



OUR STORY

www.kenyacic.org



Agri-business



Renewable
Energy



Water
Management



A total of **6,000** direct jobs are envisaged to be created through the KCIC supported enterprises.

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 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 2016-2020, is working towards incubating more than 225 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 **6,000** direct jobs are envisaged to be created through the KCIC supported enterprises.



Our Vision:

"To be the one stop shop supporting innovative climate change solutions in Kenya"



Our Mission:

"To provide incubation, financing and awareness that empowers the private sector to deliver innovative climate change solutions"

Thematic Areas

The KCIC's mission and goals is delivered through a range of services and programmes in three focus areas namely;



renewable energy



agribusiness



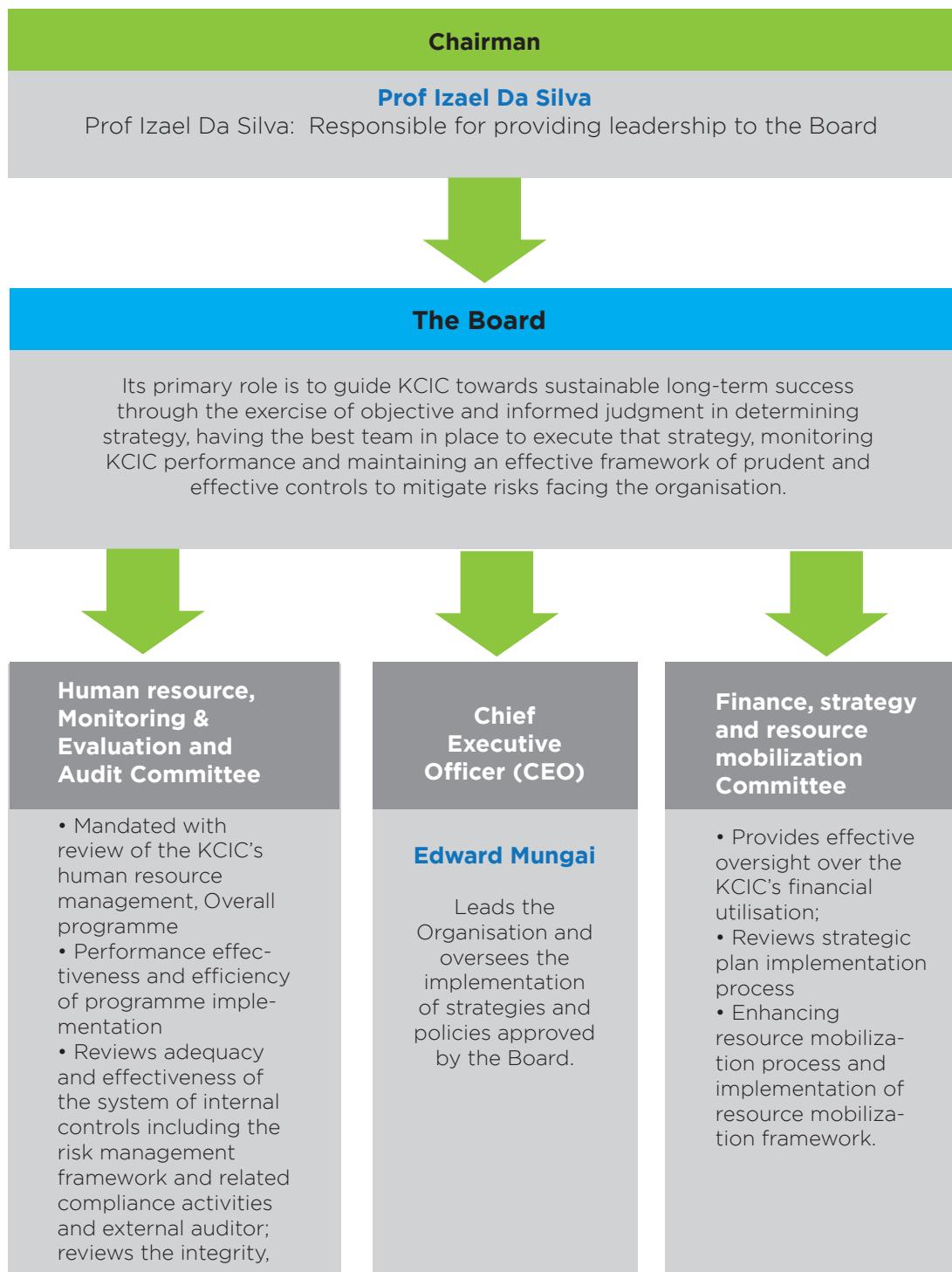
water management

SETUP AND GOVERNANCE



KCIC was successfully registered as a company limited by guarantee in January 2015 and received a new round of funding from DANIDA to support its activities for the period July 2016 to May 2021.

The company's governance structure is as shown:



SECTORS



KCIC's main areas of action are divided into three sectors: Agri-business, Water Management, and Renewable Energy.



Agri-business

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) and acceleration for high potential agribusiness innovations that seek to address climate challenges with emphasis on increasing food security.





Water Management

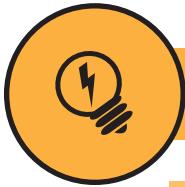
Background and Challenge

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.





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.

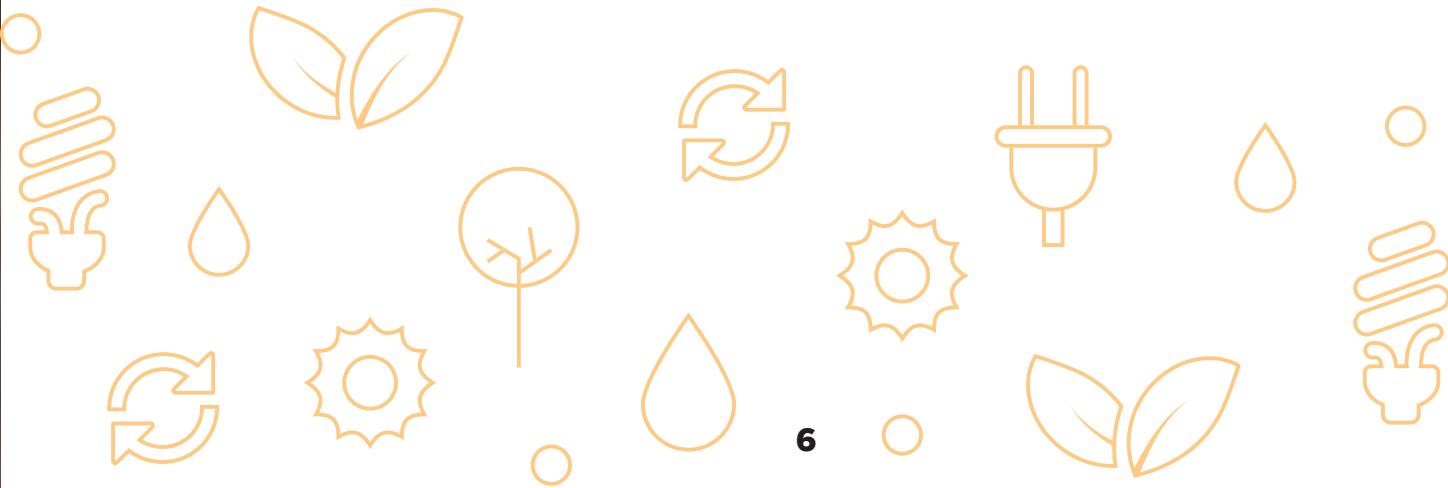
Kenya depends heavily on wood fuel and other biomass which account for 68 percent of the total energy consumption. Petroleum accounts for 22 percent while electricity accounts for 9 percent. Only 14 - 16% of Kenyan households are connected to the grid, which is a significant contributor to the energy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

Access to Facilities

- Providing enterprises with the use of office and technical facilities

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, matching grants, seed capital investments, syndicate financing, etc.

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

Client Testimonials:



“

“We have covered significant topics on branding, development of value proposition, contract negotiations, marketing among others. We are doing the group sessions in an arrangement that requires the 4 mentees host the sessions at their businesses or on site where they have made an installation. This has been a great way of learning and getting feedback from the mentors as well as the peers on very practical grounds. This also gives the team a chance to get real feedback from clients served.”

-Simon Wachieni - Managing Director, Maji Agri Solutions

”

“

“I have developed a marketing strategy that has seen growth of my revenues in the last 3 months. We are now looking for financing opportunities to invest in the growth of our production facilities. My mentor is supporting us to prepare proposals to various investors and we hope this will create a new dawn for our business”

-Lincoln Mbogo - Managing Director, Fullspoon

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KCIC Incubator Programme

**12
Months**

programme targeting start-up and early stage enterprises that have a prototype.

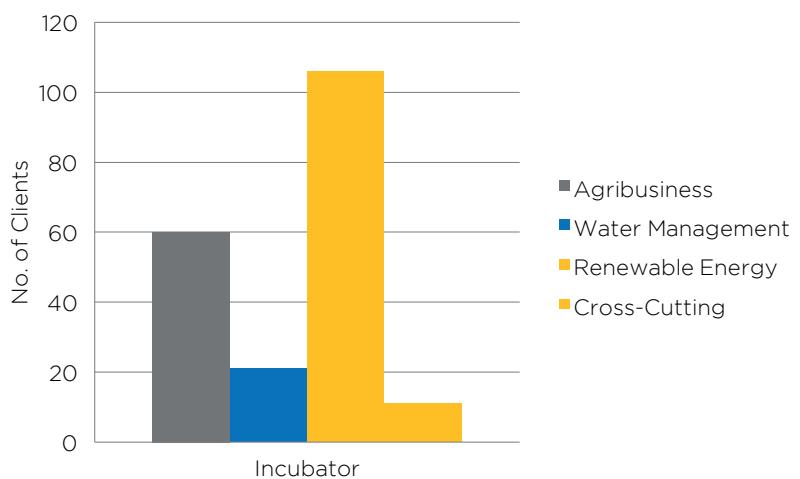
The aim of the Incubator programme is to enable the enterprises to:

Prove their concepts in the market

Refine the company's business model

Progress towards commercialization

KCIC Incubator Programme



KCIC Green Tech Accelerator Programme

**10
Months**

programme that supports businesses that have successfully completed the incubation programme.

The aim of the Accelerator programme is to:

Set the enterprises on a rapid growth plan

Prepare the enterprises for investment.

The key focus at this stage is on KPI-based measurable growth (customers, revenues, market traction, and market share).

The enterprises are also supported in increasing focus on hiring, improving quality, and implementing processes.



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; and



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



Climate Change and the SDGs



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.

Specifically, KCIC's programming responds to the following four SDGs:



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



No Hunger: By investing in agriculture KCIC is playing a crucial role to increasing the capacity for agricultural productivity and sustainable food production systems



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



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



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



KCIC is increasing climate change adaptation through its programs



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

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

The total revenues generated by KCIC clients currently amount to USD 15,442,000. 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

To date, KCIC clients have been able to attract investment worth USD 25,400,000. 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.

39
clients were supported to access external funds



JOBS CREATED

KCIC clients have created a total of 6,000 direct and indirect jobs since the inception of the organization.



56% of the jobs created represent women.



TONS OF CO₂ EQUIVALENT MITIGATED

Through the sale of different low carbon products to over 392,000 customers, KCIC clients have been able to mitigate 1,200,000 tCO₂e. The different range of products sold includes cook stoves, briquettes, solar products, biogas systems, biodiesel products, among others.



CASE STUDIES



Exotic EPZ Limited



an Early Stage Finance success story in Agribusiness

Exotic EPZ Ltd started operations in 2017 and occupies 17,000sq feet factory at Sameer Industrial Park, Nairobi, the company engages in the processing and export of macadamia nuts.

Exotic is owned by three women passionate about empowering rural smallholder farmers and agents in the macadamia nuts value chains, as well as creation of decent jobs. The company sources its raw materials from over 1,500 of small-scale farmers spread across Embu, Meru, Nyeri, Kirinyaga, Kiambu and Murang'a counties and exports its final products to the Netherlands.

One key challenge that the business was facing was financial constraints due to long working capital cycles, which resulted in an underutilization of their processing facility. In March 2018, Exotic EPZ Limited was awarded \$50,000 under the Early Stage Financing Mechanism (ESFM) which boosted the business' ability to procure optimal levels of raw materials. This allowed the company to ship 2 consignments of export products. The company currently has an annual order of 20 containers (300 tons of export product) that it is now confident of fulfilling since it has doubled its drying

capacity to 200 tons per month (30 tons of export product per month)

Since macadamia has two seasons in a year (Mar to July and Oct to Dec) the management is currently exploring the possibility of processing other products namely sesame oil which has an alternate season to macadamia. The company also ensures that there is zero-waste from its operations as it uses the shells extracted from the nuts to fire the boiler steam system used to dry the nuts. In this way the company reduces its cost of energy as well as its carbon emissions and environmental degradation. Waste from the sorting process is sold to animal feed manufacturers.

The impact:

- The company currently employs over 150 staff (both casual and fulltime) with over 80% being women.
- The company works closely with over 2,500 farmers from Meru, Embu, Kirinyaga, Baringo, Makueni, Nyeri, Taita Taveta and Nyanza regions.
- Exotic EPZ recently acquired the Food Safety System Certificate 22000 (FSSC 22000) which will enable them tap into the more lucrative US market.



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 CO₂ 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.



Hydroponics Africa



innovating farming systems in
East Africa

Hydroponics Africa Limited (HAL), formerly known as Mineral and Allied Limited has been in existence since 2013. It is the pioneer, initiator and leader of hydroponic farming systems in East Africa. The company enables farmers to achieve predictable and highly nutritious yields of vegetables, and to produce their own animal feed at limited cost. One key benefit for farmers in using the system is that they can remain unaffected by adverse weather conditions and changes in the rainy seasons since hydroponics entails the growing of crops using nutrient-laden water rather than soil for plant nourishment. This technology is particularly useful for populations living in arid regions, since it provides a sustainable means for growing food for consumption, as well as for sale.

The company received a Proof of Concept (PoC) grant of USD 69,768 to construct and operationalize a hydroponic demonstration farm in Mai Mahiu area and Meru County. The activities that were supported included:

The construction of a training facility
The establishment of 3 hydroponic units
(1 fodder unit, 2 vegetable units)
The training of 1,000 farmers

The provision of agronomic support to farmers by hiring 2 agronomy officers

The decentralization of distribution points for products supplied from the main demonstration farms by recruiting county agents as company representatives

The impact:

- HAL has installed over 3,600 hydroponic units for small-scale farmers (65% of them in arid areas)
- HAL is set to install 4,000 vertical units under the USAID funded Securing Water for Food program in Eastern Kenya for at least 3,500 households
- HAL recently received a grant of EUR 96,000 to pilot vertical hydroponics in Rwanda which was launched in January 2018

UPCOMING PROJECTS



1. SUSTAINABILITY INITIATIVES

Kenya Climate Innovation Center - Sustainability Initiative is designed to support companies and organizations

to realize specific targets outlined by the Sustainable Development Goals (SDGs) adopted globally in 2015.

KCIC's Sustainability Initiative is anchored on five pillars:



1. AWARENESS CREATION

Under awareness creation, KCIC is implementing two projects: WeSustain and Community of Practice

WESUSTAIN

WeSustain Africa is a youth-driven platform promoting Sustainable Development Goals (SDGs) agenda in Kenya, whose main objective is to promote creativity and innovation by encouraging African youth to improve their participation on global issues, therefore developing ideas that would benefit our local communities and the African continent.

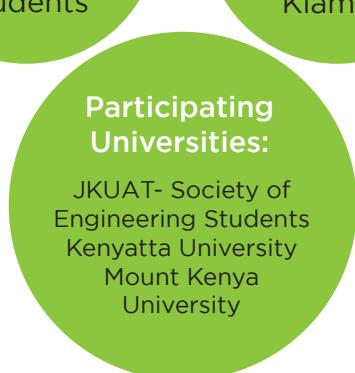
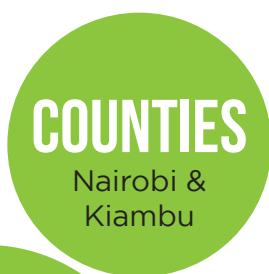
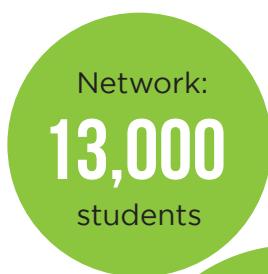


Photo Competition:

Targeting Kenya's youth with an aim of enhancing their proactivity in the SDG's. The photos featured poor waste management, flooding, poor drainage systems, nature, and other environmental issues affecting Kenya.

Africa Sustainability Matters Newsletter:

A weekly newsletter entailing a synopsis of feature articles upcoming events and latest sustainability news headlines. Current coverage consists of 35,000 subscribers spanning across local and international audiences from different fields, which is helping to promote the conversation on the sustainability agenda.

COMMUNITY OF PRACTICE

The Community of Practice Unit aims at facilitating dialogue and collaboration to find solutions to critical sustainability challenges. Under the COP unit, KCIC-SI intends to establish an Association of Sustainability Practitioners in Kenya (ASPK) which will be a natural meeting point for individuals and organizations interested in areas where business and sustainability intersect.

2. 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.

3. 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.

4. KCIC CONSULTING

Leveraging on our experience and expertise KCIC Consulting will be the commercial arm of Kenya Climate Innovation Center. KCIC consulting will take on special project and will offer a unique pool of expertise that gives a broader offering on each project we take on.



BE PART OF THE STORY



KCIC has set out an ambitious plan under our current Strategic Plan (2016 – 2021) 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

In 2017, Climate KIC and KCIC organized, in collaboration, the inaugural Climate Launch Pad competition in Kenya and the greater Africa. The competition this year was extended to other African countries such as Nigeria, Tanzania and Cape Verde in addition to Kenya. This year, KCIC has received a record 110 entry applications and 15 companies have been shortlisted to participate in the boot camp business training.



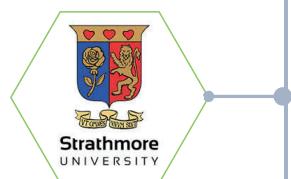
HIVOS

KCIC signed a partnership agreement with HIVOS in November 2017 valid for three years to collaborate on a number of activities. The partners are now working on Kenya biogas project and also joint development of funding proposals focused on climate change mitigation.



Strathmore University

KCIC has a working partnership Strathmore University for an internship programme for their students, organizing joint events within the cleantech space and partnership on sustainability initiatives that fall within the scope of both parties. In addition, Strathmore's Energy Research Center (SERC) provides support to KCIC's renewable energy clients.



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 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.



SNV

KCIC also has a partnership with SNV on specific projects. SNV has so far facilitated an investor readiness training for KCIC clients. SNV, HIVOS, and KCIC also collaborated in participation with the Sankalp Forum.



Kenya Commercial Bank Limited

KCB has sponsored the KCIC Sustainability Initiative with KSh. 1 million. The funds will be used to host a breakfast meeting where practitioners will discuss trends in sustainability and at the same time launch the Practitioners Association.





Contacts

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