



# Our Story



Agribusiness



Renewable  
Energy



Commercial  
Forestry



Water  
Management



Waste  
Management

# ORGANIZATION BRIEF AND HISTORY



The Kenya Climate Innovation Center (KCIC) provides holistic, country-driven support to accelerate the development, deployment and transfer of locally relevant climate and clean energy technologies. The KCIC provides incubation, capacity building services and financing to Kenyan entrepreneurs and new ventures that are developing innovative solutions in energy, water and agribusiness to address climate change challenges. The Kenya CIC is an initiative supported by the World Bank's infoDev and was the first in a global network of CICs being launched by infoDev's Climate Technology Program (CTP). The Kenya CIC is currently funded by the European Union and Danish Ministry of Foreign Affairs.

KCIC was initially set up as a project by a consortium of partners in September 2012. From September 2012 – May 2016 KCIC's work was funded by United Kingdom's UKAID and DANIDA through the World Bank.

KCIC, as per its strategic plan 2020 - 2025, is working towards incubating more than 2700 scalable and commercially viable green technologies. **The target is to support these enterprises towards growth to commercialization ensuring that at least 58% become success stories.** Scalability and commercialization are essential for job creation and livelihoods enhancement. A total of 24,000 direct jobs are envisaged to be created through the KCIC-supported enterprises.



## OUR VISION

"To be a one stop shop supporting innovative climate change solutions and sustainable development in Kenya"



## OUR MISSION

"To provide business support, financing and awareness creation to empower the private sector to deliver innovative climate change solutions and provide strategic direction on matters policy, advocacy and sustainable development".

## THEMATIC AREAS

The KCIC's mission and goals is delivered through a range of services and programmes with a focus on the key sectors of Agribusiness, Water Management, Renewable Energy and Energy efficiency with an addition of new sectors of Commercial Forestry and Waste Management.



Agribusiness



Renewable Energy



Commercial Forestry



Water Management

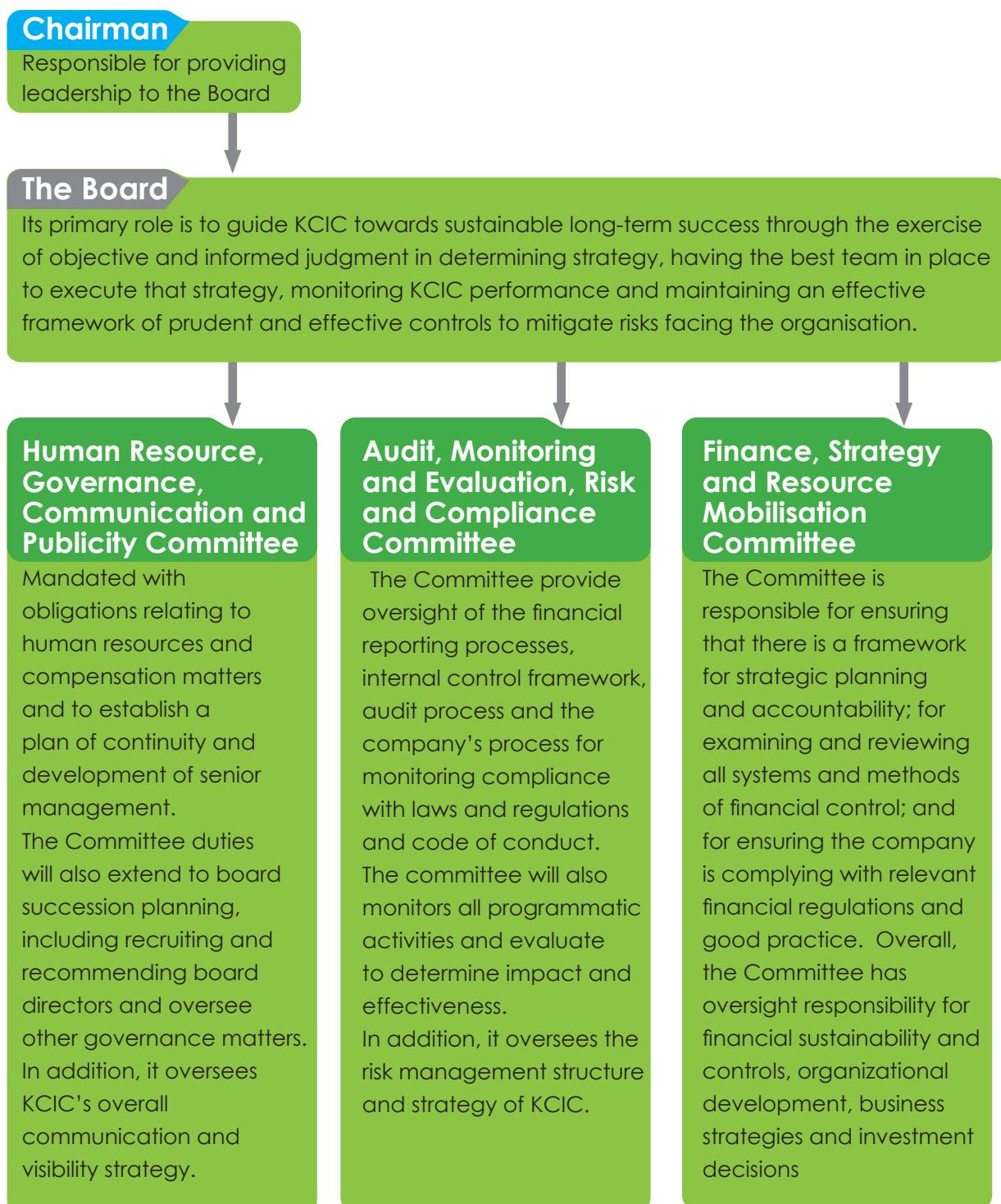


Waste Management

# SETUP AND GOVERNANCE



KCIC was successfully registered as a company limited by guarantee in January 2015. Currently KCIC is funded by the European Union and Danish Ministry of Foreign Affairs. The company's governance structure is as shown:



## SECTORS



KCIC's main areas of action are divided into Five sectors: Agribusiness, Water Management, Renewable Energy and Energy efficiency, Commercial Forestry and Waste Management.



## Agribusiness

### Background and Challenge

Agriculture, including crops and livestock, is one of the most important sectors in the Kenyan economy. It is the main source of livelihoods for the majority of Kenyan people in terms food security, economic growth, employment creation, and off-farm employment and foreign exchange earnings.

Agriculture production, though highly constrained by the low and erratic rainfall is still key economic activity in Kenya, accounting for 80% of formal employment and 26% of the gross Domestic Product.

In recent years the effects of climate change have become a reality in Kenya and have had a huge toll on the sector bringing with it an array of negative effects which have included among others, unpredictable climate patterns disrupting agricultural planning, extreme weather patterns (droughts, flooding, and change in rainfall seasons) and increase in number of pests and diseases . This has translated to failed crop seasons, loss of livestock, deaths as a result of drought and food shortage among others. Present day trends indicate that the situation is most certainly worsening with more extreme effects expected in the near future if deliberate action is not taken to address the existing situation.

### KCIC Solution

The agricultural sector can successfully navigate its way through the slow-moving operating environment it finds itself in through innovation. Kenya Climate Innovation Center is stimulating the agricultural sector through promoting the development of new climate smart agriculture technologies and practices that can be implemented on a commercial scale. We are also changing tried and trusted business model. We are accelerating the take-up of new technologies and practices in ways that better manage risk and better align investments and returns. KCIC supports innovative start-up ideas through support for Proof of Concept (PoC), incubation, Early Stage Financing (ESF), Result Based Financing and acceleration for high potential agribusiness innovations that seek to address climate challenges with emphasis on increasing food security.





# Water Management

## Background and Challenge

Access to safe water is estimated at 60% in urban areas and 40% in rural areas, while sewerage systems cover only 14% of the population. There is still a need in both rural and urban areas for improved access to water and better sanitation. While Kenya is classified as a water scarce country, water shortages have been exacerbated over the past few years due to drought, as well as urban migration placing increasing pressure on water sources. Poor sanitation and lack of access to clean drinking water is a major contributor to the prevalence of water borne diseases such as diarrhoea and cholera in communities. Water-, sanitation- and hygiene-related illnesses are currently the number one cause of hospitalization in children under age five in Kenya, with diarrhoea as the third biggest cause of death in children according to the Ministry of Health and Sanitation.

## KCIC Solution

In order to address the challenges that have been identified within the sector, KCIC aims to create businesses in Waste Water reuse and recycling, rainwater harvesting, desalination, bio technology i.e. reverse osmosis, and smart metering among others. Our mission is to ensure the availability of clean and safe drinking water by supporting entrepreneurs who are developing innovative solutions in this area.



# Commercial Forestry

## Background and Challenge

When Kenya gained independence in 1963, 10% of the country was covered in forest. By 2009, this number had dropped to 6% as a result of charcoal and timber production, agriculture expansion, unregulated logging and urbanisation. Kenya's forest cover as of 2021 stands at 7.2%; according to the Ministry of Environment and Forestry. This percentage is short of the 10% cover that is to be achieved by 2022. Not only has this increased our contribution to climate change, it has had a number of other devastating impacts, including soil erosion, increased flooding and dramatically reduced availability of fresh water during droughts.

## KCIC Solution

We support innovations that bridge the wood-gap through responsible forestry harvesting, afforestation and re-afforestation while reducing the felling of trees.



# Waste Management

## Background and Challenge

Waste management is a major environmental and public health concern in many urban and rural areas of developing countries, Kenya included. Many urban and rural areas in Kenya are grappling with increasing waste generation, an overflowing dumpsite and pollution from uncontrolled discarding of waste. Sustainable waste management has remained elusive in the City due to lack of adequate funding and skilled personnel besides poor public attitude towards waste management. KCIC is supporting enterprises that come up with innovations and technologies in recycling and disposal of different forms of waste products.

## KCIC Solution

KCIC supports enterprises that come up with innovations and technologies in recycling and disposal of different forms of waste products. In this sector, we look for innovative business ideas that cut through the whole aspect of waste management which includes generation, storage, collection, transfer and transport, processing and disposal of both solid and liquid waste





# Renewable Energy

## Background and Challenge

Kenya having been classified as a middle-income country by World Bank is in need of renewable energy, to compliment what is being used to generate energy by the majority of people and to meet its Vision 2030 goals.

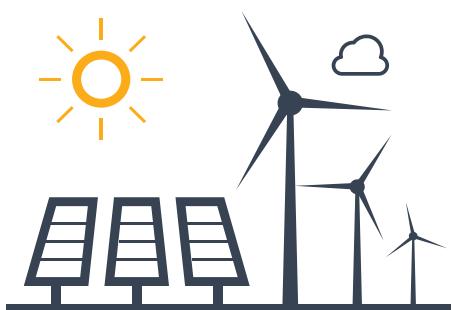
Kenya depends heavily on wood fuel and other biomass which account for 68 percent of the total energy consumption. Petroleum accounts for 22 percent while electricity accounts for 9 percent. Only 14 – 16% of Kenyan households are connected to the grid, which is a significant contributor to the energy divide in the country.

Kenya's population is estimated to be 43 million according to Kenya Bureau of Statistics. Among them, three quarters live in rural areas. Almost 90 percent of them are dependent on firewood for cooking and heating. That's not all, 10 percent of people living in urban areas are estimated to use firewood too. Kenya has the resources it needs to fully tap into renewable energy. However, this is yet to happen due to:

- Lack of access to technological information (entrepreneurs, consumers and financiers).
- Limited supply and high cost of capital.
- Low levels of investment.
- Lack of adherence to system standards by suppliers.
- Legal and regulatory barriers hindering SME's from participating in the sector.

## KCIC Solution

Kenya Climate Innovation Center supports Kenya's initiatives towards achieving a transformational change that will lead the country towards low greenhouse gas (GHG) emission development pathway by harnessing the abundant renewable energy resources in country.



# SERVICES



KCIC's services are themed around the service delivery areas provided under the Incubator and Accelerator programmes, although the scope of services is different for each programme. Under the incubator program, the aim is to prove or refine the companies' business models, while for the accelerator program, the focus is on growth pegged on agreed milestones. The five services that we provide to these early stage and start-up enterprises include:

## **Business Advisory Services:**

- Training and mentorship in business and management skills
- Networking forums and partnership support

## **Access to Finance:**

- Providing competitive financing services including proof of concept grants, early-stage Financing, result based financing, matching grants, seed capital investments, syndicate financing, etc.

## **Access to Facilities:**

- Providing enterprises with the use of office and technical facilities

## **Enabling Environment:**

- Engaging in advocacy by leveraging the direct experience of private sector innovators to drive policy change by informing government regulations, policies and strategies to encourage profitable local innovation

## **Access to Information:**

- Gathering, packaging and disseminating information in the clean technology sector, including the latest technologies and information on the local market

**KCIC**

Initially, we used to twine these sisal fibres on our thighs so that we can come up with the products. That used to hurt a lot. AgriBiz has supported us with a grant to buy a sisal twiner and brushing machine and our production capacity has increased hundredfold products. As a result, we have incorporated more farmers and engaged additional employees.

**Sophia Mutua,**

*the secretary of Makueni Sisal Forum Weavers*

We have increased on volumes and the list of our products. Initially we were doing only five products, right now we are doing almost 26 products given that we are able to reach the end consumer who also needs a big list of products per pick. The company specializes in aggregation of fresh fruits and vegetables. It has adopted different models to reduce the number of steps the produce takes from the farm to the end buyer with the aim of increasing incomes to farmers and reducing the purchase value for consumers

**Fidelis Njoroge,**

*founder and Director at Bulk Resources*

## KCIC INCUBATOR PROGRAMME

**12**  
Month  
Programme

targeting start-ups and early-stage businesses that have at least developed a prototype.

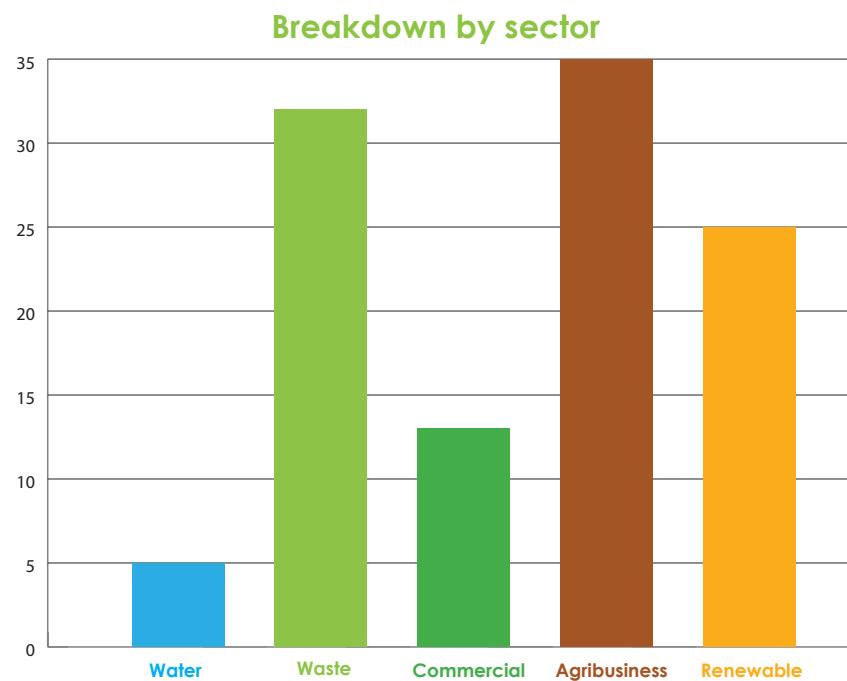


Figure 1: kcic greenbiz incubator programme portfolio

## KCIC GREEN TECH ACCELERATOR PROGRAMME

**8** Month  
Programme

in which clients receive highly individualized services aimed at:

Setting the clients on a rapid business growth path.

Preparing clients to be investor ready as well as raising investments.

## KCIC GREEN TECH ACCELERATOR PROGRAMME

The Kenya Climate Venture Limited (KCV) was established in 2016 by KCIC as an independent wholly-owned subsidiary with a grant from the World Bank with the following objectives:



To pilot an innovative facility that addresses the financing gap for promising start-up and early-stage climate technology companies in Kenya;



To develop investible, sustainable, and scalable enterprises that contribute to Kenya's growing climate innovation and clean tech sectors



To pioneer a sustainable, profitable investment model that can be replicated in Kenya and other developing countries.

# CLIMATE CHANGE AND THE SDGS



## 13 CLIMATE ACTION



On a global scale, emerging challenges associated with climate change resulting in land degradation, desertification and the loss of species point towards a threat to the survival of the world's growing population.

It is estimated that by the year 2050 the global population will be nine billion. This increase in the world's population is leading to a rise in the global demand for food and energy which further contributes to the depletion and degradation of natural resources and ecosystems.

There have been global concerted efforts to address the effects of climate change which culminated to the assenting of the Paris Agreement, which sets out a global action plan to combat climate change by reducing carbon emissions, increasing climate adaptation efforts, as well as averting, minimizing and addressing the loss and damage associated with the adverse effects of climate change.

Kenya's high dependence on climate sensitive natural resources for its livelihoods

and economic sustenance increases the country's vulnerability to climate change with adverse impacts on its agricultural, energy and water sectors. To address these challenges arising from the negative impacts of climate change within the Kenyan context, KCIC's thematic areas have, additionally, been designed to be aligned with the Sustainable Development Goals that were formulated as a universal call to action to end poverty.



KCIC support innovations promoting economic growth that provide sustainable jobs and promote equality



By investing in agriculture KCIC is playing a crucial role to increasing the capacity for agricultural productivity and sustainable food production systems



KCIC is creating partnerships between governments, the private sector and civil society in realization of the SDGs.



#### Clean Water and Sanitation

Supports access to safe drinking water and hygienic toilets to protect people from disease and enable societies to be more productive economically.

**KCIC supports clean-tech innovations that enhance access to clean water and affordable sanitation**



#### Affordable and Clean Energy

Supports access to affordable and reliable energy while increasing the share of renewable energy in the global energy mix.

**KCIC is in the frontline working with clean-tech innovators in solar and mini-hydro**



#### Industry, Innovation and Infrastructure

Supports the building of resilient infrastructure, the promotion of inclusive and sustainable industrialization, and fostering innovation.

**KCIC fosters innovation in clean-tech which supports job creation in the sector**



#### Climate Action

Supports urgent action to combat climate change and its impacts by regulating emissions and promoting developments in renewable energy.

**KCIC is increasing climate change adaptation through its programs**

In this way, KCIC is well positioned to take up the opportunity to champion the realization of the SDG goals by working with various partners in the advancement of the SDGs.

## IMPACTS



### AMOUNT OF REVENUE REALIZED



#### USD 36 million

The total revenues generated by KCIC clients

As clients received KCIC's services and implement the business advisory services delivered through the programs, more businesses have continued to show a trajectory of growth in terms of revenues generated.

### AMOUNT OF PUBLIC AND PRIVATE SECTOR FINANCE MOBILIZED



#### USD 47 million

KCIC clients have been able to attract worth



#### 235 clients

were supported to access external funds

The accelerator program whose main objective is to increase investor readiness of the clients continues to play a pivotal role in enabling the clients to create structures and systems that make the businesses attractive to external investors.

### JOB CREATED



#### 23,847 Jobs

Created by KCIC clients direct and indirect jobs since the inception of the organization.



#### 56%

of the jobs created represent women.

### TONS OF CO<sub>2</sub> EQUIVALENT MITIGATED



#### 420,866 tCO<sub>2</sub>e

KCIC clients have been able to mitigate

Through the sale of different low-carbon products to over 713,500 customers.

The different range of products sold includes cookstoves, briquettes, solar products, biogas systems, and biodiesel products, among others.

## CASE STUDIES



### Kimplanter – Young, female and Agriculturalist



There are few young people you meet and they inspire you so much. One such person is Carolyne Mukhi Mwangi. She was recently the 2019 Youth in Agriculture Award by President Uhuru Kenyatta. Kiambu County Government also named her a Shujaa on the 2019 Mashujaa Day celebrations and made her an ambassador for agriculture in the county. Carolyne is the founder of Kimplanter Seedlings and Nurseries and is one of the incubates under the AgriBiz programme that is funded by the European Union (EU) in Kenya.

Kimplanter Seedlings and Nurseries is a youth and Woman led company based in Kiambu County. The company specializes in seed raising /propagation for horticultural crops, such as tomatoes, cabbage, capsicums, spinach, kales, managu, broccoli, cauliflower and onions, herbs such as, basil, thyme, mint, sage, rosemary and lemon grass and fruits trees,

such as hass avocado, pawpaw, mango, passion, strawberry, and apples.

The seed raisings are sold to farmers of all capacities from large scale, small scale to kitchen garden and distributed conveniently countrywide. The business is combating climate change by adoption of drip irrigation in their greenhouse farming. Drip irrigation reduces water wastage compared to other irrigation methods.

#### RBF – 1,420,000

The impact:

1. The company currently employs over 25 staff (fulltime) with over 80% being women.
2. The company works closely with over 8,000 farmers from across the 447 counties in Kenya.
3. Following the financing they have generated over XXX in revenue.

## SimGas – Biogas energy solutions for rural households in East Africa



Every day, more than 3 billion people around the world rely primarily on solid fuels for their cooking needs, exposing them to indoor air pollution. The World Health Organization (WHO) estimates that there are 4.3 million premature deaths annually as a result of indoor air pollution exposure due to the lack of clean or modern energy services for cooking (World Health Organization, 2016). This is a problem that can be mitigated by using domestic biogas systems which provide clean cooking energy and organic fertilizer as a by-product.

Biogas, as an alternative to firewood, reduces carbon emission by 5-10 tonnes CO<sub>2</sub> equivalent per household per year. In addition, the replacement of wood fuel contributes to a reduction in deforestation. Biogas therefore provides a sustainable, alternative source of energy that can support energy security and lower greenhouse gas emissions.

SimGas is a commercial biogas company that develops, sells and installs biogas digesters for rural households in East Africa.

With 2000 sales to date, SimGas is already the largest domestic biogas company in Africa.

**KCIC provided a Proof of Concept grant of USD 35 000 to SimGas to develop and deploy remote monitoring and control devices for biogas digesters on a test basis.**

SimGas' systems aim to address the lack of a reliable and efficient system that verifies the use of the biogas system. The systems enable customer repayments directly linked to the performance of the system; as well as the ability to know the health of the biogas system and thus be able to take immediate remedial actions. By doing this, the company will be able to upscale biogas systems in rural Kenya and increase affordability of the system.

In the long run, the company hopes to optimize carbon emissions monitoring (time, costs, reliability of data), thereby making more global carbon funds available, and leading to increased affordability of renewable energy products for households.

## Maji Milele – innovating farming systems in East Africa



Maji Milele Ltd. is the first subsidiary company of Water Forever. Like their Dutch mother organization, they are a for-profit social enterprise. Their mission is to provide safe water for all Kenyans not only for a few years, but 'forever', meaning 'Maji Milele'.

Having been in the market for six years now, Maji Milele has managed to scale to over 30 counties across Kenya. Their products, prepaid and smart water meters and ATM water dispensers have been very well received across the country due to their durability, reliability and improvement of financial management.

Traditionally, the water sector was known as a difficult area for business but that is changing. However, both the private

sector and financial institutions are beginning to change their mind and increasingly showing keen interest to enter the market by looking into potential areas where they can invest so as to boost the Kenyan water sector.

Maji Milele received a proof of concept financing worth USD 25,703 to pilot the smart meter technology

### The impact:

**Maji Milele has installed over XXX smart meters and ATM**

**Maji Milele have been able to leverage XXXX in additional funding after the POC.**

# UPCOMING PROJECTS



## SUPPORT START-UPS AND SMES

This is KCIC's traditional portfolio that supports SMEs / MSMEs to develop innovative climate-smart solutions. Under this service, KCIC provides and will provide technologists, entrepreneurs and new ventures with business advisory services and access to early-stage financing (that includes proof of concept (POC) financing and early start financing) to increase the commercialization and competitiveness of green technologies. The range of services provided by KCIC under the business advisory portfolio includes business plans development;

- 1 Human resources (HR)** development;
- 2 Finance & legal** (business incorporation, accounting systems and tax obligations);
- 3 Intellectual Property Rights (IPR)** and product development and design.

With the new approach that holistically considers sustainability, SMEs and MSMEs will be supported to develop solutions that address a number of environmentally-related SDGs that include but are not limited to climate change, with a focus on those SDGs that directly relate to the sectors in which KCIC works (renewable energy and energy efficiency, agriculture, water, waste and commercial forestry).

## Kenya Climate Ventures (KCV)

KCV is an important implementation vehicle for KCIC, with KCIC's overall success depends on the number of projects KCV (and external/third-party financiers) can fund post successful proof of concept and early stage financing, both of which done through KCIC. KCV will continue to fund enterprises in the clean tech space to create positive environmental impacts. It is a separate legal entity from KCIC with an independent board and

an investment committee. It is, however, fully owned by KCIC. KCV bridges the financing gap between ideation and prototyping of an innovation and what is needed for commercial take off. This bridging of the financial gap for ready-to-take-off companies is critical in their growth trajectories for, without it, many start-ups, end up dying.

## WAREHOUSING

KCIC has noted that most clean-tech businesses lack access to proper facilities where they can store, display and distribute their products. To this end KCIC seeks to establish a warehouse where the clean-tech businesses can utilize these facilities. This will also profile the warehouse as a one stop shop for - solutions and thus increase the uptake of clean-tech technology in Kenya.

## ESFM

Alongside its incubation and acceleration facility, KCIC has launched a new financing tool - Early Stage Financing Mechanism (ESFM) – developed in the current financial year (2017/2018) to provide funding to early growth stage companies that find it difficult to access financing from conventional funders. The aim of the facility is to Leverage the incubation/accelerator program to help investee companies succeed and grow. This facility is characterized by:

- **Tolerance for high risk early stage investments.**
- **Flexibility compared to other traditional funders (such as banks) and investment funds.**
- **Provision of small amounts of initial funding, with limited follow-up funding.**

## **WOMEN AND YOUTH IN AGRIBUSINESS/AGRIBIZ II**

AgriBiz II will be a 5-year programme that seeks to act as a catalyst and an enabler for greater involvement of women and youth in agricultural and livestock value chains. It responds to the low level involvement of these two groups (women and youth) in agribusiness (women are mainly involved in peasantry) and the fact that older farmers are less likely to adopt new technologies and innovations in agribusiness, and the need, therefore, for concerted efforts in increasing the participation of youth in this sector. The primary focus of the programme will be to provide a range of services to 2,400 women and youth owned early-stage agribusiness enterprises as well as Small and Medium Enterprises (SMEs) over the 5-year period.

## **CENTRE FOR GOVERNANCE AND SUSTAINABILITY**

KCIC will set up a Centre for Governance and Sustainability (CGS) in partnership with Strathmore University. Strathmore University will provide office space to house the CGS. The CGS is designed to support companies and organisations realise their own specific Sustainable Development Goals (SDGs) targets. The Centre will be anchored on three pillars.



**Awareness Creation**



**Community of Practice**



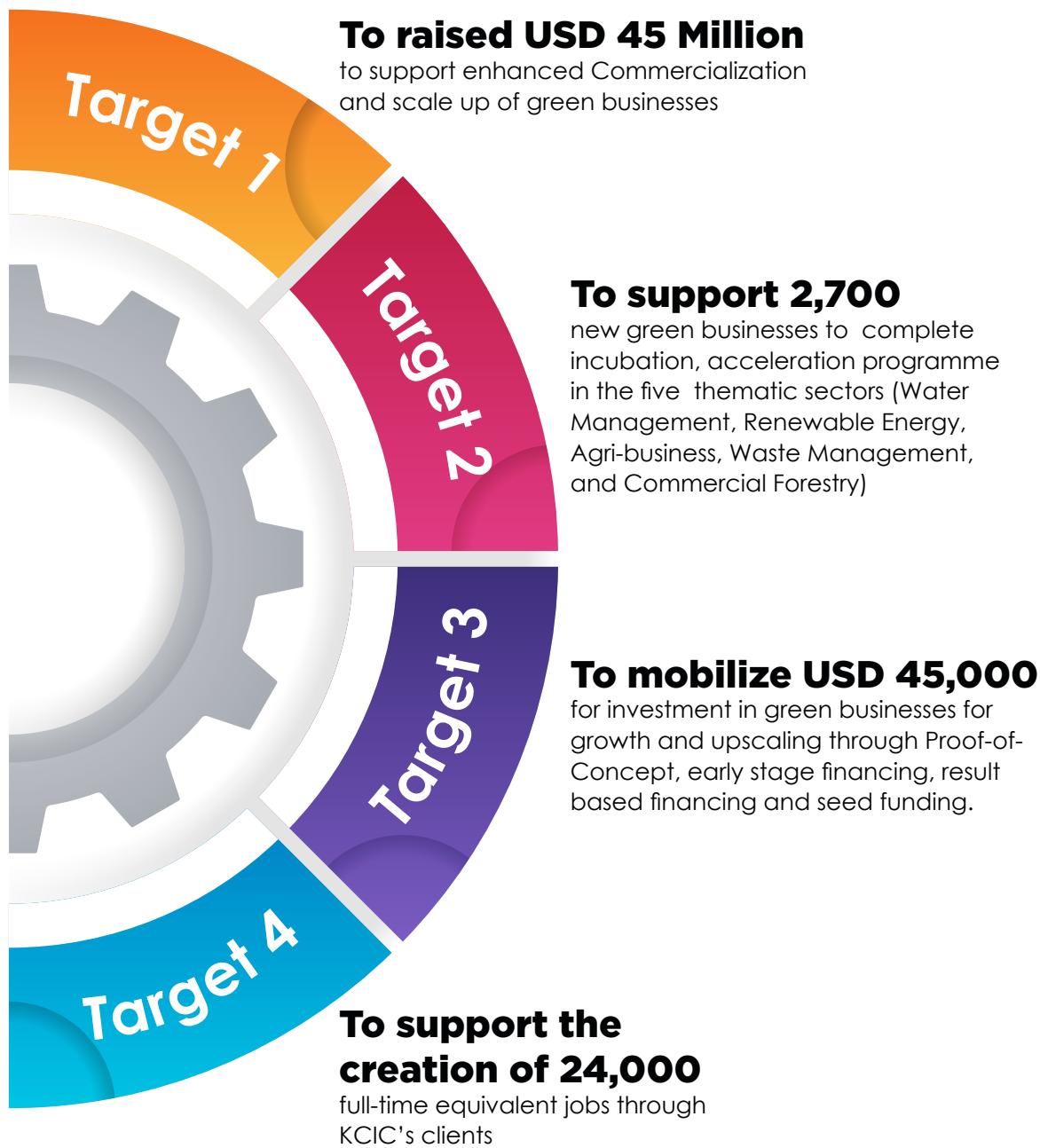
**Think Tank**



**“BE PART OF THE STORY”**



KCIC has set out an ambitious plan under our current Strategic Plan (2020 – 2025) to achieve the outcome of increased commercialization and scale-up of locally relevant climate technologies, with the following targets:



Based on KCIC's existing and future projects, we welcome the involvement and support of partners to help us actualize our continued impact within the clean-tech sector while contributing towards the global concerted efforts to combat climate change.

# PARTNERS



## Climate KIC

Collaborated to organize Climate Launch Pad competition in Kenya and the greater Africa. The competition has been extended to other African countries such as Nigeria, Tanzania and Cape Verde in addition to Kenya.



## Strathmore University

this is a working partnership that provides an internship programme for students, joint clean-tech events, partnership on sustainability initiatives, and sharing of Strathmore's Energy Research Center resources.



## Vision 2030 Delivery Secretariat

Vision 2030 Delivery Secretariat and KCIC signed a partnership agreement in February 2018. Under this partnership, KCIC will support the implementation of MTP III of Vision 2030 through promotion of green innovations. This will be done in collaboration with the Directorate of Climate Change at the Ministry of Environment.



## Autodesk Foundation

Autodesk Foundation has funded KCIC's Early Stage Financing Mechanism through a partnership signed in 2017. The foundation provided a grant worth \$ 100,000 to be used to pilot the new funding tool developed in the year.



IKEA Foundation

## IKEA Foundation

IKEA Foundation had funded KCIC through an agreement signed in 2019 to implement the bridging early-stage financing after the successful pilot funded by Autodesk Foundation. IKEA funded the project with a grant worth USD 1,090,000 in financial commitment.



## World University Services Canada (WUSC)

WUSC is building capacity for KCIC through the provision of expert volunteers in key areas such as gender and social inclusion, partnership and resource mobilization strategy development and enhancement of communication.



## Contacts

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*Danida*