Equator Initiative Case Studies
Local sustainable development solutions for people, nature, and resilient communities

KAYONZA GROWERS TEA FACTORY
Uganda

Empowered lives. Resilient nations.
Local and indigenous communities across the world are advancing innovative sustainable development solutions that work for people and for nature. Few publications or case studies tell the full story of how such initiatives evolve, the breadth of their impacts, or how they change over time. Fewer still have undertaken to tell these stories with community practitioners themselves guiding the narrative. The Equator Initiative aims to fill that gap.

The Equator Initiative, supported by generous funding from the Government of Norway, awarded the Equator Prize 2015 to 21 outstanding local community and indigenous peoples initiatives to reduce poverty, protect nature, and strengthen resilience in the face of climate change. Selected from 1,461 nominations from across 126 countries, the winners were recognized for their achievements at a prize ceremony held in conjunction with the United Nations Convention on Climate Change (COP21) in Paris. Special emphasis was placed on the protection, restoration, and sustainable management of forests; securing and protecting rights to communal lands, territories, and natural resources; community-based adaptation to climate change; and activism for environmental justice. The following case study is one in a growing series that describes vetted and peer-reviewed best practices intended to inspire the policy dialogue needed to take local success to scale, to improve the global knowledge base on local environment and development solutions, and to serve as models for replication.
PROJECT SUMMARY

Operating adjacent to Bwindi Impenetrable National Park, one of Uganda’s oldest rainforests and home to 50 percent of the world’s mountain gorillas, Kayonza Growers Tea Factory is a for-profit community enterprise, 100 percent owned by its 7,229 smallholder tea farmers. Facing deforestation, wetland encroachment, soil degradation, and water shortages, the initiative has worked to ensure that at least 70 percent of the population is involved in a landscape-scale, community-led climate change adaptation and mitigation strategy that addresses energy efficiency, food and income security, and natural resource management. Over 4,800 smallholders have benefited to date through the introduction of new staple or cash crops—including beans, banana, Irish potato, and ground nuts—and kitchen gardens. Across several ecosystems, more than 4,000 farmers have been trained in conserving wetlands, riverbanks, and natural forests. Over 20,000 indigenous trees have been planted on farm borders and degraded hillsides. The initiative is a model of smallholder-led adaptation to climate change, integrated ecosystem restoration, reforestation, and ecoagriculture.

KEY FACTS

Equator Prize Winner
2015

Founded
1964

Location
Kanungu District, in south-western Uganda, on the buffer zone of Bwindi Impenetrable National Park, which borders with the Democratic Republic of the Congo (DRC)

Beneficiaries
7,229 smallholder tea farmers and their families

Areas of focus
Sustainable agriculture and food security; community-based adaptation to climate change; community advocacy for environmental justice and climate change solutions; innovative partnerships with government or the private sector to promote sustainable development

Sustainable Development Goals addressed

The depiction and use of boundaries and related information shown on maps or included within in text of this document are not guaranteed to be free from error, nor do they imply official acceptance or recognition by the United Nations.
Established in 1963, Kayonza Growers Tea Factory is in the Kanungu District, south-western Uganda, 15 kilometres north of Bwindi Impenetrable National Park, on the eastern edge of the Albertine Rift Valley. A UNESCO World Heritage Site, the park is home to a 25,000-year-old rainforest that provides key habitat for an estimated 400 critically endangered mountain gorillas (Gorilla beringei beringei), approximately 50 percent of the world’s population.

This biologically diverse region provides shelter to other 120 mammals, such as baboons, chimpanzees, elephants, and antelopes. The forest is also the habitat of nearly 350 bird species, including 23 that are endemic to the Albertine Rift, and 400 species of plants. In addition, there are several important swamps, rivers, and streams in the area.

However, pressure on natural resources is severe, with high deforestation rates, wetland encroachment, soil degradation, and water shortages. Population density and poverty are also high. It is estimated that over 250,000 people live in the Kanungu District and the average number of children per woman is 6.5.

Most of the population, approximately 98 percent, are engaged in agriculture, making it the dominant economic activity and a significant driver for deforestation. The primary food crops cultivated in the area are beans, groundnuts, rice, cassava, potatoes, bananas, soya beans, millet and sorghum, as well as pineapples, tomatoes, onions and cabbages. Major cash crops in the region are tea, coffee and rice, with tea and coffee currently being the most widely produced. Human pressures on the environment have taken a toll on the area’s natural resources and exacerbated the effects of climate change.

To address these issues, the Kayonza Growers Tea Factory partnered with the CaféDirect Producers’ Foundation (CPF), known as Producers Direct, to engage the village of Kayonza in developing a community-led climate change and mitigation strategy. Together, they developed a plan to work with at least 70 percent of the village population, and focus on key actions related to energy efficiency, food and income security, and natural resource management.

Among many measures, the initiative reduced local fuel wood consumption across households and in the tea factory, established kitchen gardens to enhance household nutrition and incomes, improved access to clean water through the installation of rainwater harvesting and ‘gravity flow’ water systems, and created nurseries to reforest degraded land with native trees.

Combined, these benefits are enhancing community resilience and its ability to respond if their tea crop fails through extreme weather and/or pests. Farmers are also better supported with information services, through radio broadcasts on climate change issues and farmer trainers within the community.

Origin and structure

Tea as a cash crop was introduced in Uganda over 100 years ago in 1901. But in Kayonza, where the factory is located, the plant was not grown until 1958. Tea growing in Kayonza was started by the Uganda Development Corporation in 1959 and field planting was done in 1961.

The Tea Factory was established in 1964 under the auspices of Agricultural Enterprises Limited, an entity which was founded to promote tea as an alternative to other crops cultivated by smallholder farmers. In 1966, Uganda Tea Growers Corporation (UTGC), a parastatal body, took up the management of the Kayonza factory.

From 1974 to 1985, tea growing was abandoned due to the political turmoil the country experienced then. Between 1986 and 1990, there was an emergence of the Tea Rehabilitation Programme that subsequently received support from the European Union for five years
(1990-1995) to revamp the tea sub-sector, courtesy of the Smallholder Tea Development Programme. This was swiftly followed in 1995 by the government’s privatization programme, which allowed farmers to subscribe and own shares. This successful process was completed in 2000 and now 7,229 smallholder farmers own Kayonza Growers Tea Factory Ltd., which exports 80 percent of its production.

This for-profit factory is governed by a Board of Directors elected by the shareholders at the Annual General Assembly, which is the supreme body of the organization. The Board of Directors has seven members, in charge of making policies and strategic decisions. There is also a General Manager and seven departments: Accounting and Finance; Field Extension; Human Resources; Maintenance; Production; Brand Unit; and Auditing.

The factory employs 630 workers and its mission is to provide effective and efficient support services to tea farmers and produce tea that meets customer quality requirements in a sustainable manner.

Kayonza Growers Tea Factory Ltd. has obtained ISO 14001 certification, managing to reduce energy and water consumption and material wastes. This has translated into a saving of US$ 114,285 per year. It is also Fair Trade Certified since 1998 and has been getting premiums from the sale of teas. This premium is used to implement the following corporate social responsibility projects with a total investment of US$800,000:

■ 56 classroom blocks and 20 offices in 20 schools
■ 2 dormitories for girls in 2 secondary schools
■ 3 outpatient blocks and 1 maternity ward for the workers and health unit
■ Paying school fees for 42 double orphans.
■ 1,950 bags of fertilizer were given to tea farmers
■ 8 units of employee accommodation and an office block
■ 7 pit latrines and other assorted items donated to schools

More recently, in November 2018 Kayonza Growers Tea Factory Ltd. passed an external audit to obtain the Rainforest Alliance Certification. The audit was largely focused on biodiversity and fragile ecosystem conservation and protection of natural resources. As part of the requirements for this certification, the factory supported 200 farmers with Personal Protective Equipment (PPE) for handling agricultural chemicals.
LOCAL CHALLENGES

Human pressure

Kayonza is located in one of Uganda’s most biodiverse ecosystems. Significant pressures on wildlife and other natural resources have been driven by growing rural populations, dependent on farming for their livelihoods. The main causes of deforestation with the landscape are the high wood consumption by households and the tea factory, the conversion of forest land to agriculture, and the low productivity of existing farms which intensifies forest conversion.

Climate change

Climate change has also affected Kayonza villagers. One of the most evident effects is unreliable, unusual and erratic rainfall, with rains in January instead of March that are sometimes very destructive, with the occurrence of heavy storms. According to baseline surveys done in 2011, it was established that at least two people die of lightening every month.

The disturbance of rainfall patterns also engenders prolonged droughts and increased temperatures. Over 50 water springs have dried up in the last 15 years, affecting water availability for households.

Other impacts of climate change include: increase in pests and diseases; soil exhaustion; landslides; lack of pasture for animals; famine; loss of household incomes; firewood shortage; water stress reduced photosynthesis; increased soil erosion; loss of local biodiversity; increased production costs; crop failure/poor yields for all crops including tea; and low standard of living.
Climate change mitigation and adaptation strategy

Kayonza's work has taken an inclusive approach to addressing the broad range of issues required for their communities to adapt to climate-related stresses, as well as tackle local drivers of climate change within a landscape where livelihoods, agriculture and biodiversity conservation are all high priorities. The first step in strategy development was extensive consultations with farmers to identify climate change related challenges they were facing, and potential actions to address these. Then, working in partnership with the Cafédirect Producers’ Foundation and the International Centre for Tropical Agriculture, in 2010 Kayonza reviewed existing climate change data and models that predicted the suitability of different crops for cash and staple foods in the region under various long-term climate change scenarios – principally as a tool to support discussion, and raise awareness amongst farmers of the need to plan for the longer-term impacts of climate change.

Activities undertaken have enhanced both the resilience of farmers’ livelihoods, and landscape’s natural resources base by working at both the farm- and the landscape-level, and undertaking activities across the themes of energy efficiency, income and food security, and natural resources conservation. Local radio broadcasts of ten thirty-minute programmes on energy saving and tree planting reached approximately 5,000 farmers, helping to further raise awareness.

For Kayonza's climate change strategy, farmers took leadership from the onset. The strategy was based on a process that was undertaken across Kayonza's farmer members, who mapped out the challenges they were facing, the extent to which these were related to changing climatic conditions and identified their own ideas and solutions for tackling these challenges. These ideas were then developed into an action plan. Activities were implemented through a farmer-led training model. In 2011, farmers and other community leaders were nominated to be trained as trainers and have responsibility for organizing and running workshops and other implementation activities with their peers.

That same year, a Climate Change Risks and Opportunity Analysis (ROA) was conducted and farmers participated in a three-day workshop in which they realized that climate change was real and that something needed to be done. The climate change mitigation and adaptation strategy was generated by Kayonza farmers based on four main themes: (1) food security; (2) nature conservation; (3) family planning; and (4) pests and disease control.

Activities included restoring species diversity within the landscape; re-balancing indigenous versus exotic crop and tree species; landscape-wide efforts to re-plant indigenous tree species on farms and on surrounding hillsides; working in several ecosystems within the catchment area to restore dried up wetlands and water courses; training community members as environmental scouts to identify and remove exotic, water-demanding eucalyptus trees from river banks to restore water flow; and supporting farmers to financially benefit from the re-introduction of indigenous trees and food crop species onto their farms through sales to local markets.

Typically, the recognition and empowerment of women as leaders within the region is a significant challenge. However, Kayonza has encouraged a relatively high proportion of female shareholders (32 percent) and has emphasized that at least one in every three farmers trained as trainers should be women leaders. Activities traditionally undertaken by women were identified as central to Kayonza's climate change strategy. For example, encouraging women-owned micro-enterprises to establish and manage indigenous tree nurseries.

The initiative faced several challenges, some of which persist. For example, at first there was little coordination with the government in areas of advocacy and enforcement.
of conservation policies. No one was responsible for climate change risks and vulnerabilities until Kayonza championed this campaign. Some people claimed to own some protected areas, especially swamps and demanded compensation, which Kayonza couldn’t pay. Climate change effects still manifest in the region, such as hailstorm damage, wind, floods, crop pests and diseases. There is a lack of sufficient resources to fully implement the climate change adaptation and mitigation strategy. This results in prioritization depending on available resources.

**KEY IMPACTS**

**Climate change adaptation and mitigation strategy**

- Farmers in Kayonza are encouraged to plant indigenous trees to conserve the environment. Tea growing is done to stop animals from destroying crops.
- Farmers are given rain water tanks to practice rain water harvesting in water stressed areas. Thirty families have benefited from rain water tanks.
- Kayonza started a mother garden for banana. These are resistant varieties provided by the National Agriculture Research Organization (NARO).
- A farmer-friendly training aid kit, provided by the United Nations Fund for Population Activities (UNFPA), was used during sensitization on family planning.
- Most families today have firewood for use and have stopped encroaching on protected areas for firewood especially those near the National park.
- Over 120,000 seedlings of hedge trees have been planted by farmers.
- 245 farmers have embraced family planning methods.
- 184 factory workers have embraced family planning.
- 523 farmers have benefited from energy saving stoves.
- Maps have been drawn and areas of high-value ecosystems located.
- 12 environmental scouts were recruited as volunteers to whistle blow any encroachment on protected areas.
National policy impacts

The activities carried out by Kayonza Growers Tea Factory Ltd. in climate change have attracted other partners like Fair Trade and Vi-Agroforestry who among many things helped Kayonza to come up with a gender policy. The policy advocates for a position of a female director as a must and promotes equal employment for men and women. Through the involvement of the Uganda Tea Development Agency in marketing efforts at national and international levels, the concerns of Kayonza Growers Tea Factory are represented in national policy debates around tea.

Contributions to the global agenda

The Kayonza Growers Tea Factory climate change adaptation and mitigation strategy contributes to several Sustainable Development Goals, such as no poverty (SDG 1), zero hunger (SDG 2), gender equality (SDG 5), affordable and clean energy (SDG 7), decent work and economic growth (SDG 8), responsible consumption and production (SDG 12), climate action (SDG 13), and life on land (SDG 15).
Replicability

Kayonza’s climate change work provides a strong example of local leadership to mobilize smallholder farmers as key actors in climate change adaptation and mitigation initiatives. The company’s achievements have been widely recognized in Uganda and internationally, leading them to engage with diverse actors including national- and district-level government agencies, national research organisations, and national and international NGOs seeking to support community-led processes.

Awareness of the significant challenges posed by climate change to smallholder agriculture within Uganda, and the tea sector across East Africa has also been raised, through coverage during radio broadcasts, and press releases picked up in media across Uganda and Kenya – all of which emphasize Kayonza’s approach as a strong case study that other stakeholders could learn from and adopt.

Scalability

The implementation of Kayonza’s strategy required the engagement of multiple stakeholders, many of whom have significant influence over Uganda’s national policies on forestry, agriculture, and social issues. Strong alliances have been established with district- and national-level public agencies, particularly to share technical knowledge and raise awareness of locally driven climate change adaptation strategies.

In Uganda and throughout East Africa, tea is an important crop – for livelihoods of the rural poor and for national economies. In Kenya alone, over 3 million rural livelihoods depend on tea. Thus, Kayonza’s work has received significant attention as an example that demonstrate opportunities for developing an approach that jointly improves incomes of the rural poor; tackles key environmental issues in biologically-rich ecosystems and takes a forward-looking approach to climate change adaptation. Kayonza has also demonstrated that this approach to climate change adaptation and mitigation can be a ‘business case’ for smallholders who have seen tangible, short-term income benefits, as well as to the organisation overall, through cost savings associated with improved energy efficiency and enhanced volumes of tea being produced by their members.

Sustainability

Kayonza Growers tea factory has been in operation since 1964 and has been reliably profitable. Its existence for over half a century is a testament of financial self-reliance and business acumen. The co-operative structure has woven the business into the fabric of the community and livelihoods depend on the factory’s success. As a result, the community is invested in the sustainability of Kayonza’s business case. Production factors including tea leaf and labour are locally sourced from the community, which are both available and expanding.

Kayonza tea is sold at the Mombasa tea auction, which has a buyer representation of over fifty countries and all but guarantees that the tea is sold, albeit at variable prices. With buyers from all tastes and regions, Kayonza is well-placed to ensure regular trading volumes.

Kayonza’s various activities in the area around conservation, capacity-building, and adaptation to climate change have been supported by own resources and a wide variety of partners and grants, benefiting the community and the protection of the mountain gorillas.
in Bwindi Impenetrable National Park. Impacts include food security, livelihoods, water conservation, wildlife and forest conservation. The tea factory management has shown the ability to engage with a range of partners. This contributes to the sustainability of these activities, as Kayonza is not dependent on a single donor or partner for their implementation.

**FUTURE PLANS**

- Construction of Mpungu Satellite Tea Factory, estimated to serve 46 percent of current farmers.
- Strengthening of a solar project at the factory with the aim of powering the entire processing line.
- Enhancement of tea leaf farmers’ payments as the result of savings made on powering of the entire plant using solar energy.
- Continued funding of the Centre of Excellence Budget Line, with emphasis on activities relating to climate change adaptation and mitigation.

**PARTNERS**

- **Cafédirect Producers’ Foundation (CPF), currently known as Producers Direct**: Financed the implementation of the Kayonza climate change adaptation and mitigation strategy.
- **Fair-trade International and Fair-trade Africa**: Supplemented climate change activities during the “AdapTea” project.
- **Government of Uganda**: Supported sensitization, family planning, and sustainable farming. The Government has trained personnel in all fields. Kayonza has been engaging them for consultancy and doing the actual work in the field.
- **National Agricultural Advisory Services (NAADs) and National Agricultural Research Organisation (NARO)**: Supported sourcing of new and locally appropriate seed varieties, as well as on access for research data.
- **National Forest Authority**: Supported the establishment of seedling nurseries and forest conservation strategies.
- **Oxfam Belgium**: Supported Kayonza for the installation of internet services, constructing gravity water used in the factory, weighing scales used for buying green leaf from farmers and saving energy inside the factory.
- **Ugandan Wildlife Authority and National Environmental Management Agency (NEMA)**: Support for education and awareness raising on environmental issues.
- **United Nations Fund for Population Activities (UNFPA)**: District-level activities on family planning guidance.
**SOURCES AND FURTHER RESOURCES**

International Centre for Tropical Agriculture, Official website. Available online [here](#).


Producers Direct, Official website. Available online [here](#).


United Nations Educational, Scientific and Cultural Organization (UNESCO), Bwindi Impenetrable National Park. Available online [here](#).

United Nations Fund for Population Activities (UNFPA), Official website. Available online [here](#).
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