

## Perennial crop farming and food security in Kigezi: a case study of Kigezi highland tea

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### ABSTRACT

This study critically examines the contribution of tea growing in Kigezi region and how it affects the growth of other crops that are meant for food consumption. It underscores the performance of tea as a cash crop and as a means of generating foreign exchange for the country as well as a source of employment. This study establishes that the tea sector has not in any way affected food security in the region of Kigezi and has instead improved household incomes, been a source of employment and boosted revenue for households. The sector has however registered some challenges like limited faith among the out growers who prefer their own traditional crops. There have also been challenges of lack of coordination from stake-holders like NEMA, the district local governments and government ministries, departments and agencies. The study recommends to government that policy makers design a comprehensive tea policy that streamlines conflicting agencies and also learn best practices from neighboring countries like Kenya where the sector has performed immensely well. Farmers also need constant sensitization on the benefits of the cash crop.

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### Performance of the Tea Sector in Uganda

The agricultural sector is the most dominant in Uganda's economy. Whilst this sector grew at an annual average of only 3.7 per cent over 1990-99 compared to the far more impressive growth of the industrial and service sectors, the importance of agriculture in Uganda's economy outweighs all other sectors put together. According to UTDA (2019:1) the agricultural sector employs 82 per cent of the workforce, accounts for 90 per cent of export earnings, and provided 44 per cent of GDP by 2010.

Tea-growing areas in Uganda include: Mukono, Mubende, Mityana and Wakiso in the central region, the lower slopes of the Rwenzori Mountains and Kabalore district, and then Kisoro, Rukungiri, Kanungu and Bushenyi in the Western Rift Valley. Kigezi Highland Tea is a commercial enterprise that has been engaged in the promotion of tea growing the districts of Kisoro, Kanungu and Rukungiri. It has signed memoranda of understanding with government agencies and several land owners, the church, local governments in regard to establishing nurseries, opening up farms and mobilizing local farmers to embrace tea growing in Kigezi region.

The farmers in Uganda are scattered on small farms in some parts of the country and expansive ones in other parts and they provide the majority of their own and the rest of the country's staple food requirements. Uganda is able to rely on agriculture due to the country's excellent access to fertile soils, and, (relative to many other African nations) its regular rainfall, although it does still suffer from intermittent droughts. Uganda's key agricultural products can be divided into cash crops, food crops, and horticultural produce. The most important cash crops are coffee, tea, cotton, tobacco, and cocoa. More so, the (UTDA, 2019:1) alludes to the effect that Uganda is second only to Kenya as Africa's largest producer of tea, exporting US\$17.06 million of tea in 1996 and \$39 million by 2010. The primary food crops, mainly for domestic consumption, include plantains, cassava, maize, millet, and sorghum.

Uganda is known to have a favorable climate for tea growing. The Tea plant that was introduced in the country by 1900 had by mid-1950s become Uganda's main estate crop. According to Ssebuliba (2018:2), Uganda has only exploited about 10% of its potential for tea growing and has about 21,000 hectares of land under tea growing.

Shively (2012:3) opines that Uganda produces about 10,000 metric tons of tea per annum and about 90% of tea is exported. The world tea production is about 3 billion kilograms and East African countries of Kenya, Uganda and Tanzania contribute about 11%. The largest producer is India with about 28% of the world's production and the largest Tea exporter is China with about 17% of the world's total exports. Tea is a cash crop for small farmers and it improves people's social economic conditions. It creates employment for a number of people and, being an important export product, is a foreign exchange earner.

Because of the importance of the sector, the government through Uganda Tea Growers Corporation (UTGC) has extended support to the tea sector with particular emphasis to the small-scale tea farmers. The smallholder tea farmer-based sub-sector has been proven to be quite viable, resilient and adaptable. UTGC extends the following support to the farmers: it assists farmers to access credit and other key farm inputs; it encourages farmers to grow varieties of high quality tea, provides extension service to smallholder tea farmers, trains the farmers, establishes nurseries, operates tea factories and constructs / maintains feeder roads.

### **The Rationale of the Study on Tea Growing and other Food Crops**

Kigezi sub-region is one of the most densely populated areas in Uganda. The traditional districts of Kabale, Kisoro and Rukungiri and Kanungu have had shortage of arable land due to population growth rates that have put great pressure on the land evidenced by: the annual population growth rate in Kisoro district was calculated at 1.5 per cent in 2012 and the population was estimated at 254,300. In Kabale, the national census in 2012 estimated the population at 458,300. In 2012 and the population was estimated at 498,300. In Kanungu, the annual population growth rate for the district was calculated at 2.1 per cent (UBOS, 2012), and it was estimated that the population in 2012 was 252,100. The introduction of perennial crops therefore poses a risk to food security to the inhabitants of the region because subsistence agriculture will be greatly affected. This is coupled with the problem of refugees from the Democratic Republic of Congo and Rwanda; the intense land fragmentation will lead to hunger.

In the recent past, food prices have shot up and the potential to put some reserves to market has grossly waned. Agrarian land in Kigezi has been adversely encroached on. For example, in 2018, a kilo beans was

at UGX 1200 but as of 2021 it had shot up to UGX 2000. After close to a decade of Kigezi Highland Tea company operations, farmers do not realise the value for money and yet they would be substitutes on the land that was relegated in favour of tea. Besides the social-economic challenges associated with tea growing in the region, the tea plantations are very wanting in terms of yields and the “leaf-life” looks pathetic. Also, as a likely result of poor soil texture for the said crop, the plant life of the tea plantations is far from good. This is therefore an investigation on the projections, the benefits (if any) in respect to Kigezi Highland Tea, the locals and the government. Indeed, it is an extrapolation into the advantages and disadvantages that have accrued as a result of implementing this project (farms and factories) and the shift from the traditional agrarian forms of farming in Kigezi region.

### **Research Methodology of the Study**

The study used a case study design. This is because of the many advantages it offers (Kothari, 2004). The use of a case study method is based on the fact that the researchers looked at selected tea farms in Kisoro, Kabale and Kanungu, especially those which accessed funding by Kigezi High Land Tea. Also, the workers of the management of KHT in the mentioned district. Since it would not be possible to exhaustively study all of them, only a few were selected. In this regard, a case study approach was useful in enabling the researchers to understand the significance of the project at hand and focusing on farmers and other stakeholders under Kigezi Highland Tea.

### **Population and Sample Size**

The study population comprised a total of 20 famers from Kisoro, 20 from Kabale and another 20 from Kanungu in different sub counties who were purposively selected in each District, Another category of those that were interviewed were 10 administrators from the headquarters of KHT who were randomly selected and were assumed to have information on tea farming. Also selected were the government officers at the districts: 01 District production officer from each District), 01 Community Development officer per each District and 02 Sub-county Chiefs in each District, 02 Agricultural Officers in each District 01 Sub-county (LCIII) Chairperson per District. The total study population was 91.

### **Data Collection Methods and Instruments**

#### **Primary Collection Methods**

Questionnaires are printed sets of questions to be answered by respondents, either through face-to-face interviews or to be completed by individuals on their own, as a tested, structured, clearly presented and systematic means of collecting data (Payne & Payne, 2004:186). The researchers administered questionnaires directly to the respondents so as to avoid delays in receiving them, and to increase the response rate. Here, everyone in the sample was systematically asked the same questions, in the same order in each interview and by the same interviewer. Respondents were given adequate time to give well-thought-out answers. Large samples were made use of and thus the results are more dependable and reliable.

The questionnaire was designed under the following themes: household characteristic, land access and usage, the types of crops growing, food security indicators and poverty reduction measures.

## Secondary Data Collection Methods

### Documentary Evidence / Records

According to Payne and Payne (2004:60), documentary methods are the techniques used to categorize, investigate, interpret and identify the limitations of physical sources, most commonly written documents, whether in the private or public domain (personal papers, commercial records, or state archives, communications or legislation). Documents / records are often particularly useful for tracking change over time; some of the documents / records that were consulted included literature from Uganda Bureau of Statistics, the Ministry of Agriculture, the Uganda Tea Development Agency and relevant documents at Kigezi Highland Tea.

### Data Management and Processing

#### Data Analysis

The data collected using questionnaires was analyzed using SPSS. The data was analyzed and coded and it involved running frequencies and corresponding percentages for all the studied categorical variables which include background characteristics (sex, age, and location of youth groups) of respondents / study groups. The results were presented in tabular form. The chi-square test was used at this level to examine the relationship between each independent and dependent variable. Chi-square is a statistical method that tests for the existence of a relationship between two variables.

#### Significance of the Study

The study will act as a tool for policy formulation in subsequent government decision making processes. The study can avert a potential hunger spell that may affect Kigezi sub region in the near future. The study is spot on and can also ameliorate problems related to rural urban migration that have dogged Uganda in the recent past.

The study significantly adds on the existing body of knowledge in relation to the agricultural sector particularly and the food security aspect in general.

If put to good use, the study findings are facets that can eliminate the imminent social economic pitfall that can emerge as a result of implementing perennial agriculture in the Kigezi sub region. The study is of great significance and it contributes to the core values of the University in promoting research and acting as a beacon of knowledge. Indeed, it fulfils the University's research strategic plan.

The study is an addition and a contribution to the grand international pre-requisites of academic institutions. It will be material vital for the construction of a research pool of the national policy and agenda for the National Council of Science and Technology and will fulfil some of the aspirations of the vision and mission of Kabale University. Indeed, the study will come in handy as a contribution to the National Vision 2050 and the agenda of the National Planning Authority (NPA).

## Conceptual Framework

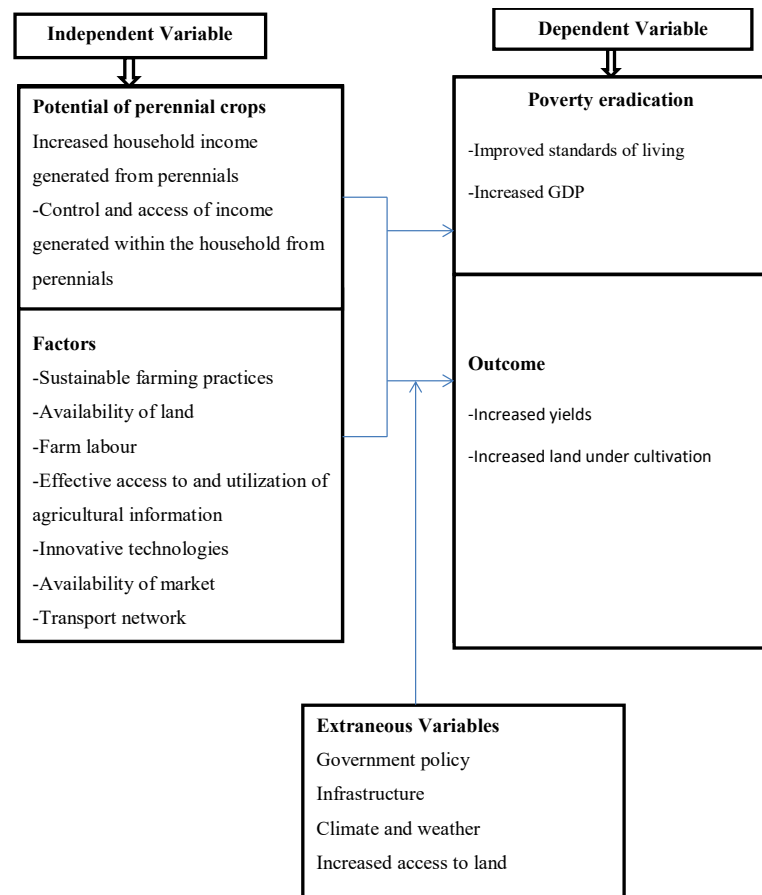


Figure 1.1: Summary of the Conceptual Framework

## An Overview of Tea in and outside Uganda

Perennial cereals, legumes and oil species represent a paradigm shift in agriculture and hold great potential to move towards sustainable production systems. Today, most agronomic practices used to grow annual crops require excessive water consumption, significant amounts of synthetic mineral fertilizers, labour, emissions of CO<sub>2</sub> and disrupt natural biological processes. Perennial crops instead are more rustic, improve soil structure and water retention capacity and contribute to increase climate change adaptation and mitigation practices and promote biodiversity and ecosystem functions. Although in some ways perennial crops are at the forefront of scientific research with new varieties being developed, they also represent a thinking that goes back thousands of years when many cropping systems were based on perennial species including fruit trees, alfalfa, perennial rice, rye, and olive trees.

In addition to modern breeding techniques, many wild and poorly domesticated species and varieties are available for research and interbreeding and hold potential to contribute to modern sustainable production systems. Through the development and breeding of these wild and semi-domesticated perennial varieties with commercially important and high-yielding crops, we will be able to achieve the best of both worlds.

While we can see the benefits, many see problems, at least initially. The genetic challenges in wide crosses are complex, with reports of low seed set in amphipods capable of re-growth after harvest (Cox *et al.*, 2002). Consequently, some have dismissed prospects for the development of perennial crops as just too difficult.

Developed countries have expressed several concerns about potential threats to their established annual crops from perennial relatives. Given that perennial species often have robust rhizomes, concern has been expressed that perennial crops may possess potential to become serious weeds, via hard-to-kill rhizomes. Many have been concerned with the possibility of the perennial providing a “green bridge” for disease, via the availability of living tissue able to propagate additional generations of disease, thereby increasing inoculum availability early in the season, encouraging earlier infection and increased risk of epidemics. These extra cycles of disease could enhance probabilities for mutations to bypass current plant resistance, thereby reducing the longevity of resistant cultivars.

Finally, wide crosses are likely to result in shattering, small grains and reduced grain quality, necessitating separation of perennial grains from others, perhaps consigning them to feed grain only. A different set of concerns may apply in developing countries, where the priority is food security, especially the availability of sufficient food for the family. The Consultative Group for International Agricultural Research (CGIAR) sees a need to prioritize increase in yield potential and closing the yield gap in high-yielding annual crops, especially under irrigation, to meet projected food demand. They discourage investment in perennial crops, as this may dilute yield gains. Such an analysis only considers grain supply, however, and not ecosystem services, such as minimizing soil erosion, maintaining soil fertility, and providing diversified and stabilized systems contributing livestock as well for balanced nutrition.

Another issue is a perceived trade-off with perennial crops (Connor *et al.*, 2011), which have to invest in perennial structures, at the expense of potentially directing that investment to further genetics and breeding; state-of-the-art gaps and opportunities. Perennial crops for food security Proceedings of the FAO expert workshop grain yield in the annual crop (see Cattani *et al.* 2014, this volume). Nevertheless, the additional investment in the perennial crop could result in increased acquisition of resources, which could compensate for their redeployment to perennial structures, or even result in yield gains overall (Glover, 2010; Glover *et al.*, 2010a, b). There is a dearth of hard data on these issues, however, and it is essential that the perennial crops community address this. There is also a wider imperative for developing perennial crops, in order not to cater only to those living and farming in productive irrigated areas.

The green revolution neglected those remote from favorable ecosystems, and such input-dependent solutions had many pest and ecological concerns. Impact is needed in all farming systems, including the oft-neglected mixed farming systems in the diversified remote uplands of Asia, Africa and Latin America. What can be done to address and change those perceptions? We need to show what these materials can do: ground cover, re-growth, floret fertility, forage dry matter (DM), resource capture, soil health, grain yield, disease, quality, biodiversity, ecosystem benefits, runoff, percolation, leaching. To do this well, we need to use a systems approach, and explore where the perennial crops would fit into the current and future farming systems. Would the perennial displace the annual crop, or more likely, would it be preferentially suited to particular soils or situations, thereby contributing to the diversification and stability of the whole farming system and landscape. What is the plant requirement? What traits should they possess? What materials are available, and what are they capable of at this stage of development? How do we go about improving them? What are the next steps? Where are we up to in developing perennial crops?



Global population and demand for food are increasing, while arable land is limited and faces increasing risk of degradation. To ensure food and ecosystem security, the development of perennial crops could provide more options under diverse and generally more marginal conditions (Glover *et al.*, 2010a, b). Perennial crops should offer more stable surface cover against soil erosion, and improved nutrient balance against soil acidification, rising water tables and salinity, thereby improving ecosystem services. Systems which include perennial crops should also offer farmers greater flexibility and diversity of enterprise, including livestock, and greater stability of income. At different scales, the result should be improved farmer livelihood, improved ecosystem services, and improved food security (see Snapp *et al.*, 2014; Runck, 2014; Van den Putten, 2014; Reganold, 2014; Leakey, 2014).

### **Perennial Crops: Needs, Perceptions and Essentials**

What are the challenges and opportunities they provide? To be successful, perennial crops would need to be able to regrow after normal harvest, and able to retain floret fertility and set grain, despite wide hybridization with perennial species. The progeny would require selection for agronomic type, including plant height, flowering time, seed size, and non-shattering. Appropriate resistances would be important against disease, submergence, drought and soil constraints, depending on the characteristics of the target environment.

Finally, the successful perennial crop would need to be compatible with its farming system (see Hayes *et al.*, 2014; Bell, 2014; Dost, 2014). How do perceptions differ on the priority to develop perennial grains? While we can see the benefits, many see problems, at least initially. The genetic challenges in wide crosses are complex, with reports of low seed set in amphiploids capable of re-growth after harvest (Cox *et al.*, 2002). Consequently, some have dismissed prospects for the development of perennial crops as just too difficult. Developed countries have expressed several concerns about potential threats to their established annual crops from perennial relatives. Given perennial species often have robust rhizomes, concern has been expressed that perennial crops may possess potential to become serious weeds, via hard-to-kill rhizomes. Many have been concerned with the possibility of the perennial providing a “green bridge” for disease, via the availability of living tissue able to propagate additional generations of disease, thereby increasing inoculum availability early in the season, encouraging earlier infection and increased risk of epidemics. These extra cycles of disease could enhance probabilities for mutations to bypass current plant resistance, thereby reducing the longevity of resistant cultivars.

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Worldwide networks of scientists and participatory approaches that fully engage farmers' platforms and priorities in these diverse contexts will be fundamental in successfully developing novel farming systems and perennial agriculture. Make research results available to the public. Good research in support of perennials exists but is not currently reaching policy makers, the public or the farming media. There is a need to implement a systematic analysis to screen the highest potential crops, farming systems, regions and socio-economic contexts in order to achieve short-term goals and early successes for maximum return on investment.

### **Centers for Perennial Grain Research.**

Scientists and investors agree that an invaluable mechanism to advance perennial grains research would be to establish a Centre for Perennial Grain Research. Such a center would provide dedicated space for operationalizing principles and on-the-ground research on perennial grains. The center could be attached to a university, CGIAR center, or government agency that would serve a wider audience, allowing global collaboration for the integration and application to diverse farming systems and agro-ecosystems.

### **Intercropping legumes with cereals**

More than 10,000 farmers in Africa are now testing and growing different combinations of improved pigeon pea germplasm and integrated crop, soil and residue management with improvements seen in villages with respect to yield stability and child nutrition.

Agroforestry can offer food, fodder, nutrients fuel and fibre. Examples are Faidherbiaalbida systems, where crops grown underneath the trees benefit from nitrogen and yields reported are improved by as much as three to tenfold.

Next Steps: Getting perennial crops on the ground: Integrate perennials into existing systems and dialogues. It is imperative that perenniality is integrated within agriculture and natural systems in diverse environments. The concepts and benefits of perennial landscapes and perennial agriculture need to be brought more strongly into the local, national, regional and global discourse to contend with climate change and enhance biological diversity to attain safe and sustainable food and environmental security.

Embed perenniality into programs and projects: Scientists, practitioners, donors and other investors have an opportunity to ensure that perenniality gets placed in different programmes and projects (e.g. GEF, CGIAR and NARS) that are being designed to enhance progress toward sustainable development goals. Interesting crops that could be embedded into such programs.



Develop co-learning processes with farmers, community facilitators and advisory services: There is an urgent need to recognize the shortcomings of mono-cropped farming and embrace efforts to integrate perennials in complex systems such as intercropping, rotational cropping, and multi-story systems and crop-livestock-tree systems. Increasing grain production is important, but there may be more value in terms of dual-purpose crops and the co-benefits of perennials for ecosystem and socio-economic services. Examples of perennial systems that are ready to be mainstreamed are: Smallholders and Family Farmers.

The International Year of Family Farming (IYFF) can be a starting point to help smallholders and family farms improve their livelihoods, as well as mitigate and adapt to climate change. Engage policy processes: Perennialized agriculture needs to be brought to the attention of relevant policy makers and processes. These include Global Technical Committees such as COAG and CFS as well as the CBD, CCD, and UNFCCC Conventions. Evidence that perennial agriculture can meet sustainable development goals and can be of value to various national action plans must be clearly articulated. Policies must be reviewed for their support or inhibition of perennial agriculture. For example, access to land tenure may have implications for the adoption of perennial crops just as it does for existing perennials such as trees.

Develop a campaign to adopt perennial agriculture: Within agreements such as the Bonn Challenge and the Sustainable Development Goals, it may be possible to set a target to integrate perennial crops, trees and forages in 20 per cent of annual cropping systems by 2030.

### **Research Gap**

The integration of perennial species into farming systems, whether crops, forages, shrubs or trees can contribute to achieving multiple global development goals, including: increased food security and nutrition; the mitigation and adaptation to climate change and the enhancement of improved yields are critical to human development. Studies in this area have not looked at perennial farming in developing countries and Kigezi specifically. This study assessed the contribution of tea / perennial crop farming in poverty eradication and the impact of tea / perennial crop farming on food security impacts in Kigezi region.

Study excavated the rationale behind perennial agriculture in Uganda, evaluated the threats / opportunities and suggested remedies.

### **Kigezi Highland Tea**

Kigezi Highland Tea has three production centers of Kisoro, Kabale and Kanungu handling around thirty five thousand (35,000) kilos of green tea per day. The study established that this amount is not enough to guarantee full capacity production which can respond adequately to the aspirations of the proprietors and the government aspirations of, among others, poverty alleviation and tax enhancement.

The main goal of the Poverty Eradication Action Plan (PEAP) is to support agriculture and tourism because they are major sectors that do not only employ the majority of Ugandans but are the sectors through which the country can get foreign exchange through exports and tourism attraction. The government therefore has endeavored to support extensive planting and also provide the farmers with inputs like pesticides and seedlings although at a low scale. There has also been continued sensitization of the farmers and the outgrowers.

However, in some places like Kisoro where the study was conducted, the farmers do not see the value of the entire project and hence some even uprooted the tea plants resorting back to food crop production. The company's (KHT) initiatives like tea collection to subsidize transportation has greatly enhanced the green leaf production. Indeed, where the farmers have delivered the tea themselves, the company has paid a much higher price per kilo of the harvest.

### **A Threat to Food Security?**

The proprietors and the farmers of Kigezi Highland Tea contend that this activity has not and cannot lead to food security but a critical look at the trends of food production in Kigezi region suggest otherwise. It ought to be noted that food prices in the region have slightly shot up at least in the last ten years. This situation could be a result of several other factors like general inflation but the coming in of this cash crop could also be a factor for the same.

KHT management encourages the out growers to grow tea concurrently with other food crops to mitigate issues of food insecurity, create avenues of self-reliance and sustenance like creation of savings schemes. It should be noted that the company is operating on a one hundred percent out grower's basis and hence there is critical need for co-existence between the two stakeholders.

The Minister for Agriculture, Animal Industry and Fisheries, Mr. Frank Tumwebaze, in an interview on 8 March 2022 opined that smallholder farmers in Kigezi sub-region should not engage in Tea growing because it was unprofitable. He noted that Kigezi was characterized by land fragmentation due to a high population density and a hilly terrain. Local leaders have been encouraging every household to grow tea. For a long time, Kigezi didn't have any significant food crop until 2008 when the government introduced tea growing through the National Agriculture Advisory Services (NAADS). However, some people like the minister are of the view that tea growing is unprofitable for smallholder farmers.

Many households in Kigezi, especially Kanungu, own between 0.2 - 0.8 meters of land and such a small piece of land cannot allow the farmers to reap from an investment like tea growing. In such a case scenario, it could be a few farmers and institutions such as the churches with bigger chunks of land to engage in tea farming productively. Smallholder farmers should put much emphasis in highly profitable crops like Irish potatoes, tomatoes, among others.

However, other people like Mr. Samuel Mugasi who is the Executive Director of NAADS are of the view that tea has a big economic impact on the national economy and should not be ignored. He noted that tea exports had increased from 50 million kilogrammes to 80 million kilogrammes per annum since 2008 and that Uganda's earnings increased from 50 million USD to 90 million USD per annum since 2008.

However, there are mixed feelings about the farming of tea in Kigezi region. It is worth noting that Uganda is the third leading producer and exporter of tea (45,000 metric tonnes) after Kenya (295,000 metric tonnes) and Malawi (55,000 metric tonnes). The tea grown in Uganda is of a medium quality and is used in blends with premium quality teas such as those from Kenya, according to the Food Agricultural Organization.

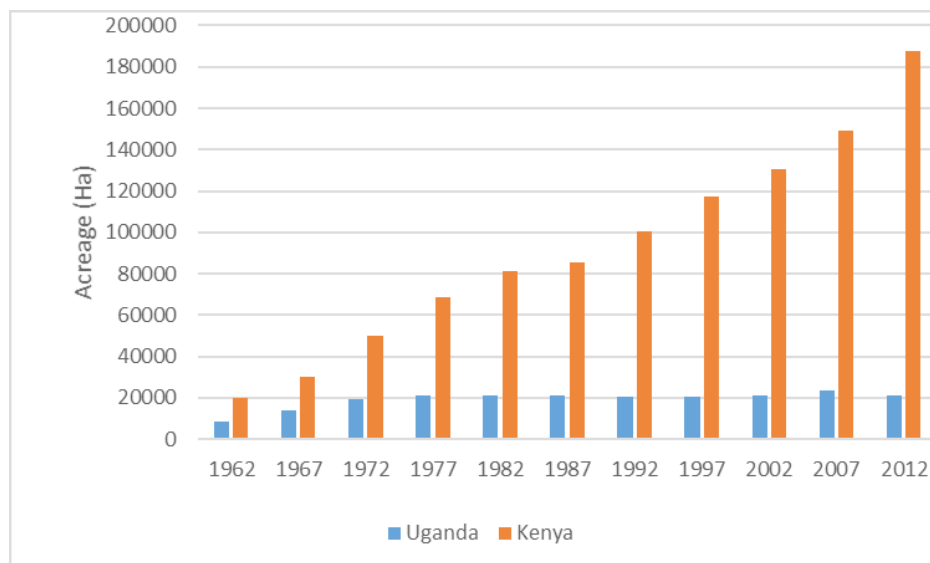
### Absence of Certification

The Uganda Development Corporation (UDC) partnered with the private sector in three tea factories in Kabale, Kisoro and Kanungu. UDC partnered with Kigezi Highland Tea Ltd (KHTL) in two tea factories with 450 kilogrammes per hour production capacity. The partners, who were already in business, constructed the factories while UDC provided processing equipment, generators and vehicles for transportation of raw materials and processed tea. Since their commissioning in August 2018, the plants have injected a monthly average of Shs240 million per month in the purchase of green leaf, payment of wages and utilities, and generated export revenue through the sale of tea at the Mombasa auction.

Having been commissioned in August 2018, the corporation has since December 2019 and in collaboration with Kigezi Highland Tea Ltd undertaken a drive to facilitate the planting by out-grower farmers of an additional 10 million tea seedlings in areas adjacent to the two factories located in Kabale and Kisoro.

However, despite all the above, there is still limited corporate social responsibility from KHT with few field extension officers and hence less information on what to plant, how, when and provision of fertilizers and herbicides to control weeds and boost yields respectively. Despite the fact that Tea is the third cash crop export, Uganda's tea production has increasingly reduced in the recent years and the acreage under tea production has largely remained unchanged.

### Trends of Tea production in acreage between Uganda and Kenya ('000 hectares) 1962 - 2012).



Source: International Tea Committee, 2012

### Ethical Considerations of the study

The study was conducted with financial support of Kabale University. A letter of introduction to the respondents was sought from the Directorate of Research and Publication to ease the process of data collection and prevent incidences of skepticism and data hoarding. Due diligence was performed in regard to the national regulations on Research as per the directives and aspirations of the National Council of Science and Technology.

## **The parity of development in the mist**

### **Impact of tea/perennial crop farming on food security in Kigezi region**

Many farmers in Kigezi region are sceptical of joining the sector because tea is a mono crop. Once tea is planted, a farmer cannot practice mixed agriculture. This means that growing tea does not only need a stable land tenure system, but it may have major short-run implications on food security and household incomes as a result of the long time lag – 3 years between tea gestation period and production (Oxfam, 2002). In addition, infrastructural constraints turn Ugandan smallholder farmers into price takers. This is mainly because much of the smallholder tea output is marketed through the large tea estates and factory owners. The use of Ugandan tea on Kenyan blends at the Mombasa Tea Auction denies Uganda the branding opportunity. Moreover, industry players are of the view that it will be difficult for Uganda to regain its brand because Ugandan tea is now widely believed to be Kenyan tea.

### **Kigezi Highland Tea On the Spot for Child Labor**

A conversation with Mr. Elisa Twinomujuni, the LC I chairperson of Keishamunyoro cell in Bushuro Parish in Kitumba Sub County painted a grim picture on the operations of KHT. As local leaders they have tried to engage the management but they were told to back off. The local leaders and other stakeholders accuse KHT for allegedly employing hundreds of child workers on their nursery beds and tea plantations across Kabale district. They point out that it (KHT) was contracted by government as a lead agency to supply 22 million plantlets to farmers in the district.

However, Rights activists and local leaders say the company continues to employ children despite repeated warnings because they provide cheap labor. The children are employed to do casual work such as weeding, clearing land for tea planting, preparing tea plantlets, watering the plantlets as well as loading and offloading the harvest.

They now want security and relevant bodies to take up the matter. Mr. Julius Kapere, a resident of Kitumba Sub County where the company has nursery beds, wants the district leadership to move in and save the situation before it gets out of hand. Elisa Twinomujuni, the LC I chairperson, Keishamunyoro cell, Bushuro Parish in Kitumba Sub County says that as local leaders they have tried to engage the management but they were told to back off. He says the biggest challenge is that those who have openly condemned the child labor are labelled anti-development. Twinomujuni also criticizes some parents for sending their children to work on the tea estate in the name of looking for school fees. The majority of the residents opine that the children must work on the farms to support themselves and their families because the breadwinners (men) have resorted to alcoholism.

Bosco Arop, the Kabale district Police commander, says that his office has received complaints over the matter, adding that their inquiries indicate that the company is involved in child labor. He says the most affected area is Kitumba Sub County, where hundreds of school-age-going children are deployed. Arop says they are considering moving in to pick the children and their employers.

### **Environmental and Legal Concerns**

It was established by the study that Court has issued a temporary order stopping the National Environment

Management Authority (NEMA) from interfering with the tea plantation belonging to Kigezi Highland Tea Ltd in Rurindo, Rukungiri District. Kigezi Highland Tea Ltd belongs to Prof. Mondo Kagonyera, the former Makerere University Chancellor and businessman, Mr. Garuga Musunguzi. The duo had petitioned the High Court, Land Division, after about 50 acres of their tea plantations was destroyed. The tea plantation measuring approximately 96.1 hectares at Rurindo in Rukungiri District, was a Presidential initiative that is being used as a lead agent in the implementation of tea projects in Rukungiri district in compliance with the with the government's policy on tea growing and provision of tea seedlings through NAADS. It had generated about 3 million seedlings on a monthly basis, which were distributed to residents since the project was a community-based demonstration farm.

According to several accounts, NEMA had notified Prof Kagonyera and Musigunzi on July 2014 warning them to stop their illegal tea activities in the wetland because it was in breach of the constitution and the National Environment Act. NEMA gave the duo 21 days to stop any activities in the wetland in vain. As a result, NEMA swung into action after its inspectors carried out an environmental assessment in the wetlands and found out that activities of Kigezi Highland Tea Ltd were continuously degrading the environment.

In its findings, NEMA stated that Prof Kagonyera and Musunguzi were depleting the wetland in an illegal manner that is likely to affect the hydrology and biodiversity of the wetland. NEMA also accused the businessmen of undertaking large-scale tea growing in a wetland without an environmental impact assessment.

Kigezi Highland Tea Ltd argued that the land in question had never been gazetted as a wetland and that the directors, Prof Kagonyera and Musunguzi were not aware of any wetland degradation done by them. They therefore applied for an injunction stopping NEMA from destroying their plantation, which was granted by the High Court Land Division Registrar. The order would remain in force until the substantive suit filed by Prof Kagonyera and Musunguzi is heard and disposed of. Lack of coordination of NEMA, KHT and MAAIF activities has increased uncertainty among tea sector stakeholders. According to Mitchell (2006), the failure to coordinate tea research has manifested into other problems such as low adoption of high yielding clonal tea, low quality of tea as opposed to quantity, information gaps on the existence of better variety of tea or the adverse effect of poor tea husbandry on the environment, and farmers do not know how to mitigate the effect of climate change on their crops.

Closely related, it was established by this study that KHT lacked the Rain Forest Alliance certification which is a global accreditation body that puts a lot of emphasis on environmental protection, people and business for sustainable development and hence the concerns by NEMA could hold some weight. More so, as populations grow, land becomes smaller and yields become less, tea inclusive.

### **Kigezi Highland Tea; Transforming Lives**

Because of its proximity to the Equator, Uganda has a conducive environment for tea growing and hence government ought to support this sector as it comes with several advantages like job creation, industrialization and improvement of the GDP. It can be noticed in the areas where the tea farms are established, especially Kabale and Kanungu, that the people's lives have been turned around for the better as youth and women employment has improved.

## Way Forward

There ought to be protracted efforts by government to have all the tea harvested in Uganda processed and parked in the country. The weekly Mombasa Auction depicts Uganda's tea as a Kenyan commodity. More so, while the tea-growing areas of Kabale, Kanungu and Kisoro cover 800 acres of tea with 25 per cent of the area undergoing regular plucking, there are no factories near the tea planting zones which makes transporting costly and hence need to reverse this trend.

The government of Uganda should also look into avenues of setting up a regulatory framework like the Tea Board of Kenya (TBK) which would regulate tea growing, research, processing, and trade and promote Uganda's tea in local and global markets. More so, a regulatory framework would guide the government on all policy matters related to the tea industry through the relevant ministry.

Uganda needs to carry out several institutional reforms so as to enhance efficiency in delivery of tea products and services and to reduce the challenges while working towards a common goal. As such, raising smallholder farmers' incomes and reducing poverty, especially in the rural areas, should be the priority.

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