual Property Management and University-Industry Liaison at Jomo Kenyatta University of Agriculture and Technology

"If you are in manufacturing, the process of procuring raw materials is of extreme importance and should be well managed"

THE LEGAL ADVISOR

Kimani Njane, Senior Associate at Mboya Wangong'u & Waiyaki Advocates

"Early in the process of establishing your business or creating a new product, you will want to protect your brand and innovations. most successful businesses across the globe are built around a strong intellectual property rights protection strategy."

THE BUSINESS DEVELOPER

Dr. Edward Mungai, Associate Dean of Strathmore Business School at Strathmore University

"The critical ingredient in positioning your product in the market is creating the right image of your product in the target customer's mind. It is about getting the customer to use the product and talk about it. Ask yourself: "Does every touch point look, say and feel like the brand I want my customers to perceive?"

THE PROGRAMME ADVISOR

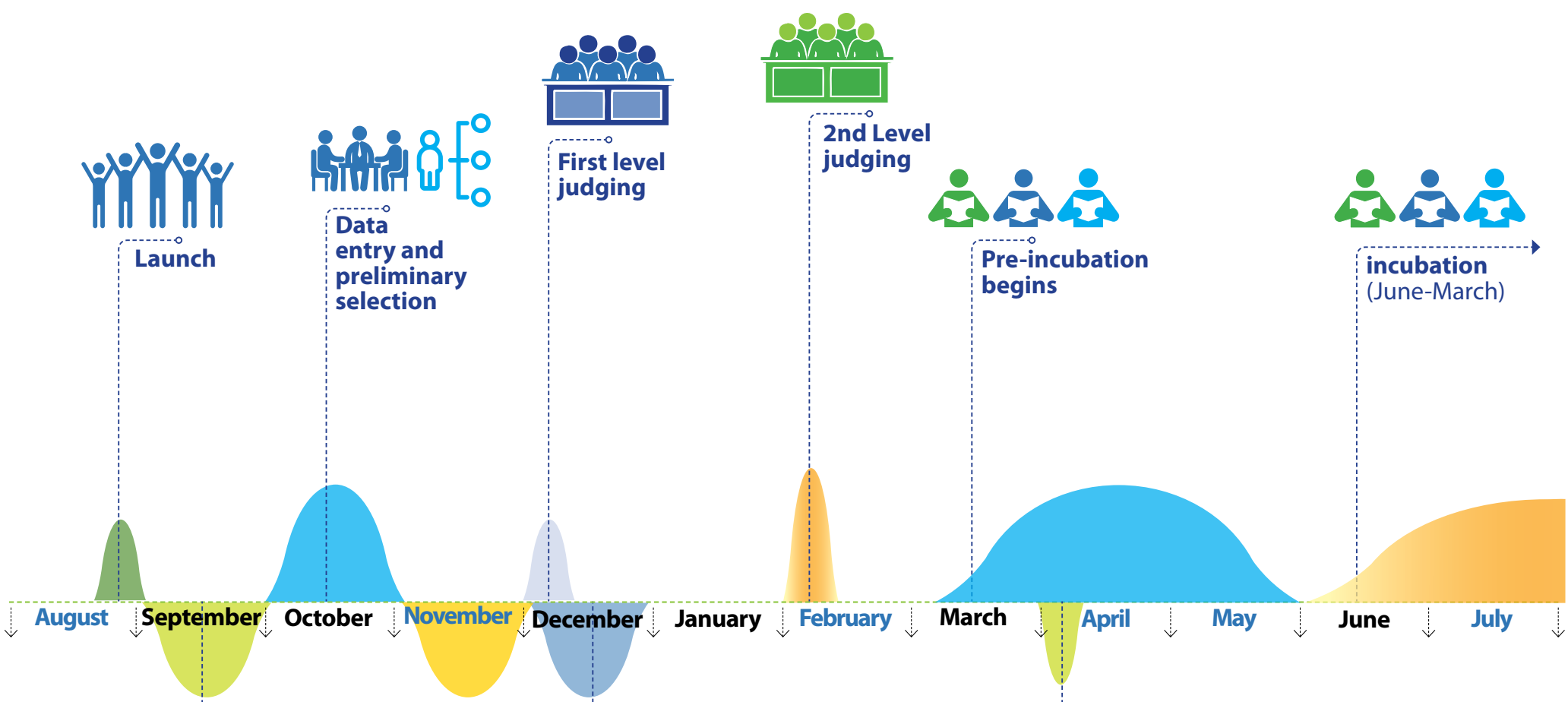
Dr. Ibrahim Ali, Former Board of Trustees at the National Environment Trust Fund

"Green technologies are often earlier in the development stage and not always commercial viable, making them more expensive and riskier ventures. Thats why you have to get involved in the NETFUND-GIA programme, it absorbs the startup risks for deserving initiatives."

In the Diary

Join the NETFUND-GIA programme in the experience of turning grassroot initiatives into green companies.

Award Implementation Calendar



National call for entries begins



Field verification



Awarding Gala, investors forum and expo



Netfund

Our Mission, Vision and Values

Our Vision

is a society empowered and motivated to sustainably manage the environment.

Our Mission

is empowering Kenyans to sustainably manage the environment through promotion and support of green growth.

NETFUND GREEN INNOVATIONS AWARD

Award Principles

Inclusivity

We engage the participation of all demographics of Kenyans through our publicity campaign and scouting techniques.

Innovation

We seek out initiatives that show resourcefulness and are accomplishing results with the available or non-traditional resources.

Partnership

We form mutually beneficial relationships with others so as to deliver better value to our beneficiaries.

Meritocracy

We consistently act in a way that promotes trust in the entire process. We support beneficiaries based on the real difference they are making through the creation of green initiatives.

EMBASSY OF SWEDEN
Nairobi

UNDP
Empowered lives.
Resilient nations.

nema
mazingira yetu | afuai wetu | wajibu wetu

WWF®

KENYA WILDLIFE SERVICE

THE JOMO KENYATTA FOUNDATION
Educational Publishers

LECRD
Low Emission & Climate Resilient Development Project

Bamburi cement

Thanks to our partn
NETFUND Green I
Programm

Hivos
people unlimited

USAID
FROM THE AMERICAN PEOPLE

KENYA
Forest Service

KCB

DAYSTAR
UNIVERSITY
Excellence • Transformation • Servant-leadership

WEF
Women Enterprise Fund

erc
Energy Regulatory Commission

POSTA
KENYA
Touching lives

ners for making the nnovations Award he possible

TALENT
TECHNOLOGY
WE NEEDED WE GOTTED
Tel: 0719 446362


ITEN JUAKALI
ALL IN ONE

National Environment Trust Fund
P.O. Box 19324-00202 Nairobi
Geomaps Centre, Upper Hill Matumbato Road
info@netfund.go.ke
www.netfund.go.ke