

# Jobs and Entrepreneurship for Youths in Sub-Saharan African nations

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# Jobs and Entrepreneurship for Youths in Sub-Saharan Africa Nations

## ISPALE- GIMI - KIBALI model, DRC

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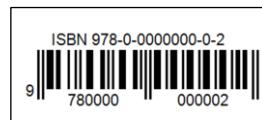
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**Dr Ilan Bijaoui**

## **Abstract**

More than 60 percent of the African population is younger than 24 years and 75 percent is younger than 35 years (FAO, 2018).

Of the 420 million aged youths somewhere in the range of 15 and 35 years in Africa today, the larger part is jobless and those utilized have unstable jobs. In excess of 10 million youths make advances in the job market every year, whereas just 3,000,000 formal jobs are developed yearly (ADBF, 2018). The absence of incoming jobs pushes youths into the informal sector where operates are ordinarily less stable and have lower salaries. Women are especially influenced. Thirty-five percent of female youths are unemployed, educated, or trained contrasted with just 20 percent of men.

Low economic growth fuels conflicts. The need for employment opportunities additionally causes broad migration from the continent as youngsters look for better lives and assets to accommodate their families at home.

How can we improve the development pace of jobs for youth and successful young entrepreneurs? Which environments and abilities are required? How to adjust opportunities to entrepreneurs' profile? Which policy, programs would we be able to propose to international organizations, governments, and Local experts so as to improve the employment environment?

Development of jobs and entrepreneurship supporting the economic development be generated by programs concentrated on individual entrepreneurship only.

Our model proposes to care groups of understudies/learners working together for improving the successfulness of existing and future entrepreneurs along Education and Training Open Incubators (ETOIs) value chains

around an anchored cluster to an MNC or a domain of specialization.

## CHAPITRE I

### Youth Education and Youth Employment

USAID (2010) characterizes youth groups as indicated by the age:

**Youngsters (under 15 years):** In school and out of school children are a part of the labor framework of agriculture, mines and other necessity jobs so as to help their family.

**Youth (15–19 years):** These years are basic to support and extend health and education gains and to prepare the youths for citizenship, family life, and the workforce.

**Developing adulthood (20–24 years):** programs should keep on supporting positive and productive basic leadership and build flexibility.

**Transition into adulthood (25–29 years):** programs interface youth to employment and business opportunities, just as empower youth to build resources and give financial, health and social help for family life.

#### Youth Education

##### ***Education completion***

Elementary school completion rate is low in SSA nations at 69% contrasted with 91% in South Asia and at least 94% in other regions (Baah-Boateng 2016).

Those countries have the lowest Gross Enrolment ratio (GER) of 43% at the secondary level compared with its closest comparator, South Asia with 66% and at least 80% in other regions. 15 countries reported GER above the region's average of 42.8% with South Africa, Mauritius, Cabo Verde and Botswana Mauritania, Burkina Faso, Uganda, Mozambique and Niger recording GER below 30%.

Access to tertiary education in the area is of 8.6% contrasted with 21.9% in South Asia and 33.1%–64.4% in developed countries. Just a small ratio of students is enrolled in the disciplines of science, technology, engineering and mathematics (STEM). Cameroon, Rwanda, Uganda, and Madagascar spent a sum identical to somewhere in the range of 6% and 8% of GDP per capita for abilities

development, contrasted with between 11% in Singapore and 29% in Thailand.

##### ***Out-of-school youth (OOSY) in SSA countries***

The OOSY in SSA made up 35% of the world's out-of-school children and youth in 2014 (UNESCO Institute for Statistics - UIS-, 2017; The World Bank Group, 2018). OOSY is 34% for the 12-14 years age group, and 58% for the 15-17 years age group (UIS, 2017).

The ratio of OOSY in country regions stagnated at about 40% over the most recent 10 years before 2014. UNESCO estimates that in 2016, 263 million youth were out-of-school (UNESCO Institute of Statistics, 2018).

Sub-Saharan Africa remains with the most elevated out-of-school rates for all age groups (UNESCO, 2018).

Of the 63 million out-of-school children of grade school age, 34 million, or more than one-half, live in sub-Saharan Africa. Southern Asia has the second-most elevated number of out-of school children with 10 million.

Six nations have more than one half of the 15-17 years old as OOSY, Burkina Faso (66%), Cote d'Ivoire (55%), Mali (60%), Niger (76%), Senegal (51%), and Tanzania (53%).

Nations with the low OOSY rates for ages 15-17 were Cameroon 27%, Lesotho 25%, Namibia 23% and Congo, Malawi, and Zambia each at 22%, while Kenya was 12% and Liberia 19%.

Ethiopia made the best accomplishment in decreasing the ratio of youth aged 15 to 17 years with no education from 80% to 40%. Those with deficient essential education expanded from 17% to 54% during a similar period.

Women represent a higher ratio of OOSY than men, except for Lesotho. A few nations that have contrasts as high as above 20% incorporate Nigeria and Sierra Leone at 22%, Liberia (25%), DRC (28%) and Guinea at 29%.

Niger, Burkina Faso, and Mali have over 60% of OOSY, while Uganda, Liberia, and Nigeria have the most minimal ratio, with fewer than 40% (UIS and GEMR, 2016).

Low-income nations in Francophone Africa have a higher ratio of youth who have never visited, or who have dropped out of school than nations in the lower-and upper-middle of income, in Anglophone and Lusophone Africa (Inoue et al., 2015). A high ratio of OOSY are living in conflict zones, for example, South Sudan and the Democratic Republic of Congo; in camps for internally-displaced individuals; and as displaced people, for example, the Somalis living in Kenya (Watkins, 2013). In West and Central Africa, 34% of children mature enough to be in lower auxiliary education are missing (UNICEF, 2014).

## Youth Employment

### ***Countries classification and occupation***

Employment is different in resource-rich salary (RRI) nations than in the non-resource rich nations (Fox and Thomas, 2016).

RRI countries are those with a ratio of resource exports to total exports was above 80% between 2008 and 2012 such as Nigeria, Angola and Zambia. Botswana qualifies as an resource-rich nation as indicated by this classification however is in the classification upper middle salary (UMI) nations, such as South Africa and Gabon, because of its high unemployment level.

Belong to the lower middle income (LMI) category countries such as Cameroon, Cote d'Ivoire and Ghana and to the low income (LI) category countries such as Benin, Togo, Ethiopia and Mozambique.

Most of Africans in LI, LMI, and RRI nations still employment in agriculture, respectively around 65%, 55% and 60% either all alone they family farm or as income employment on different farms or both. Just UMI nations have employment in agriculture decrease (Fox et al, 2013).

Household enterprises (HEs) incorporate independently employed individuals running businesses that may utilize relatives without salaries.

70% of non-farm undertakings are independently employed. About 20% of these endeavors incorporate a relative in the activity, and just 10% have employed somebody outside of the family. In

most SSA nations, the public sector dominated wage employment in the 1960s and 1970s. By 2005, this pattern had reversed. The private sector created most of the wage jobs found in SSA today in all categories, exception the resource-rich category in which the majority of employment is in wage services and industry, respectively 40% and 20%.

### ***Youth labor force***

Of Africa's nearly 420 million youth aged 15-35, one-third are unemployed, another third are vulnerably employed, and only one in six is in wage employment (AFDB, 2016). Youth faces roughly double the unemployment rate of adults, with significant variation by country. The problem is not just unemployment but underemployment, which peaks at just over half of youth in the labor force in low income countries.

While 10 to 12 million youth enter the workforce each year, only 3.1 million jobs are created, leaving vast numbers of youth unemployed.

90% of Africa's youth live in low and lower-middle income countries and the biggest challenge they face is the lack of formal jobs. In these countries, 10 to 15% of youth labor force participants find wage employment, while 30-50% are vulnerably employed.

Among youth in vulnerable employment, 16% had less than primary education while just 7% had tertiary level education (Sparreboom and Staneva, 2014).

Agriculture occupies more than 70 percent of the labor force in Africa's low-income countries and more than 50 percent in its lower-middle-income countries (Filmer and Fox, 2014).

Youngsters do unspecialized temporary jobs and are upheld by their families for whatever length of time, possibly five years before they settle into wage jobs or (mostly) self-employment (Bridges et al. 2013). The young entrepreneurs are mostly driven by the necessity to seize all opportunities for survival. Their economic activities are often precarious.

Programs focused on complementary basic education and improvement of socio economic conditions, on education adapted to the need for employment and entrepreneurship or both try to improve the employment conditions of youth.

## Complementary Education Initiatives

### **Stellenbosch USIKO Youth Project, South Africa**

USIKO (tradition) started operating in 2001 in Jamestown near Stellenbosch on psycho-social issues of youngsters in the territory related to the high level of children out of school (givengame website).

The work focused on youth aged 12 – 18 years old, targeting children of impoverished farm workers and adolescents from townships and remote rural settlements as well as young offenders referred by the court system. Wilderness treatment forms a focal element of the programs, as a way to investigate individual issues and develop aptitudes in leadership just as bring awareness of, and organization with nature. The program aims of keeping children in school and completing their education.

The program's attention is on confidence, fundamental abilities development, young sexuality and pregnancy, HIV/Aids awareness, girl-to-women, and boy-to-man development and other pre-adult development issues.

The learners receive weekly workshops, 3 – 4 day wilderness camp experiences, and educational and fun excursions.

15 000 youths were directly and positively impacted. 77% of parents felt their child was less prone to gangsterism and 85% said their child was more committed to staying in school as a result of being in the Usiko-based programme.

### **Basic Education for Urban Poverty Areas (BEUPA), Uganda**

To cater for out-of-school children of elementary school age in poor urban regions of Kampala, the government established Basic Education for Urban Poverty Areas (BEUPA), a non-formal education project.

This project has established 72 learning centers in 70 of the 97 parishes of Kampala, trained more than 170 educators, collaborated with more than 1 500 community individuals and came to more than 5 800 children.

BEUPA plan to give fundamental education, skills oriented curriculum, an adaptable learning program and extra modules for employment-oriented education.

### **Complementary Basic Education in Tanzania (COBET), Planet of Alphas**

The goal for COBET was to give complementary basic education, to build up integral essential education curriculum and basic competencies. In 2004 the program prevailing to improve the enrolment rates for young women and young men, with GER of 106.3% and NER of 90.5%, from the 2002 benchmarks of a 98.6% GER and 80.7% NER.

### **Complementary Basic Education (CBE) Programme, Ghana**

As indicated by the UNICEF (2013), Out-of-School Report for Ghana, 24% of youngsters from 8 to 14 years in Northern Ghana are out of school. More than 400,000 are out of school children in the nation (Amoah and Wesley-Otoo, 2016).

There are more than 2,000 CBE learning centers in 46 areas in Northern, Upper East, Upper West, Brong Ahafo and parts of Ashanti districts serving OOSC from 8 to 14 years and people in remote regions with essential fundamental abilities, proficiency, and numeracy.

CBE contacted 98,959 OOSC in 2012/2013, 2013/2014 and 2014/2015 involving 51,334 (51.87%) young men and 47,625 (48.13%) young women.

Around 51,168 (93.57%) of the 54,682 children that were enlisted and 24,412 (94.04%) of the 25,959 young women selected finished the CBE course of concentrate in 2014/2015, surpassing the objective by and large consummation and young women' culmination paces of 85%.

### **Action Scolaire d'Appoint pour les Malgaches Adolescents (ASAMA)**

In 2001, the United Nations Development Program (UNDP) and the Malagasy Ministry of Education and Scientific Research made the joint program, supporting the Promotion of Education for all, the ASAMA program (UNESCO, 2015). Stage of Organizations (PACA) is in Charge of ASAMA and Post-ASAMA.

In 2003, the ASAMA strategy was evaluated and enhanced with the goal that it could be executed outside Fianarantsoa, and furthermore be centered at youngsters more than eleven. The dissemination of the program's development was bolstered through the Education for All (EFA) development program and through a pilot venture, executed by UNESCO.

In 2009, the joint program arrived at an end because of Madagascar's protected emergency. Be that as it may, distinctive non-governmental organizations (NGOs) chose to restore ASAMA as PACA to help the legislature and the education service in raising education levels and the essential enrolment rate. PACA proceeded with the usage of the ASAMA program at its various levels: pre-ASAMA (Ambohitsonatra), ASAMA, and post-ASAMA.

10 months after, 52.6 percent of members passed the essential equivalency assessment. Of those going to the Planet of Alphas program, 66.7 percent of youngsters passed the last test, 37.5 percent at the advanced level. After intensive training in reading, 18.2 percent of those leaving the program enrolled in a formal primary school and 5.3 percent registered for the ASAMA programme.

#### ***Speed School programme, Strømme Foundation***

Around 3 million school-aged youngsters in Mali, Niger, and Burkina Faso are not joined up with school, with national study knowledge. With the significant number of out-of-school children in mind, the Strømme Foundation, a Norwegian development organization, made a Speed School program to react to the high level of out-of-school children in Mali, Niger, and Burkina Faso. The program was developed by education curriculum experts and intends to give out-of-school children ages 8-12 with a quickened nine-month educational program and to inspire them into the governmental elementary educational system a while later. 89% of out-of-school children finished the nine-month programme.

Speed School graduates saw important gains in math and language aptitudes, putting them on track with their friends, and 66% of the Speed School graduates re-appeared the educational system after the program finished, among them; three out of four successfully finished their first year back in school (Innovations for Poverty Action, 2014).

#### ***School Re-Entry for Teenage Girls, Kenya***

School re-entry for young women in Kenya Policy reactions on adolescent pregnancy seems to have been fruitful in Kenya. In the Kenyan setting, preceding 1994, young women who dropped out of school because of high school pregnancy were unreasonably avoided from the education framework. This pattern began changing with the

sanctioning of the school reemergence strategy in 1994.

One of the districts in Homa Bay County Kenya, with an extremely high pace of adolescent pregnancy demonstrates that grade school fulfillment rate for young women is low. In Homa Bay County 48% of young women in the district are out of school, and 40% of young women aged 15-19 have started childbearing. In Kenya, 98% of young women who have ever been pregnant are out-of-school. 59% of pregnancies among young women aged 15-19 years are unintended. 45% of serious fetus removal entanglements are among young women. Because of the policy discoursed and the intuitive media battle, critical positive changes encompassing reemergence were seen in the community. There was an increment in the ratio of out-of-school young women who returned school – from 10% at benchmark to 16% at end line" (Walgwe et al., 2016).

#### ***Team Amigo, Zimbabwe***

Gift, Brighton, Simbarashe and Farayiy carry education to individuals' homes - individuals who aren't in school, dropped out, and are in the provincial regions (Productionunlimited site). The group is building up an application to give each understudy in Zimbabwe equivalent access to course books, educational exercises and other learning materials.

#### ***Save the Children***

In 2012, Save the Children Canada and The MasterCard Foundation started a partnership to work with out-of-school youth (youthaction site). The venture enables youngsters from rural areas to build skills, transition to education, further training or small enterprise. It focuses on the agricultural sector.

In Ethiopia the program is accounting for 80% of self-employment in the informal sector finance. 74% of the youth population is involved in self-employment activities within the informal and agricultural sectors.

In Uganda, self-employment and enterprise development enable youth to improve their livelihoods given that the country has the highest rate of necessity driven (44 %) vs. opportunity driven (56%) entrepreneurs.

In Malawi, 62% of the 15-18 year old youth were occupied with some type of occasional or sporadic action. Employment is regularly a consequence of

limited choice and the requirement for a wellspring of income. Poultry has been distinguished as a typical value chain over all nations and territories.

Small scale, straightforward processing of items, for example, grain, vegetables or organic products is more feasible for youngsters than the more intricate frameworks required for processing meat products. It comprised in maize and rice processing in Burkina Faso; teff and sorghum products such as flour, food stuff and animal feed in Ethiopia; maize and cassava items in Uganda. Off-farm opportunities include input-supply, small-scale irrigation, tool-making, transportation.

#### **PAJE-Nièta, Mali**

PAJE-Nièta is a five-year USAID funded project launched in 2010, with support from Mali's Basic Education and Accelerated Growth divisions. The program targets rural youth between 14-25 years. The project's principle is to furnish out-of-school youth with fundamental education, entrepreneurship training, and specialized agro training. Beneficiaries who start an enterprise on their own are visited by a technical member of the training team who observes the enterprise to confirm if it is being conducted in the appropriate manner. PAJE-Nièta is operational in four out of the eight regions in Mali. Between 2010 and 2015, 10,951 rural youth received technical training, and 8,077 became self-employed after receiving kits to start micro-enterprises. 87% of females who completed the training became self-employed, compared with 75% for males.

#### **Team Muntjatna**

Team Muntjatna, Alfadel, Manara and Yassin, is making an online stage to help dislodged individuals in Sudan sell their carefully assembled items universally. The thought is to carry another wellspring of salary to individuals who have been compelled to escape from their homes and frequently wind up operating in block ovens which damage their health. CHIKUN, the Local Government Education Leadership (LGEA), Kaduna State, on June 2019 flagged-off the distribution of over 68,000 educational materials to 255 primary schools in the Local Government Area. (realnewsmagazine, 2019). The materials were procured with school improvement grants from Global Partnership for Education project (PGE), a 21.5 million dollar World Bank education support programme.

The educational materials incorporate around 50,000 exercise books, 5,000 reading material, 10,000 charts, 3,000 lesson plan books, tables and seats and blaze cards packs.

#### **Advancing Youth Project (AYP) USAID**

AYP was launched in the range of 2012 and 2017. The fundamental objective of the project was to give expanded access to quality Alternative Basic Education (ABE) services, social and leadership development, and operates for Liberian youth and young grown-ups, aged 13–35 who were unschooled or out of school, and with none or minor proficiency and numeracy abilities. ABE has three levels appropriate information and communication technologies, basic training in skills, entrepreneurship and leadership. Herewith evaluations of two participants (edc website).

Helenah Farway couldn't read or write. However, when a neighbor educated her regarding the ABE classes being offered by Advancing Youth, she seized the chance to take an interest. By going to night classes, she learned how to read and write. She additionally learned carpentry through an apprenticeship program, where she built seats, beds, and small decorations for Liberian homes.

Fofee Ndorbor, a 25-year old from Lofa County, spent through a large part of the post-war years securing odd positions until he found out about the new ABE classes. As a feature of his preparation, he figured out how to establish a small scale town investment funds and credit affiliation (VSLA) a basic need in his locale, which was far away from any banks. The VSLA system is comprising just of a small lockbox and three keys distributed all through homes in the community. Over an extensive training process, coaches from Advancing Youth's local partners helped Ndorbor and his companions learn how to save and manage funds, track deposits, and club policies that promoted transparency. She additionally figured out how to make cleanser and do essential auto fix, attractive aptitudes that she has utilized into monetary freedom.

**CHAPITRE III****Youth Entrepreneurship Programs of International Organizations and Foreign Countries**

The following programs support technically and financially local individual entrepreneurs, cooperatives and agricultural specializations in SSA countries.

**The Technical Centre for Agricultural and Rural Cooperation (CTA), EU**

CTA is a joint universal organization of the African, Caribbean, and Pacific (ACP) Group of States and the European Union (EU) ([cta site](#)).

Its main goal is to propel food security, flexibility and economic growth in Africa, the Caribbean, and the Pacific through developments in durable agriculture. CTA operates under the system of the Cotonou Agreement and is supported by the EU.

CTA advances youth entrepreneurship and employment through access to business development services and ICT policies. CTA operates legitimately through incubators and established employment development specialist co-ops, agrarian organizations, NGOs, employment affiliations, agriculture, and ICT firms. Herewith few programs propelled by CTA for youth.

**AgriHack process**

The AgriHack process supports young e-farming (ICT4Ag) and start-ups ([cta.int site](#)). The goal is to help develop business services offered by young ICT4Ag new companies, which will add to the transformation of agricultural value chains in ACP countries, improving profitability and market access in the agrifood area. Up to 2018, 700 young entrepreneurs have partaken in Pitch AgriHack and around 26 ICT hubs or foundations from 20 nations have been included.

**Manioc21 program**

The urban household demand for traditional cassava processed products (e.g. cassava cake, chips, flour, etc.) is growing with the increase in middle-class income.

This potential was confirmed by numerous of small grants ventures propelled by CTA in April 2017 in Cameroon, the Central African Republic and the Democratic Republic of Congo (DRC). Manioc21 program expects to quicken inventive and new plans of action that make showcase linkages and elevate added-esteem activities to be scaled-up at the regional level.

The support is given to five cooperative in the Democratic Republic of Congo (DRC) and five in Cameroon, a total of about 10,000 members, under a detailed audit, needs analysis, training of 50 leaders, development of business plans, budget allocation for processing equipment, coaching for commercial development and financial intermediation.

***EMPRICE, West African rice value chain***

CTA together with the Africa Rice Center (AfricaRice site) and the Syngenta Foundation for Sustainable Agriculture, has propelled EMPRICE that support youth entrepreneurship, reinforce market ties, and upgrade jobs in the rice areas of Mali and Senegal.

The project intends to build incomes for up to 2,500 smallholder farmers in its two-year lifetime. 15,000 rural youth are targeted via ICT channels with information on opportunities for entrepreneurship in the sector.

***iDEAL, Burkina Faso***

iDEAL aims to accelerate access to markets for young people in the country and strengthen the development of agricultural entrepreneurship among young people through the use of ICT.

CTA and the Yam Pukri organization, spent significant time in ICT for financial development, assemble experienced e-farming specialist organizations, such as Afrique Verte and its SIMAgri or Manobi services.

400 young Burkinabe benefit from iDEAL, specifically using market information services. The project plans to benefit to more than 25,000 professionals.

In 1998, a small group of youth established Yam Pukri, as an ICT organization with the command of helping youngsters better comprehend innovation fuelled changes in their environment ([yam-pukri website](#)). It began as an ICT training center devoted to making communication technologies accessible to underprivileged youth in rural and urban Burkina Faso.

Yam Pukri is now a social and entrepreneurial hub for youth in Ouagadougou. Yam Pukri has developed to over 200 computers, 12 salaried positions and up to 50 contract representatives and partnership agreements with several European organizations.

### **CTA Vijabiz in Kenya**

CTA Vijabiz project has chosen 166 youth groups to get financial support. The participation of the chose youth groups complete 2,373 young farmers, who will be the recipients of the undertaking being actualized in Kilifi and Nakuru regions in Kenya somewhere in the range of 2018 and 2020.

Kibao Kiche Fish Farmers in Kaloleni, Kilifi province, have a fish lake where they acquire fingerlings from the Ministry of Agriculture, Livestock and Fisheries (MOALF) and breed fish. The Umoja Youth Group in Kilifi North and Dundori Stars Youth Group in Bahati, Nakuru, produce and sell yogurt locally. Speak Youth Group, from Kilifi province, has cooperated with Equatorial Natural Millings Company to process braced maize flour. The Group at that point bundle the maize flour, which is blended with rice, wheat, cinnamon, amaranthus and pumpkin seeds, before selling it at nearby local market.

### **Global Initiative on Decent Jobs for Youth**

In October 2014, the United Nations High-Level Committee on Programmes selected youth employment as a prototype for an issue-based initiative that would mobilize the capacity of the United Nations and global actors committed to more and better jobs for youth.

Around the globe, many organizations, institutions and groups are working hard to provide decent jobs for young people.

However, with a problem of this scale, better coordination is needed. The partners include governments, social partners, youth and civil society, parliamentarians, the private sector, the media, United Nations entities, academia, foundations and regional institutions.

Decent Jobs for Youth is an alliance of multiple partners both within and beyond the United Nations. The partners include several agencies, funds and programmes of the UN system, and a growing number of governments, social partners, businesses, youth organizations, foundations,

academic institutions, media outlets and more (decentjobs site).

The International Initiative on Decent Jobs for Youth includes organizations such as FAO, ITC, ITU, UNCTAD, UNDESA, UNDP, UNEP, UNESCO, UNFPA, UN-Habitat, UNICEF, UNIDO, UNRWA, UN-WOMEN, UNWTO, WIPO, and the World Bank Group driven by ILO (2017).

A three-year partnership between INCLUDE, the International Development Research Centre (IDRC) and the International Labour Organization (ILO) include researches on, research on soft and digital skills for youth and research to foster work-based learning programs and mentorship.

Mentoring young agricultural graduates for decent jobs in the Benin labour markets is led by Université d'Abomey-Calavi in collaboration with DagriVest. The impact of a national apprenticeship-based entrepreneurship strategy in Nigeria is led by the National Centre for Technology Management, Connecting young, vulnerable women in Mozambique is led by Associação Académica de Nutrição e Segurança Alimentar in collaboration with Oxford Policy Management.

### **Better Utilization of Skills for Youth (BUSY), ILO**

Regularly, young students become employees in the undertaking wherein they have been trained (Barlet and d'Aiglepiere, 2016).

These adolescents try to be employed where they are able to acquire 'start-up' capital. Filmer and Fox (2014) estimates that this group represents 5% only of the African employment power.

BUSY is a pilot ILO activity that supports in Africa, the trial of abilities training and youth employment development scheme for vulnerable and minimized youth ages 16 to 24, and especially young women and youth ages 16-17. (ilo.orgafrica site).

The general objective of the BUSY project is to expand respectable job creation and employability of youngsters, thereby contributing to reduce unemployment, vulnerability and poverty.

Program intercessions have seen almost 62,000 youth the nation over access training to improve employment aptitudes and more than 32,000 accesses new or better employment.

The program empowers youth through financial inclusion trainings; drills on entrepreneurship; convening career counseling and placement stints with trainees; and striking partnerships with

relevant entities to enhance collaborative support, learning and sustainability.

### **USAID Kenya Youth Employment Support through Skills (K-YES)**

K-YES fosters partnerships between young people and the private sector to design and develop mutually beneficial vocational training for increased economic competitiveness and better jobs. The activity offers a fast-track to employment for youth (ages 18-35) who do not have a high school diploma. K-YES program objectives include improved technical and vocational skills training, targeted opportunities for entrepreneurship and increased access to financial services.

Since 2015, K-YES has offered to 173,342 youth access to youth financial services, market-relevant job and business skills. Herewith four cases bolstered by this program in participation with K-YES (youthpower website).

#### **Rose Luturian**

A garage in the edges of Bungoma town in Western Kenya is an apiary of action. Workers go about their business - assembling stuff, oiling engine parts, fixing tires; and so on.

Thirty years old Rose Luturian was supported by K-YES Program at the office for a three-month competency-based training and was later extended to an employment opportunity because of her exemplary performance.

In spite of dropping out of school and concentrating on her job as a housewife; she opted for the training - a move that baffled her family and friends.

Her energy and criticism from customers later won their regard. Word spread quicker in the community of a woman specialist exceeding expectations in a field ruled by men.

Her progress is a part of the Program's Behavior Change Communications Strategy that tries to demystify negative perceptions towards vocational training and blue collar jobs. The Program has empowered her to take advantage of her new found stature to motivate and inspire others.

Because of her enthusiasm the program office has seen 70% by and large increment in enlistment and 80% ascent of potential students of female sex looking to seek after the mechanical course.

#### ***Sheila Cherop***

Many couldn't accept she would contact her dream of a major venture back when she began off with 20 indigenous chickens, enthusiasm for the activity and an innovative attitude.

After four years, Sheila Cherop is an endeavor in herself. Similarly significant, she is changing lives in her West Pokot County in Kenya on account of her joint effort with USAID Kenya Youth Employment and Skills Program (K-YES).

She is a system-level mentor who has persuaded 50 social groups in her town centering on youth development. This was in the wake of encountering undertaking getting ready supported by K-YES Program in 2017.

With membership ranging 16 – 20 individuals and mostly youth, the groups convene meetings frequently to review progress and share experiences. All things considered, the young groups possess almost 5,000 birds – an accomplishment that produces salary makes prospects for other people and compliments other K-YES program mediations in the County bringing about 2,400 youth increasing new or better employment.

Further employment aptitudes training by the program have additionally empowered the groups to diversify their income sources by investing venturing in goat rearing and fruit farming. They have additionally shaped investment funds and advancing relationship for helpful access and treatment of credit.

As her chickens developed in number, she required materials to shield the young ones from gnawing cold. The expense of a cutting edge introvert was restrictive, so she designed a protective chamber akin to a traditional cook stove, made from locally available earthen material.

The apparently entertaining thought went to a money making adventure – it helped the development of her chicken from the underlying number to 500 and was later received by different groups in the town.

#### ***Sharon Chepkoech***

Hailing from a family of six, Sharon tried to be an architect. Her dream was anyway conceded when she dropped out of elementary school because of financial issues.

A mother of three and a proud author of a successful constriction company - Jemily

Constructions; she reviews how she used to embrace humble jobs at building destinations uninformed that the exertion would bit by bit lead to satisfaction of her youth dream.

Despite the fact that she buckled down and delighted in it, the absence of formal training frustrated her development. Like other young businessmen in the district, she earned less because of absence of formal capabilities.

Short competency-based training guided by K-YES in September 2017 was fastened in time. Aside from increasing fundamental learning and abilities on stone employment, she profited soft skills training, entrepreneurship drills; and information on financial access.

The bundle helped her rebrand and bundle her organization; made her more aggressive in her search for jobs; and rebuilt her focus as an employer for young people. Presently, 16 youngsters are on Jemily's payroll – two among them being women. The organization has likewise embraced successful ventures in the territory adding up to a great many shillings and as of late won the profound respect consideration through an honor to assemble a water tank in a foundation in the region.

### ***Benard Kabuu***

At the point when Benard Kabuu went to business training supported by K-YES, he only expected to learn how to manage his business.

The first born from a family of four had dropped out of school to help his family. He had attempted his turn in numerous things before discovering his specialty as a promising entrepreneur. As a beneficiary of the Coca Cola Company activity supporting youth by encouraging them to sell the organization's items, Kabuu yearned to expand his business.

In June 2016, K-YES led a three-day training in Nairobi, outfitting more than 30 youth with abilities for accounting, investment funds, customer relations, marketing and advertising registering businesses as formal entities, and raising capital through Village Savings and Loan Associations (VSLA).

He gathered similarly invested youth in his general vicinity after the preparation and shared shaping their own VSLA. He is right now the proud author and group pioneer of a 17-part VSLA situated in the

edges of Nairobi and is resolved to collect capital for their organizations. A loan from the group enabled him expand his business—in addition to his Coca Cola kiosk, he supplies water to a nearby garage and also has invested in raising chickens.

### **International Fund for Agricultural Development (IFAD) Youth Programmes**

African youth in rural areas continue to engage in farming, and the absolute numbers of rural youth participating in farming are expected to continue rising as the youth bulge occurs in the coming decades (Mabiso and Benfica, 2019). More than half the youth aged 18-24 years are in farming.

Most of the adolescents who are not in farming are in the non-farming agrifood framework (AFS). Investing in mechanisms and policy reforms that enable land rental markets to function efficiently is likely to result in improved access to land for rural youth and in turn lead to increased efficiency in general (Chamberlin and Ricker-Gilbert, 2016; Deininger et al., 2017). Improving access to land for rural youth would probably cut rural-urban migration that is caused by the push factor of lack of access to land (Kosec et al., 2017).

### ***IFAD interventions in Guinea.***

#### **Salya garden**

Established in 2018, the Salya garden is among 20 nurseries supported by IFAD and the National Program to Support Agricultural Value Chain Actors – Lower Guinea and Faranah extension (PNAFAA-LGF). The support in equipment, technologies and training are changing the lives of smallholder farmers and improving the food value chain crosswise over Guinea. The nurseries are supported by Farmer Field Schools (FFS) through which technical counselors give regular training sessions on agricultural techniques, business skills and group association.

To avoid food losses and waste, PNAFAA-LGF has engaged beneficiaries in food transformation activities, delivering training sessions on canning to 204 farmers – of which 173 are women – contributing to preserve vegetables for longer.

Saran Condé is a 30-year-old smallholder farmer in Guinea's Faranah district (Gravelli, 2019a). She has improved her cultivating aptitudes and expanded her profitability since joining the IFAD bolstered community garden in Salya town.

Because of IFAD's help, Saran presently relies on adequate fertilization, organized row planting, stronger fences to divert animal intrusions and increased access to water provided by a solar-powered system. She produces peppers, eggplants, and lettuces, making higher salaries to improve her family's business.

Saran has gotten support from her partners from makers' affiliation, Kankelen. It has 450 individuals, of which 350 are women, who employment in three nurseries.

#### Food processors of the Kankelen association

One can be awesome in cultivating or canning however incompetent in marketing. To fill this gap IFAD has provided marketing guidance to farmer associations across Guinea, fostering sustainable fair trade of agricultural products.

In Faranah, Food processors of the Kankelen affiliation have scaled up their deals and are being perceived by the nearby community, who consistently visits the storage facility where vegetables are canned. Shoppers can simply go in and buy what they need, dealing directly with the artisans at the atelier. As the word of mouth spreads fast, the business has expanded, and their cans and jars are also available in local fairs in the region Mamah Samoura is among 45 Farmers of the Kankelen affiliation who have gone to such training in Faranah. Because of the sessions, she has grown new abilities and now she produces vegetables, yet additionally forms 25 kinds of yields developed independently from anyone else and her accomplices, for example, tomatoes, peppers, onions, and eggplants. Vegetables that before were spoiled in a couple of days or weeks are keep going for even a half year inside glass containers.

Food processing can drastically reduce the waste of fresh ingredients as well as diversifies food use and consumption over year-round instead of just seasonally. It similarly reinforces smallholders' accounts given the additional value and time-successfulness of the procedure. For example, around two kilos of tomatoes, that would somehow or another be squandered, can be saved as tomato sauce and sold for three times the price.

IFAD's interests in Guinea likewise benefit the retailing division, for which young provincial entrepreneurs have gotten budgetary help to build up their own organizations. Aissatou Lamarana Bah is a multi-year-old undergrad understudy who

opened a small shop in Faranah that sells seeds and composts because of an IFAD advance. She routinely incomes it back and inside seven months will have paid it off.

As well as studying, Aissatou has gotten training on exchange and promoting. Her business is doing great and she begun to make a benefit in the initial three months, getting to be known for spearheading the main shop of its sort in Upper Guinea, selling in Faranah and even in Sierra Leone.

#### ***Programme d'Appui au Développement Agricole et à l'Entrepreneuriat Rural (PADAER),***

PADAER-I and II contribute to reducing poverty among the households in Kédougou, Kolda, Matam and Tambacounda regions by integrating them with profitable and diversified value chains (ifad.org site).

PADAER II (2016-2018) develops production and marketing of rice, maize, fonio and small ruminants, and helps improve poultry breeding.

The program invests also in infrastructure by improve hydro-agricultural systems, pastoral infrastructure and markets. It provides training to producers' organizations to enable them to provide sustainable services to their members.

Over 43,700 vulnerable rural households in Senegal will benefit from a US\$72.4 million.

In 1992, Khadim Thiam established a small workshop in Tambacounda, Senegal, to produce farming equipment, for example, hoes, seed drills, ploughs and animal-traction carts (Gravelli, 2019b). For quite a long while his business had just a couple of periodic customers. The workforce was limited to five employees who operated in an office excessively small and insufficient to extend. In 2014 Khadim gained new showcase opportunities through the PADAER program.

The program gave him specialized direction on financial related issues and business administration. Following this joined help, his incomes expanded, enabling him to reinvest benefits. Khadim expanded the size of this workshop to a small production line and fabricated a shed where laborers could manufacture more equipment. From that point forward, his staff has expanded almost multiple times, arriving at 24 employees, the greater part of whom are young and with permanent contracts.

The production has expanded in accordance with a significant interest for horticultural hardware in

Senegal and neighboring nations. Khadim's items are in numerous regions in Senegal and furthermore to Gambia, Mali and Mauritania. Khadim's equipment has a critical impact in the fields, improving the production that is generally made by hand. By providing many farmers, Khadim is in a roundabout way adding to the development of food production and profitability in the area, thus profiting farmers, their families and communities.

So as to grow his business, Khadim relies on his 26-year-old child Moussa and two other staff individuals who have taken an interest in an escalated training on metallurgical production, supported by IFAD and given by the Senegalese Institute of Agricultural Research (ISRA).

Over a time of a month, Moussa and his partners went to every day learning sessions held in Kedougou and Saint Louis. The course was conveyed to 26 for the most part young members. They got their certificates in February 2019 and are currently able to develop specifically machines that help decrease post-collect misfortunes and increment ranch incomes.

### **Boost Africa, AfDB and EIB**

Boost Africa, a joint initiative between AfDB and EIB launch in 2017, aims to create opportunities on the ground through enabling and enhancing entrepreneurship and innovation across Africa and creating new and quality jobs for young Africans (AFDB, 2017, 2019c).

The Investment Programme spans the whole venture segment, including seed funds, incubators, accelerators and follow-on funds. It is a partnership between EIB and AfDB, who will each commit up to €50 million. Third-party investors from the public and the private sector will be invited to co-invest. The focus is on sectors where innovations can improve quality of people's lives such as ICT, agribusiness, financial services, health, education and renewable energy

The E-Lab, a component of the Bank's 'Boost Africa' strategy, provides innovative young entrepreneurs with financing, technical assistance and broader ecosystem support through incubators, accelerators, fund managers and others. Five countries have been identified to pilot the E-Lab:

Côte d'Ivoire, Kenya, Ghana, Nigeria and South Africa.

The overall target size across the various components of the initiative is expected to be around €250 million, leveraging €1 billion in investments, supporting 1,500 SMEs, and creating 25,000 direct jobs and at least 70,000 indirect jobs. In 2019 the State Secretariat for Economic Affairs of the Government of the Swiss Confederation (SECO), joined the program and invest in it US\$ 3 million. Herewith some programs supported by Boost Africa:

- Botswana INTERNATIONAL HOUSING SOLUTIONS FUND II Urban development,
- Côte d'Ivoire OASIS AFRICA SME FUND Financial Services,
- Ethiopia LEASING AND LENDING FOR SMES,
- Ghana OASIS AFRICA SME FUND Financial Services Private
- Nigeria DEVELOPMENT BANK OF NIGERIA Financial Services Private 16.9 Regional - -ACP ACCESS MICROFINANCE,
- Regional - Africa AGRI-VIE FUND II Agriculture, fisheries, forestry

### **Challenge Fund for Youth Employment (CFYE), Netherlands**

The aim of the Challenge Fund for Youth Employment (CFYE) is to improve economic prospects for up to 200,000 young men and women in the Middle East, North Africa, Sahel, and Horn of Africa. Private sector, civil society and knowledge institutions can submit proposals geared to scalable solutions for creating more and better jobs and income generating opportunities for youth. The USD 171 million funds will run for at least seven years (2019-2025).

### **Towards Africa Agenda 2063, NEPAD**

NEPAD seeks to train 15,000 African youths/women along strategic agricultural value chains from 2017 to 2020. Target groups will include youth from rural areas, under-privileged background with specific focus on young women. NEPAD Agency will mobilize financial and technical resources from African Union, its member states, and partners such as GIZ, FAO and others.

## Youth Empowerment Project (YEP!)

The Gambia Youth Empowerment Project (YEP) addresses the economic root causes of irregular migration by supporting youth employment and entrepreneurship. The four-year project started in January 2017 and is funded by the European Union (EU) Emergency Trust Fund for Stability.

## UN Capital Development Fund (UNCDF)

Since 2010, UNCDF has been successfully attempting to build youth financial inclusion related incorporation by supporting the development of relevant and accessible financial products for youth combined with integral non-financial services in LDCs.

UNCDF tried its methodology by propelling YouthStart Pilot Program, which more than tripled the original target of providing Access to Finance (A2F) to 200,000 youth. UNCDF is currently growing this way to deal with LDC's in Africa and Asia with the target to build the quantity of youth (specifically girl, youth living in country territories and out-of-school) occupied with entrepreneurship, better than average employment, school, or further education and training.

In Benin, UNCDF is presently executing its Mobile Money for the Poor (MM4P) program, supporting and coordinating with banks, mobile network operators and regulators and controllers to help arrive at a huge number of as of now unbanked inhabitants (uncdf website).

UNCDF is also implementing its Local Climate Adaptive Living Facility (LoCAL) programme, enabling local governments to cope with the increased costs of building resilience to climate change and natural disasters.

The Finance for Food (F4F) activity puts resources into the foundation for improving food security in Benin and causes the legislature to make Food security a focal piece of nearby arranging and spending plans.

UNCDF present in Burkina Faso since 1981, is actualizing the Program d'Appui au financement adapté à l'Agriculture familiale (AgriFinance) to improve access to financial services explicitly adjusted to the requirements of small makers or entertainers of the significant value chain of rice, tomatoes, and cowpea. By encouraging access to

financial services adjusted to the necessities of partners in the three streams, the program is improving food security, self-employment of youngsters, and verifying income in country zones, particularly for women.

## Jobs for Youth in Africa (JfYA)

The African Development Bank (ADB) established in participation with the African Union Commission, the United Nations Economic Commission for Africa, and the International Labor Organization, the program Jobs for Youth in Africa (JfYA) to address the continent's childhood employment challenges.

The policy is to make 25 million jobs and impact on 50 million youth over 10 years utilizing three programs in agriculture, creating new rural micro-enterprises, equipping skilled youth to launch larger-scale agribusinesses, providing human capital for agro-industrialization and ICT.

ADB additionally gives spending support to approach change, for example, the Rwanda Skills, Employability, and Entrepreneurship Program, focused on reducing skills mismatches in the labor market.

During the main year of the JfYA methodology usage, 1.6 million operates were made and 652,000 individuals trained; the vast dominant part was women and youth (Adler 2017; reserveafricafund site).

## UN Youth-to-Youth Fund (Y2Y)

Y2Y Fund is a competitive award and capacity building scheme that empowers youth-drove non-profit organizations to steer and reproduce imaginative undertakings that make employment for youngsters by helping them established small scale ventures in specialty markets (UN, 2018). Since 2008, Y2Y has served more than 500 youth-drove organizations with direct grants or training and has connected with more than 3,000 youth. Assessment of the ventures demonstrates that 8 out of 10 young recipients are successfully set in self-employment or employment.

In West Africa, the Youth Employment Community (YEN), related to UNIDO actualized the Y2Y Fund in

Liberia, Cote d'Ivoire, Guinea, and Sierra Leone. In East Africa, YEN has banded together with UN-Habitat to convey joint educations for the grantees of the Youth-to-Youth Fund and the UN-Habitat Urban Youth Fund. In 2013, with help from the Canadian International Development Agency and the German Federal Ministry for Economic Cooperation and Development, YEN propelled the Y2Y Fund in Morocco and Togo.

To decrease youth joblessness in Central Africa by structure young graduate's abilities to look for employment, the Sub-Regional Office for Central Africa of UNECA established an electronic-employment venture utilizing the web and other ICT offices in urban Congo in Brazzaville, Pointe Noire. UNECA additionally established a knowledge platform to share its employment and best rehearses on social policies including youth issues. Youngsters and policy makers utilized the platform to encourage peer learning, information sharing and knowledge creation among ten nations including Uganda, Kenya, Zambia, Egypt, the Gambia, Ghana, Mauritius, Nigeria, Ethiopia and Zimbabwe on how their nations were tending to youth joblessness issues.

### **Southern Africa Innovation Support (SAIS)**

SAIS was initiated in 2011 to generate regional innovation cooperation in the Southern African Development Community (SADC) region ([saisprogramme site](http://saisprogramme site)).

The first phase of SAIS (2011- 2015) funded projects initiating new models supporting innovation.

The second phase, SAIS 2, (2017-2023), started in June 2017, places special emphasis on youth and innovative entrepreneurship through three result areas: Institutional development for regional innovation cooperation, Innovation in enterprises and Inclusive innovation.

SAIS 2 is managed by the Programme Management Office (PMO), based in Windhoek, Namibia and executed in Zambia, Botswana, Namibia, South Africa, and Tanzania.

One of the initiatives is ITTHYNK Smart Solutions and Apps and Girls which have developed a 12-month Skills Development Programme "SDP" to train 30 unemployed ICT graduates from South Africa and Tanzania. Graduates receive 4 months training on Microsoft Technologies such as Azure

and will become Microsoft Certified Solution Developers. At the end of the programme, at least 50% of the graduates should find employment opportunities within ITTHYNK/Apps and Girls or with partner companies and clients. It is expected that 50% of the graduates will build and operate their own startups after the programme.

### **SCALE2 project**

SCALE2 is a venture subsidized by the Dutch government through the Directorate-General for International Cooperation (DGIS, The Netherlands) stage 1 from June 2012 to May 2017. The undertaking is being controlled by a consortium of three organizations: International Fertilizer Development Center, International Center for Development Oriented Research in Agriculture (ICRA) and Base of the Pyramid (BoP).

BoP Innovation Center is an autonomous foundation and was established by a consortium of accomplices, to make a one-stop search for organizations, financial businessmen and consultants with a reasonable enthusiasm for comprehensive employment.

SCALE2 builds up a policy of agriculture groups in nine targeted nations in sub-Saharan Africa (Benin, Ghana, Mali, Nigeria, Ethiopia, Kenya, Mozambique, South Sudan, and Uganda). These clusters are defined as a partnership at the local level among actors that share a common ambition to build profitable commodity-based value chains. The agribusiness cluster approach is designed to help rural smallholders move from subsistence farming to farming as a business.

In March 2014 BoPInc contacted Heineken International B.V. As an important purchaser of crops and a maker and brewer in Africa, Heineken assumes a significant job in the economic strengthening of a huge number of farmers, their families, and their communities. The organization centres to source 60 percent of its data sources locally by 2020.

In Nigeria, this objective is grasped by its backup, Nigerian Breweries (NB), the biggest fermenting organization in Nigeria that employment sectors surely understood brands of lagers, malt beverages, and minerals. NB is keen on the local obtainment of cassava-based sources of info. NB distinguished Psaltry, a local cassava processor, as a provider of top-notch cassava starch.

SCALE2 has trained 976 farmers containing 730 male and 246 female ashore use the board, Integrated Soil Fertility Management, Mechanization. The organization obtained an automated grower for pilot and the potential changes have been clear and they incorporate potential decrease of the expense of planting, better practicality, diminished drudgery and expanded plant populace target which will mean more income for the farmers.

The partnership has trained 10 extension/field officers as mentors who thus are building the capacity of the farmers. An hectare in each cluster is used as a learning plot to see the response to transporters are integrated to be part of the value chain where stickers were introduced to them to be identified as Psaltry Transporters and this has reduced the cost of transportation by 20%.

The total spending plan for the following stage SCALE2 from January (2019-2023) is €100 million, including €50 million as an open award from the Netherlands' Ministry of Foreign Affairs, and (at least) €50 million money related commitments from private on-monitor characters engaged with the organizations developed under (bopinc website). The objective is to arrive at 750,000 smallholder farmers and 5,000 private organizations in Burkina Faso, Ethiopia, Kenya, Mali, Niger and Nigeria as need nations, and Ivory Coast and Ghana as program nations with a more limited scope of activities, concentrated generally on cross-outskirt exchange with the Sahel area.

SCALE, opens public-private partnerships (PPPs) as the core implementation modality to achieve the objectives of the program. SCALE2 established 60 of these PPPs, which prompt the help to 750,000 farmers (min half women and 40% youth) and 5,000 micro-small-and medium enterprises, ultimately reaching one million African low-income consumers.

### **"Smart" Adaptive Sustainable Agriculture**

Smart is a private public partnership between Dutch agriculture organizations composed through Greenport Holland International, Wageningen UR, TNO, BoPInc and the nearby organizations Klein Karoo, Jomajoco (South-Africa) and Rwanda Best Company (Rwanda).

The undertaking means to present agriculture innovations that are reasonable for and adjusted to

the circumstance of small scale farmers in South-Africa and Rwanda. Besides, Smart proposes customized store community upgrades for instance for transportation and dissemination, training and packaging so as to limit misfortunes.

Sustainable development of the horticultural sector is important to realize food security, reduce poverty and protect the environment. Most smallholder farmers come up short on the required assets. BoP Innovation Center is responsible for knowledge management and dissemination, as well as for the analysis of the local logistics including processing, packaging and transportation.

### **The West Africa Food Markets (WAFM), UK AID / DFID**

WAFM Program is financed by UKaid. The project underpins organizations to dispatch creative endeavors that expansion production, processing and advertising of staple yields through the cross-outskirt exchange.

WAFM tries to expand the accessibility of staple foods and buying intensity of farmers in food uncertain locales of the Sahel just as increment the strength to craving and ailing health during their hungry seasons and intermittent stuns.

Kedan Limited, agriculture operating in Tumu in the Upper West Region of Ghana, has introduced a 7000 metric tons for every annum maize industrial facility that produces maize flour, strengthened maize flour, maize cornmeal and maize wheat for nearby and West African provincial markets (westafricafoodmarket site).

Kedan Limited, established in 2014, began as a rural production, commodity aggregation and trading business. With time the company has wandered into processing and now underpins more than 1,500 smallholder farmers in Northern Ghana with farm inputs, tractor services, training and expansion services to build the volumes of crude maize delivered. At the full activity, the manufacturing plant will give more than 50 direct jobs and furthermore give more than 50 part time jobs as well.

The cooperation will profit more than 2000 smallholder maize farmers as the manufacturing plant will likewise fill in as a trained, solid and manageable market hotspot for the maize.

## ENABLE Youth Sudan

ENABLE Youth Sudan is based on the IITA Youth Agripreneurs model which began in Nigeria in 2012 and has since been steered in a few African nations. The International Institute of Tropical Agriculture (IITA) is a non-profit organization specialized on agricultural developments improving the living environments in Nigeria and other 15 SSA nations by creating jobs (iita website).

The AfDB Board endorsed the ENABLE Youth program in 2016 with total expense assessed at US \$32.3 million. The AfDB is contributing 90.1% of the undertaking cost, while the Government of Sudan is contributing the staying 9.9%. The program target is to make business opportunities and relevant employment for young women and men along need farming value chains. It is actualized in nine Youth Agriculture Incubation Centers (YABICs) in five states. The program is relied upon to train around 2,000 "Agripreneurs", half are women. Every one of these Agripreneurs is required to utilize five other support workers, generating about 12, 000 direct jobs (6,000 of them for women) in the first five years. The ENABLE Youth is a loan facility to help youth to build up their abilities and capacities, plan, launch and manage agribusinesses.

FAO attempts the capacities and involvement of women and youth in agri-food value chains to promote their economic empowerment (FAO, 2018).

A part of the initiatives bolster a few individual entrepreneurs in space, for example, the orange maize in Ghana and soybean seed framework in Malawi.

## Orange maize, Ghana

Orange-fleshed maize was developed by a group of researchers from CSIR-CRI and proposed to local producers at Amanase close Suhum in the Eastern area of Ghana that is making cultivating more gainful for their family (IITA, 2017).

These new varieties were accepted by the farmers since they could develop in 110 days rather than 130 days, had adequate levels of vitamin A for improved health and food, and they had resistance for every one of the burdens that influence the local variety. Moreover, the new varieties likewise had a yield capability of up to 3 t/ha—multiple times the yields recently acquired from their fields.

The new varieties likewise offered 10-20% more expensive rate over the white varieties.

Food items from orange maize were sticky, so there was no compelling reason to include cassava batter in getting ready local food, along these lines setting aside some money. Orange maize and its items are dynamically spreading all through Ghana and this could be seen on the roadside—bubbled and broiled or in Banku, Kenkey, and Tuosafi.

Notwithstanding the achievement of the new varieties in Amanase, most poultry farmers in Kumasi, Ejura, Kofinase, Nkoranza, and Sunyani where the orange maize has been presented have said that the adequate levels of pro-vitamin A have led to an improvement in the health conditions of their birds. They have additionally communicated trust in the varieties' capacity to improve the shade of egg yolk and furthermore increment egg production.

## Soybean seed framework, Malawi

In Malawi, soybean is the soul of thousands of smallholder farmers (IITA, 2015). Current production levels are low, averaging under 1 t/ha. Farmers have constrained access to better varieties. The Malawi Improved Seed Systems and Technologies (MISST) project is driven by IITA and upheld by USAID's Feed-the-Future Initiative. MISST is making excellent seeds of three improved varieties (Tikolore, Nasoko, and Makwacha) increasingly accessible and available. The undertaking is operating through help for seed production, expanding selection through variety promotion, capacity building, reinforcing of seed partnerships, and by utilizing public-private cooperation for seed production, distribution, and marketing.

The project has trained more than 1279 community-based seed makers, 735 men, and 544 women, bolstered them with essential seeds and encouraged their enrollment with the Seed Service Unit as affirmed seed makers. These farmers are as of now delivering guaranteed seeds of the three improved varieties being demonstrated by the project on 485 ha over the 7 districts.

## CHAPTRÉ IV

### Governments and NGOs support to Entrepreneurship

#### Government support

##### ***Sustainable Agriculture Community Development Programme (SACDEP), Kenya***

SACDEP began the venture during the period 2011 – 2014 in Kilifi County of the Coast Province in Kenya (sacdep site; FAO, 2015). The general undertaking objective was to make employment and sustainable salary for youth in the four districts by taking benefit of the tourism industry using agribusiness skills, through the adoption of small livestock production, value addition and marketing. In the wake of training youngsters on the most proficient method to act naturally dependent, 353 adolescents are as of now attempted value expansion activities with organic products, nuts, and small domesticated animals raising (chickens and bunnies) as a wellspring of salary. The items are offered to the close-by grocery stores and inns in the area.

Key accomplishments include:

- Nine small bungalow ventures have been established training coconuts, cashew nuts, mangoes, and pineapples
- Value-included costs are 65 percent higher than for the fundamental wares
- 212 youth are completely utilized in the agri-area
- In the three years of the venture's usage, the young people have made a benefit of US\$47 834 from their deals.

Some part of the assets developed is furrowed once more into the group as savings for future ventures. The aggregate sum of assets spared to date is over US\$15 591. From the investment funds, the young have started a reserve fund and credit scheme.

##### ***Kenya Youth Employment and Opportunities Project (KYEOP)***

The KYEOP project is of the Government of Kenya financed by World Bank for throughout the following four years centering on youth aged between 18-29 years, without jobs and have encountered expanded spells of joblessness or who

are as of now operating in defenseless operates (careerpoint-policies website).

KYEOP venture enrolled achievement where 80% of the adolescent trained landed position situations. 70000 youth have been trained in specialized abilities through NITA and 280000 youth on employment aptitudes through the service of youth. KYEOP intends to arrive at 280,000 youth in Kenya.

##### ***Skills Development and Job Creation, Edo State Nigeria***

This program makes operates for jobless youth and women in Edo State, Nigeria by giving entrepreneurship training and startup incubation, ICT abilities training and advisory services.

The Edo Food and Agricultural Cluster bring the different parts of the Agri value chain to the farming communities. Edo Production Centres provide factory space, 24 hour power supply and access to financing. The program targets 220,000 Jobs by 2020.

##### ***Young Executive Employment Growth Program (YEBGP)***

The primary goal of the YEBGP is to give Advisory services to 1,220 youth and Micro Small and Medium Entrepreneurship (MSMEs) throughout five years the objective is planned for training and supporting the young in five metropolitan zones across the country: Accra, Kumasi, Sekondi Takoradi, Ashaiman and Tema. The ideal outcome is expected to furnish the recipients with access to nearby and international opportunities.

YEBGP requires contain age section and educational level. The adolescent needs to fall inside the age run seventeen to twenty-four years (17-24), holding fundamental level education authentication with total 30 or better (read and write), with active participation in youth and community activities, must be a start-up business owner/part owner, with comprehensive business plans and should be a certified entrepreneurial skills developer to help indicate their specific areas of interest.

##### ***The Farmers Forum for Trade and Social Justice (FAFOTRAJ), Malawi***

FAFOTRAJ was made with the point of helping women and youngsters to established agribusinesses and combine to build their dealing

force and tap new markets. FAFOTRAJ's Malawi Agriculture Youth Program (MAYOP)

MAYOP was aimed to integrate and build capacity of youth aged between 18-35 in agribusiness to create wealth and self-employment for their sustainable livelihood. It targeted 5000 youth in Zomba ( Malosa and Likangala), Thyolo ( Dwale and Matapwata) and Lilongwe in Chiyamba. Among the activities, the programme provided; trainings and mentorship in entrepreneurship, business linkages facilitation, advocacy and lobbying for an enabling business environment.

MAYOP has helped several youngsters to begin producing and marketing raw commodities, for example, soya, groundnuts, beans and rice, just as value included items, for example, cooking oil, soya milk, jam and rice flour.

The legislatures of Botswana, Ghana and Kenya have now asked FAFOTRAJ to repeat this inventive model in their countries. MAYOP offers training in reasonable undertaking development and the executives, so youngsters can establish their own agriculture ventures. Somewhere in the range of 2010 and 2011, the program trained 3 380 youngsters and established 75 youth agro-undertakings. Feasible policies include scaling up the activity to the national level with the goal that it comes to at any rate 1 million young people.

In Thyolo locale's Juma town, Juma Youth Investment is one agriculture that has profited by the FAFOTRAJ youth program. Established in 2011 by 15 young farmers, it centers on the pig raising value chain. The thought developed after individuals did a feasibility study which uncovered a solid interest for pork and particularly wieners, in adjacent towns.

The group began off with two pigs, purchased from individuals' commitments. As the creatures redevelop, their descendants are shared. The following stage will be to purchase a processing machine to make hotdogs.

Matapwata, a 35-part employment group has been established to deliver, purchase and process tomatoes into jams, sauces and squeeze, utilizing essential family unit hardware.

Peace Child International (PCI) is a UK NGO upheld by UN online volunteers (onlinevolunteering site). PCI has established BTCA employment development bolster approach, which coordinates training, financing and tutoring to enable helpless youngsters to begin, oversee and develop their own businesses, making jobs for themselves as well as other people and emphatically adding to economic development and poverty reduction.

During 2017, PCI has demonstrated that very much structured picture-based training philosophies can successfully reach and construct abilities of probably the least fortunate and most underestimated young women, expanding the difference and changing the manner in which employment is conveyed. The preparation is based around an image or game inside which various segments are utilized to develop understanding. The coach guides participants to take a gander at the various segments individually and afterward established them together to represent the idea or the thought behind the pictures. When the idea is comprehended the coach can lead an exchange about applying that idea into their regular day to day existences dealing with a business. This develops deeper comprehension business opportunities. Additionally its integrate digital solutions to target illiterate entrepreneurs in West Africa.

The BTCA was successfully guided in Kenya. In 2012 PCI established a venture plan for the BTCA West Africa venture. Funding was secured from NORAD and activities launched in 2013.

In Guinea, it targets young women in the capital Conakry who are filling in as meandering venders, regularly getting the stock to sell using a credit card and scarcely turning a benefit.

In Sierra Leone, it operates in a provincial zone with uneducated women from poor families who have a few resources, for example, dairy animals and land. Trainees are taught strategies to tackle the market/economic, political/legal, environmental, technological, managerial and social/cultural aspects that every business faces.

The BTCA bolsters youngsters to break down various locally accessible choices for subsidizing their employment, be local micro-finance

## NGOs support

### ***Be The Change Academy (BTCA)***

institutions, nearby sparing groups, their own savings or acquiring from family.

In 2017 PCI began development of the new Ishango Android application planned for improving the business management for uneducated and semi-educated entrepreneurs who struggle to keep dedicated accurate written business records. In October 2017, a partnership was secured with the Computer Science Department of University College London (UCL). An underlying model is being built using smartphones, such as voice recording, cameras and text-to-voice. The Program Development Manager and Technical Advisor were trained in User Experience and User Research by Akendi, a leadership application development organization situated in Cambridge.

### ***Affirmative Finance Action for Women in Africa (AFAWA)***

With the Women Entrepreneurs Finance Initiative (We-Fi) funding, AFAWA intends to improve access to finance for 40,000 women-owned/led small and medium enterprises in 21 African countries, mainly in low-income and fragile countries, where women entrepreneurs face greater challenges in accessing finance, markets, knowledge, and mentoring programs (AFDB, 2019a). The program's activities is implemented in Botswana, Burundi, Chad, Comoros, Côte d'Ivoire, Democratic Republic of Congo, Ethiopia, Kenya, Mali, Mauritania, Mozambique, Niger, Nigeria, Senegal, Sierra Leone, South Africa, Tanzania, Tunisia, Uganda, Zambia, and Zimbabwe.

### ***U-LEARN II ("Learn, Earn, and Save") Uganda – Tanzania, Swiss Foundation for Technical Cooperation and Mastercard***

U-Learn Phase II is a five-year programme (2016-21) implemented in Tanzania and Uganda in partnership with the Mastercard Foundation. It builds on U-Learn Phase I (2011-16), which was part of the Foundation's 'Learn, Earn and Save' initiative. U-LEARN II is improving prospects for young women and men with limited education and abilities through employment showcase pertinent aptitudes education. There is a solid spotlight on supporting young entrepreneurs in the informal sector through abilities development, market linkages, and access to financial services, youth employment affiliations, and mentorship.

The programs helps build local trade based youth business associations to facilitate peer-to-peer learning. On the fund side, it enables youth to frame youth investment funds groups and gives provides financial literacy training

The objective is to raise 15 000 young women and men out of neediness in Uganda and Tanzania, by expanding their aggressiveness in the activity market and improving their self-business opportunities (issuu site).

The goal is youth (18-24) from families at or underneath the all-inclusive poverty line. Of the 7,500 beneficiaries, half are youngsters, in any occasion 20% of whom will be young mothers. It operates across more than 11 region in Uganda, around 70% rural/30% peri-urban or urban. The goal is to raise 7,500 youths people sustainably out of poverty. Improved employment and small scale venture opportunities will be available to 5,500 youngsters and men, and 2,000 additional young entrepreneurs will be supported to grow their small businesses.

Through the business partnership, KK Fresh Produce Exporters Ltd is operating with in excess of 1600 youth in nine selected districts of Wakiso, Jinja, Masaka, Luwero, Kiboga, Kibaale, Kakumiro, Masindi, Hoima and Bundibugyo in central and mid-western Uganda.

These are sorted out in self-chose learning groups of 15-25 youngsters dependent on area, and undertakings. The youngsters connected with are somewhere in the range of 18 and 24 years of age, 30% females and from families beneath the poverty line. Greater part of the young doesn't possess land yet can access land for production. The majority of the adolescent gets to arrive from their families and other employing from land proprietors at normal expense of \$ 80 for every section of land every year.

The contract farming arrangement with KK Fresh Produce Exporters Ltd provides an entry point for the youth to engage land owners to hire land on a contract basis where the youth pay after harvest.

A few organizations in communities, for example, schools, houses of worship and local governments have additionally given gainful land to the adolescent for production. As youth gaining increment through production, they put resources into land securing to extend and support the employment. The target of U-Learn 2 is to bring 7,500 youngsters up in Uganda and 7,500

youngsters in Tanzania. The outcomes are as per the following: an inclusive supply chain of 1284 acres of land under production with 1600 youth contributing to 55% of KK's business.

80 youth groups marked contract cultivating with KK Fresh Produce Exporters Ltd

512 young farmers have collected and developed an income from USD 500 to USD100 every month. In the first month of collect, 91 tons were sent out by 713 youth from September to December 2017.

#### ***Pan-African Youth Entrepreneur Development (PAYED)***

Launched in October 2017, PAYED program provides training and tailored advisory support 600 young entrepreneurs in Kenya, Nigeria, and Côte d'Ivoire to develop opportunities in the micro-retail sector (technoserve payed website).

TechnoServe and Citi Foundation are partnering to scale up shops to become more profitable by connecting entrepreneurs with the knowledge, training, and tools they need to become successful retailers. The one-year program targets young entrepreneurs who are owners, managers, or employees of existing shops, while also piloting activities to help motivated youth launch new micro-retail enterprises.

#### ***Pan-African Youth Entrepreneur Development (INCOMEED)***

Propelled in October 2017, INCOMEED program gives training and custom-fitted warning help 600 young entrepreneurs in Kenya, Nigeria, and Côte d'Ivoire to develop opportunities in the small scale retail division (technoserve incomeed website).

TechnoServe and Citi Foundation are joining forces to scale up shops to turn out to be increasingly gainful by interfacing entrepreneurs with the learning, training, and apparatuses they have to wind up successful retailers. The one-year program targets young entrepreneurs who are proprietors, directors, or employees of existing shops.

#### ***The Redeemed Christian Church of God (RCCG)***

RCCG is the biggest Christian religious movement in Nigeria. It has more than 2,000 parishes in Nigeria and is available in more than 70 nations. The RCCG is significant employment and supplier of abilities training, particularly for youngsters. Youth fill in as ministers, volunteers and employees in the RCCG's areas and financial endeavors, for example, radio

and TV slot, banks and instructive foundations. In affirmation of youth comprising most of RCCG individuals, the National Youth Affairs (NYA) unit was established to plan, oversee and arrange youth-related exercises. Through the NYA, the RCCG runs aptitudes training programs in website design, photography, video editing, baking, fish farming, computer and mobile phones repairs, paint making and project management (The Guardian, 31 May 2015).

#### ***The Muslim Students Society of Nigeria (MSSN)***

MSSN caters for the otherworldly needs of young Muslims in and outside of instructive foundations crosswise over Nigeria. It is a youth-owned and youth-led organization and its development in the course of the most recent 30 years changed it to the biggest youth development in Nigeria. The MSSN has branches over Nigeria's 36 states and is evaluated to have a large number of individuals (Namadi, 2015).

New religious developments assume an expanding job in controlling assets and producing new financial prospects outside of the state by giving psychological aptitudes training, vocation and marriage mentoring, healthcare social networking, bursary awards, loan and micro-credit facilities and building and linking professional networks across and outside of Africa (Gifford, 1998).

#### ***Young Professionals for Agricultural Development (YPARD)***

YPARD tested four types of mentoring programs during the pilot phase to determine the most suitable format to scale up (ypard website).

##### **Personal tutoring**

This undertaking furnishes YPARD members in Kenya with help and direction to understand their potential by running eye to eye workshops, giving continuous education and meeting guides for in any event two hours every month either by telephone or up close and personal. The justification is support for young rural experts will prompt development, community and social change and thusly maintainable rural development.

##### **Online mentoring for women in agribusiness**

The Mentoring Program consolidates coaching with innovation to offer cross-outskirt support to YPARD

women entrepreneurs from 10 distinct nations. Utilizing a bespoke online stage, the entrepreneurs go through a year operating one-on-one with their guide to constructing their certainty, build up their employment and advanced proficiency aptitudes, and accomplish key business objectives.

#### Global conference mentoring

This undertaking looks to enable youth to take benefit of meetings, by blending youth delegates with senior representatives going to the Global Landscapes Forum and urging them to encourage organizing and go to group sessions together. A subgroup of these sets was chosen to remain basically associated for a year following the group. The hypothesis supporting this methodology is that the underlying eye to eye meeting among mentees and guides is critical and will continue a virtual relationship.

#### Peer mentoring and coaching

This project looks to help young entrepreneurs to actualize creative thoughts for agrarian development, as a component of the tutoring and instructing arm of the Young Agripreneurs Project (YAP). Six agripreneurs have gotten US\$5000 in seed subsidizing and a year of tutoring and instructing to enable them to actualize thoughts, such as organic pest management device to a self-sustaining greenhouse.

#### ***SOS Children's Villages YouthCan!***

YouthCan! is an international organization that supports hindered youngsters to successfully deal with the change from school to free adulthood. The danger of employment market and social rejection is particularly high for youngsters in danger of losing parental consideration or who have officially lost it. By training representatives, enacting their systems and giving mastery corporates are having a quantifiable difference in the lives of youngsters around the world while successfully attempting to decrease youth joblessness. YouthCan! of SOS Children's Villages offers a computerized platform through which youngsters and guides can interface, make systems and bolster one another.

The primary partners are Johnson and Johnson Corporate Citizenship Trust, Thyssenkrupp Elevator AG and Allianz SE

During 2018 YouthCan! connected with 5,060 youngsters in 25 distinct nations, similarly

supporting young men and young women. 1,300 corporate volunteers molded and encouraged educations, presentation to the employment place and went about as guides to youngsters in both on the web and up close and personal groups (sos-childrenvillages site). Herewith two cases upheld by the organization.

#### Wading through the waters, Susana from Liberia

Susana used to fill in as a dealer. She would purchase products on layaway, sell them at the market, and income back her advance. Her desires were high; however she attempted to adjust thinking about her family and restoring the money to merchants on schedule.

The SOS group prompts her on the most proficient method to deal with her youngsters and to deal with her business selling packs of nuts. SOS group acquainted her with the village savings associations Susana comprehended that she can set aside money and accommodates her family simultaneously.

#### A song of thanks. Tumi from Lesotho

Tumi's parents separated when she was six years old, leaving her unemployed mother alone to care for Tumi and her five siblings. Her mom became sick with HIV/AIDS and died a year later. She and her kin attempted to get by for a while until her granddad cautioned SOS Children's Villages in Maseru. In her employment with road youngsters and tutoring hindered youth, Tumi has discovered it freeing to address youngsters from comparable foundations. Subsequent to learning at the SOS-Hermann Gmeiner International College in Ghana, Tumi earned a degree business administration from Ashesi University, likewise in Ghana. She currently plans to study psychology and continue with her music.

Tumi as of late inspired toward becoming Program Coordinator for GoTeach – a young employability organization between SOS Children's Villages and Deutsche Post DHL Group – in Sub-Saharan Africa.

#### Data-driven skills, Blossom Academy

Blossom Academy achieves transformational results through a live, partner based learning the background. The abilities based educational program is planned in a joint effort with industry partners and pedagogically is intelligent of genuine experience (blossomacademy site). Students will

probably apply logical knowledge and will likewise get instructing in critical soft skills. Most of this experience is conveyed virtually, which empowers Blossom Academy to use innovation for quick, accurate fellow assessments. This half-year program is planned for youth from West Africa - beginning from Ghana.

#### ***The African Cassava Agronomy Initiative (ACAI) and PIL***

ACAI is a venture which is driven by the International Institute of Tropical Agriculture with the support of Bill and Melinda Gate foundation with designs to improve the employment and income of cassava farmers of Nigeria, Ghana, Tanzania, Uganda, and DRC by exploring and taking benefit of best agronomic practices.

It explicitly centers around improved cassava yields, cassava root quality, cassava supply to the training division and cassava deals in this way captivating more than 100,000 family units in Nigeria and Tanzania and encouraging the commitment of in any event 30% women Farmers .

Psaltry partners ACAI in building up a device 'use case' of high starch substance and amazing planting to improve the efficiency and gainfulness of cassava in Nigeria utilizing their current structures of dispersal.

## CHAPITRE V

# Businessmen and MNCs Entrepreneurship Programmes

## Businessmen initiatives

### ***Tony Elumelu, Nigeria***

Tony Elumelu, a Nigerian billionaire banker, is the leader of the United Bank for Africa (UBA), one of the most dominant banks in Africa. Tony Elumelu Foundation (TEF) Entrepreneurship program propelled in 2015, a 100m USD program more than 10 years to recognize, train, mentor and finance 10,000 entrepreneurs (afd.fr website).

The Agence Francaise de Developpement (AFD) signed a Memorandum of Understanding with the TEF foundation to advance young entrepreneurship in Africa. The understanding concerns both certifications for credits designated to the start-ups upheld by the foundation and a joint knowledge production program on young Entrepreneurship. It likewise advances the sponsorship component driven by the foundation.

The African Development Bank (AfDB) and the Tony Elumelu Foundation likewise have signed in March 2019 a Letter of Intent to quicken youth Entrepreneurship crosswise over Africa. 3,050, young entrepreneurs crosswise over 54 African nations throughout the following year would get support under this organization (faapa website).

In 2019, the foundation got an aggregate of 215,000 entries from African entrepreneurs, up from 151,000 applications a year ago, with female representation from 62,000 out of 2008 to 90,000 out of 2019. Herewith two of the bolstered entrepreneurs.

### **Joycee Awosika, Nigeria**

Joycee Awosika is the CEO of ORÍKÌ, a luxury skincare brand that breakers normal fixings and logical research to make individual consideration items (orikigroup website). ORÍKÌ contains a scope of healthy skin items solely sourced on the continent and made in Nigeria. With a physical store in Lagos, Nigeria which boasts of a distinctive mix of offerings including the product showroom, a luxury spa home, skin consultations, a presence in the duty-free shops of major

airports, outlets across Africa, a thriving ecommerce site and distribution network around the world.

### **Mavis Nduchwa, Botswana**

Born on a farm in rural Francistown in Eastern Botswana, close to the outskirt of Zimbabwe, Mavis Nduchwa detected that reasonable, privately delivered food and poultry will be a decent substitute for the costly imported items. She collaborated with her significant other Brighton Chabana to establish the Botswana Chabana Farms in 2011. Mavis set out to take care of the issues of absence of jobs for women and youth, lack of food, for example, vegetables and meat items, individuals making a trip far to get fundamental wares. Setting up an all integrated farm - cows, goats, jackasses, poultry, piggery, vegetables, and horticulture with a dream to providing food as well as to empower people in the community. After six years, Chabana Farms has turned into a successful agriculture undertaking.

Chabana Farms currently possesses 247 acres of land, and grows grains and vegetables, for example, lablab (a vegetable that produces brilliant rummage for domesticated animals), maize, sunflower, sorghum, beans, and groundnuts. Past its everyday programs, the farm, which utilizes 10 full-time staff, additionally gives a month and a half's preparation in dealing with poultry employment for jobless single parents.

### **Summy Francis, Nigeria**

Summy Francis from Lagos, Nigeria, is the president and founder of Africa's Young Entrepreneurs (ayeonline website). He is overseeing Mullard Hotel, a privately-run company. He stepped up and bolsters young entrepreneurs by making Africa's Young Entrepreneurs (A.Y.E) which is devoted to building up the up and coming age of African entrepreneurs.

A.Y.E join enable young entrepreneurs in Africa to arrange socially and financially, in this way building up new entrepreneurs. Herewith four of the upheld entrepreneurs.

### **James Paterson and Benji Meltzer, Aerobotics**

James Paterson and Benji Meltzer from South Africa established Aerobotics, an organization had some expertise in mapping utilizing satellite and drone (Lourie, 2019). Aerobotics monitor crops and caution farmers about potential dangers, scouts.

Farmers can get precise measurements for orchards with each drone flight, including tree health, tree tallies, and individual tree size and covering territory.

Aerobotics' product, Aeroview, permits tree-crop farmers to recognize early-stage problems in their plantations. Utilized related to the Aerobotics' Aeroview Scout App on their cell phone, farmers can find problems on a tree-by-tree basis.

The company right now has two development directors in the US and is operating with 10 000 acres of crops.

#### DataProphet

DataProphet was shaped in 2014 by Town, Frans Cronje and Daniel Schwartzkopff from South Africa so as to build up a framework explicitly for assembling, that would identify deformities and scrap in the assembling procedure, save money on waste, and increment yields (Jackson, 2019).

DataProphet is an AI startup that decreases the risks in assembling by examining knowledge in industrial facility. The system called Omni, consistently takes a shot at top of existing stages and assembling environments. DataProphet is being utilized by an enormous assortment of customers, from foundries to vehicle makers, for example, Mercedes-Benz and BMW.

#### Abu Addae, LifeCheq

LifeCheq is making financial advice by moving personal financial advice from a biased, commission-based advisor to a subscription service that gives users access to a team of actuaries and experts (lifecheq site). Abu Addae, the founder is an actuarial scientist shaking up the industry by providing legitimate, non-biased financial advice at an accessible rate.

#### Riaan Conradie, LifeQ

LifeQ is a world-driving science and innovation organization that intends to empower individuals from varying backgrounds to appreciate ideal health. Riaan Conradie, from South Africa, has made significant walks into international markets with its custom-fitted health policies. Customers profit by exact and quick health data, sickness counteractive action and the executive's programs and increasingly reasonable and custom-made life and medical coverage items (pitchbook.com site)

The organization joins abilities from different controls including biomedical building, frameworks

science, frameworks designing, software engineering, advanced sign training, AI, and that's only the tip of the iceberg, helping protection, care supplier, corporate health or pharmaceutical parts see how our physiology, life structures, conduct, and our environment connect and better see how people employment.

Stellenbosch-based HealthQ Technologies (HealthQ) performs testing, approval, and industrialization of LifeQ's innovation with Good Clinical Practice (GCP) accreditation, and persistently guarantees that it's testing office and managers satisfy the vital guidelines to guarantee the health of people taking an interest in studies (4dicapital site). 83 full-time employees and 10 contractual employees with skill crossing life sciences, electronics, advanced sign training, and programming building, scientific measurements, is successfully growing to meet the development, dispatch, and post-dispatch bolster needs of LifeQ's first commercial pilot in the close future.

#### Chido Govera, Zimbabwe

Growing up as orphan, Chido Govera needed to fight for herself when she was just 7 and later was manhandled by a nearby relative when she was 8 (africa.com site). On account of her staggering background, she vowed to ensure the privileges of all vagrants when she grew up. Chido Govera is today a farmer, campaigner, and educator who have changed existences of a great many Africans through mushroom cultivating.

Utilizing her foundation, she has successfully trained 1,000 individuals on mushroom cultivating in Zimbabwe, South Africa, Tanzania, Democratic Republic of Congo, Ghana, and Cameroon. Her endeavors have additionally profited communities past Africa, for example, India, Australia Aboriginals, Europe, and the United States.

The originator of the Future of Hope Foundation and a pioneer in changing over espresso residues into mushrooms, Govera plans to end neediness by feasible food. The improved strategy for supportable development of mushrooms gives food security by changing over natural waste into food, rousing individuals in different social classes, particularly women, to accept entrepreneurship prospects in different parts of the world and to build up their capabilities.

#### Jamilla Abass, Kenya

Abass proceeded to think about Computer Software Engineering at the Université Abdelmalek Essaâdi Tétouan in Morocco (Afolayan, 2016). Subsequent to graduating in 2009, Abass collaborated with Susan Oguya with technical aptitudes. They were both annoyed by the territory of Kenya's agriculture. Trades were utilizing farmers into buying their produce for a small amount of their actual market esteem.

Abass and Oguya wanted to build up an answer to handle this issue. They conceptualized a digital platform that farmers could access through their mobile phones. They conjectured that this commercial center would arm farmers with the data they expected to ensure themselves and settle on more intelligent choices.

M-Farm started as an SMS service by which farmers could check the day by day costs for more than 40 harvests, and distinguish purchasers all through the nation. Through cooperating with prestigious tech startup M-Pesa, M-farm enabled farmers to make and get versatile installments. With cell phone innovation generally accessible crosswise over Kenya, M-Farm is a moderate choice for even the most unfortunate country farmers.

M-Farm offers three particular services: constant produce valuable data on 42 crops in five markets; collective crops selling by helping small scale farmers bulk their produce; and collective input buying, enabling smallholders to buy inputs at discounted prices (new-ag.info website).

M-Farm's site has an internet exchanging platform which records produce accessible to buy from their members. Purchasers can contact farmers legitimately, removing go-betweens.

Today the platform offers transport services to farmers through partnerships with local logistics and haulage businesses. M-Farm presently likewise arms its members with important industry knowledge. For example, Farmers can get to master farming counsel, estimates for future harvest requests, or direction on international guidelines, for example, disallowed synthetic substances and pesticides.

### ***Nnaemeka Ikegwuonu, Nigeria***

Nnaemeka Ikegwuonu is a social entrepreneur who owns Smallholder Foundation, which was begun with the point of giving small scale farmers access to agricultural best practices and counsel through a community radio station, Smallholders farmers

Rural Radio. He began the radio station in 2003 when he was only 21 years of age, and utilizing the media stage, he has figured out how to improve the lives of smallholder farmers.

He is the originator and CEO of ColdHubs which gives sunlight based controlled cold storerooms to farmers. As a vegetable grower himself, Ikegwuonu thought of a stroll in sun-powered controlled cold-space for putting away transitory vegetable produce to lessen harm (coldhubs website).

ColdHubs is a "plug and play" modular solar-powered walk-in cold room, for 24/7 off-grid storage and preservation of perishable foods. It satisfactorily addresses the issue of post-collect misfortunes in natural products, vegetables and other short-lived food (Coolhubs site).

ColdHubs, has procured cooling vans to move produce from farms to markets across Nigeria. The startup has winning in 2018 funding from the MIT Solve initiative and the Microsoft Airband Grant Fund (Jackson, 2018).

The energy productive monoblock refrigeration unit is associated with an inverter that empowers the sun-powered fueled batteries to supply energy for night cooling. Each ColdHub can fit around three tons of perishable food, masterminded in at any rate 150 units of 20kg plastic containers stacked on the floor.

Each ColdHub is ensured to give self-ruling refrigeration 24 hours per day without a grid connection. The cooling temperature is movable from five to 15 degrees celsius, and the cold room's unique safety door efficiently keeps cold air inside.

### ***Awa Caba, Senegal***

Awa Caba is an architect in software engineering from Senegal. When she completed her University considers, she began her very own startup called Sooretul which means 'it isn't so far' which endeavors to interface women makers with customers that live in a urban region (UN women, 2018).

The web stage began with five small and medium organizations driven by women with more than 100 products. In 2018, the platform had 17 small and medium organizations driven by women and more than 400 items in 10 classes. The stage sells grains, jams, syrups, beautifying agents and dried fish.

Women drove SMEs have detailed that Sooretul has empowered them to dramatically increase their monthly turnover.

## MNCs initiatives

### ***The Shell Petroleum Development Company***

Shell Nigeria Limited (SPDC) in Nigeria develops youth programs in their host communities by outfitting them with the fitting enterprising instruments and abilities (Olawale et al, 2018).

Shell Live WIRE Nigeria was propelled in 2003 to give access to entrepreneurship training, employment development benefits just as employment start-up capital for youth-claimed organizations. Operating in the Niger Delta district, Shell underpins youngsters somewhere in the range of 18 and 30 years going into employment. Herewith two examples.

### **Yolo Bakumor Smith**

Situated in Yenagoa, Yolo Bakumor Smith, De-Rabacon company collects household plastic and transforms it to commercial products, for example, channels, shopping packs, gems, and then some. Plastic waste can overpower seepage frameworks, adding to flooding. At the point when oriented in landfills, plastic can develop poisons that dirty soil and groundwater. Whenever consumed, plastic is a perilous wellspring of air contamination.

On account of training, coaching, and seed financing from Shell LiveWIRE Nigeria, De-Rabacon has gathered plastic from around 500 families, utilizes 6 lasting and 16 casual staff, and trained 47 people.

### **Dr Amrit Chandan and Carlton Cummins**

Dr. Amrit Chandan and Carlton Cummins got together and made Aceleron, a clean-tech start-up which transforms end-of-life lithium batteries, such as those found in electric vehicles, into safe, cost-effective storage for renewable energy (aceleron website), helping to bring access to electricity to many people in developing regions.

Aceleron established a testing procedure to distinguish which batteries are reasonable for reuse and to gauge how much energy is put away in them.

They produce battery packs to power houses, solar pumps, watercraft and a lot more around the globe.

With nearness in the UK, the Caribbean and East Africa, Aceleron makes imaginative capacity innovation that makes it conceivable to effortlessly support lithium battery packs, to redesign highlights and abilities freely, and to evade costly reclaim and transfer costs by ceaselessly refilling energy cells.

Aceleron's patented compression assembly method allows design and manufacture of advanced lithium batteries that are completely reusable and serviceable to really transform how battery users harness energy repeatedly to a sustainable asset relationship.

Aceleron is cooperating with the Shell Foundation to empower its revolutionary waste battery energy stockpiling innovation to give available, moderate, energy answers for off-lattice communities in East Africa.

Aceleron estimate they will most likely develop its batteries at a similar cost as a lead acid unit, around £150-200 for each kWh, contrasted with an expense of £250 per kWh for lithium particle (employmentgreen site).

### ***The Dangote Foundation***

The youth-focused Corporate Social Responsibility (CSR) projects of the Foundation deserve skills-acquisition and educational opportunities.

### **Dangote Academy**

Dangote Academy was established in 2010 to prepare young businessmen and skilled employees to be hired in Dangote manufacturing plants (dangote website).

Every year are conceded 100 adolescents for training towards procurement of specialized aptitudes and administration capacity for limit development and strengthening.

Regions of specialization for the preparation as given by the educational program incorporate mechanical, electrical upkeep educations with 80 percent specialized and 20 percent class work.

Industries can't depend entirely on Universities and Colleges of Technology to give the specific specialized and managerial training required to run significant current modern manufacturing plants, for example, Dangote Cement processing plant,

especially in the huge quantities of staff they required to run their initiatives everywhere throughout the nation and outside Nigeria. As indicated by him, inside and outside Nigeria, Dangote has cooperative energy with respectable foundations, for example, German Organization of Equipment Manufacturers, (VDMA) and Technical Vocational Education and Education (TVET), and the National Board for Technical Education (NBTE). The primary set was conceded in 2014 the vast majority of whom are now working in different units within the Dangote Group while a few others are working in other manufacturing plants across Nigeria.

At the end of the 18 months training program at the foundation, these 100 young Nigerians which cut across every state of the federation become ace professionals basically in electrical foundations and support, welding and build, machining and fitting, mechanical upkeep and instrumentation.

#### Youth Rice Farm project

Dangote Youth Rice Farm venture is for the most part an out-cultivator plot for adolescents just, hailed off in 2017 at the Lower Niger River Basin Leadership, Kampe, Ejiba in Yagba West Local Government Are of Kogi State (Ahiuma-Young, 2017).

Under the plan, the young are helped to develop rice of more than 100 hectares of land. The venture was gone before by giving the young farmers a training program on the dynamic of rice cultivating. For supporting the project, the Dangote Rice Company gives seedlings, against vermin synthetic concoctions and composts to the farmers and income off the rice at collect.

The project improves Nigeria's household rice production. The second period of the undertaking is for the Dangote Rice Company to have a 150,000 metric tons incorporated rice factory for processing the rice.

#### Professional training plan

Dangote Petroleum Refinery and Petrochemicals Company have introduced a professional training plan that will ingrain fundamental abilities in youngsters and women from the Ibeju-Lekki territory of its activity (Asu, 2019).

The program, which was propelled in a joint effort with the National Directorate of Employment and the Nigerian Content Development and Monitoring Board, is intended to cover plumbing, masonry, welding, iron bending, auto mechanics and electrical works.

#### ***Accenture, Citi Foundation -Youth Employment International (YBI)***

YBI means to help 1 million youngsters (18-35 years) to begin, fortify and develop feasible companies by 2025. Its international network of expert organizations is available in 50 nations crosswise over 6 continents, attempting to grow new answers for the basic difficulties confronting young entrepreneurs. Thus, they help to make more operates, fortify communities and encourage manageable development. YBI's employment is upheld by Accenture, Citi Foundation and Inter-American Bank Group who have been instrumental in helping them increase the impact of their network.

YBI's responsibility to coaching sees young entrepreneurs combined with an accomplished volunteer employment tutor to manage them through the difficult beginning times of building up a business. YBI members likewise bolster young entrepreneurs to access finance.

In cooperation with the SDGs, they are building their aptitude as a system in operating with country youth and youth moving and guaranteeing their work both promotes gender equality and reduces inequalities.

YBI centers around four vital pillars: Innovation and Growth, Developing Member Capacity, Evidence, and Learning, Community Quality and Sustainability. Herewith two cases upheld by YBI.

#### Egbayelo-Raphael-Tunde, Nigeria

Egbayelo was born in 1989 in Ondo state, Nigeria and experienced childhood in the city of Lagos. Egbayelo grew up with his mom in Ajegunle. He started working as a server (youthemployment site). This helped him to get organization and human behavior. He operated there for four years and was elevated to supervisor. Yet it was right now that he found his enthusiasm for movies and therefore left to begin his film making profession. Egbayelo's previous boss connected him to his first film mentor. He went to the Royal Arts Academy to do an expert filmmaking course. However he

wanted to be independent and make jobs for other youngsters.

Egbayelo began his business, Uvisuals Studios, in 2015, creating everything from standard film and video preparations, to corporate recordings, documentaries, and occasion recordings. He mostly discovers clients through internet based life development and referrals. The greatest test in beginning the business was at first finding the clients. They were for the most part corporate organizations.

Egbayelo was bolstered by FATE Foundation, YBI's part in Nigeria, to pick up the aptitudes he expected to maintain his business, in the wake of finding out about them through one of their volunteers. The business is currently more responsible in the wake of having successfully established a framework which FATE foundation observed through development and bolster unit and they have likewise characterized their standard activity system.

#### Sandra Letio, Uganda

Even after Sandra finished her college degree in Physics and Math, she was not able get employment (yecommunity website). This was the fundamental motivation behind why she went into her own business in 2012 with just \$15.

Sandra Letio maintains her own business, on account of the help and subsidizing of Entrepreneurship Uganda, the YBI part situated in Uganda. Sandra kept in touch with the Executive Director of the Uganda Industrial Research Institute to ask them how I could improve her cleaning products. Sandra enlisted her business under the name Pelere, 'something wonderful' in Madi language

Pelere Group Ltd is currently a private business that makes Detergents, Cosmetics, Candles, and other family unit items. Pelere uses resources from the local community and sells its product all over Africa. It operates with 20 permanent staff members, along these lines helping the local economy by operating with around 170 nearby farmers who supply Shea spread and herbs.

#### ***The Rockefeller Foundation***

##### Digital Jobs Africa (DJA)

The Foundation made its Digital Jobs Africa (DJA) activity to help prepare youth – explicitly those with limited access to opportunities, with the aptitudes,

and job policy bolsters important to change into an innovation empowered workforce.

The Rockefeller Foundation is spearheading inventive work in the field of "impact outsourcing" in its Digital Jobs Africa program – a six-year, US\$100 million program to affect 1 million youth in Egypt, Ghana, Kenya, Morocco, Nigeria, and South Africa. Utilizing data innovation, it tries to inform youth about employment opportunities and convey aptitudes training to Africans living at extensive detriment to produce social and economic opportunities.

Genesis Analytics was engaged to collect data and gather case stories from participating youth in Ghana, Kenya, and South Africa.

Herewith the experience of certain members to this program (Genesis Analytics, 2018)

##### Paseka Mokoena, South Africa

Paseka experienced childhood in a poor family. Neither of his parents was employed. Thus, they couldn't afford many basics, such as shoes, which made him self-conscious and shy of interacting with his classmates. For him, the preparation supported his relational abilities, which, joined with his accomplishment in discovering employment and consequent income, has brought about an expansion in his fearlessness.

He is at present analyst at Bytes Procurement Services. He is never again terrified of communicating with individuals and he is surer both in the operating environment and in social settings. This has empowered him to seek after vocation objectives, which he recently felt were past his compass.

##### Kenan Machogu Kenya

Kenan Machogu, 22, graduated from Kenyatta University with a degree in media communications building. A companion gave his name to the DJA grantee, Cloud Factory, which sent him an online application and acknowledged him as a learner. Subsequent to finishing the preparation, he went into a part time employment with Cloud Factory.

##### IDH (Sustainable Trade Initiative)

IDH is a 3 years activity project financed by Rockefeller Foundation which looks to build the accessibility of raw materials for Psaltry through training and activation of farmers that will increase the yield and salary of 1000 farmers under the core

farm and extra 7, 500 outer/community farmers inside the space of 3 years.

The point of the venture is to conquer any hindrance of raw materials shortage which has been the main consideration obstructing the 50 tons limit starch processing plant the organization right now has from running at full limit.

The business model is to support 1000 core bequest farmers to supply 40000MT/annum of cassava root to Psaltry International Limited processing plant and train extra 7,500 outer/community farmers at full capacity.

#### ***British American Tobacco Foundation, Nigeria***

The undertaking has a three years cycle; farmers will get financial and specialized help from the foundation through Psaltry extension unit. A level of the farmer's benefits will be saved and paid into the helpful record for manageability and for the buy of contributions to the third year of the project. Technical support, extension service and monitoring will be provided to the farmers. To ensure sustainability, farmers will be properly monitored to make sure the fund set aside in the first two years are used to expand or maintain their operation in the third year .

Psaltry will leverage on her existing Outgrower scheme where tractor services, inputs, technical support, trainings and extension service will be provided to farmers while Psaltry will sign a buy back agreement with the farmers as a means of guaranteeing stable market for the farmers produce.

#### ***Microsoft 4Afrika Academy***

Microsoft 4Afrika spotlights on world-class aptitudes and world-class education platform both on and offline, to enable Africans to develop abilities for entrepreneurship and improve their employability and competitiveness ([microsoft.com/africa/4afrika/foundation/site](http://microsoft.com/africa/4afrika/foundation/site)).

It has established the Afrika Academy, a route for students to learn and cooperate online with businessmen from over the African continent.

Microsoft representatives from everywhere throughout the world volunteer their time, ability and impressive aptitude to help build a successful and dynamic future for Africa. Propelled in late 2013, members bolster a wide scope of people and companies over the continent, running from start-

ups, small and medium companies to schools, colleges, government offices and people, for example, students, graduates, and job searchers. The Microsoft Virtual Academy 4Afrika offers a web based learning knowledge gratis. Innovation and employment courses are accessible, planned in Africa, for an African crowd, to address individual issues.

#### ***Airbnb Africa Academy***

Airbnb has created the Airbnb Africa Academy, to empower sound the tourism industry and entrepreneurship in rural and under-resourced communities over the continent (airnbcitizen site).

By operating with community based and grassroots organizations, the Academy gives nearby local hosts and co-hosts information and instruments that they can use to make postings on Airbnb's platform to further expand the role of local, healthy and inclusive opportunities in African tourism. The Airbnb Africa Academy is bolstered by the World Bank.

After an underlying test stage in eight South African communities in 2018, the Airbnb Africa Academy is focused on further building out its impact model in partnership with grassroots tourism organizations in both South Africa and Kenya.

#### ***Nestlé International Youth Initiative***

Under Nestlé International Youth Initiative, Nestlé makes around 3,000 apprenticeships and traineeship opportunities in Africa in 2018 and bolsters around 300,000 youngsters (nestlé site). The preparation incorporates vocation counsel, CV workshops and meeting direction, and happens at Nestlé locales, profession fairs and in schools and universities over the continent.

Through Nestlé Cocoa Plan and Nescafé Plan, more than 10,000 youngsters from Côte d'Ivoire and Ghana get training on great agrarian practices. This empowers them to take a shot at nurseries to develop espresso and cocoa plantlets with the help of confirmed agronomists.

The R&D development challenge in Ghana, will likewise happen in Côte d'Ivoire, Kenya, Nigeria, Senegal and South Africa (Nestlé, 2019). The objective is to cooperate with new companies and colleges to recognize practical and versatile science and innovation policies that help to quicken

development that meet nearby customer needs. The R&D development challenge calls for novel policies crosswise over four zones: naturally well-disposed packaging policies, maintainable cocoa plantlets, moderate food and new routes to market. The R&D development challenge is a part of Nestlé's International Youth Initiative, which has a desire to enable 10 million young individuals around the globe approach financial prospects by 2030. This supports the United Nations Sustainable Development Goals on promoting inclusive and sustainable economic growth, employment and decent work for all.

In 2018, Nestlé joined forces with Ashoka and the Swiss Agency for Development and Cooperation to make the Social Investment Accelerator, which quickens social entrepreneurship and lifts financial development of Africa.

Helped to establish by Laïssa Mouen and Eva Sow Ebion, Kinaya Ventures is a Dakar/Abidjan based development platform that interfaces promising start-ups to large corporations and investors, and fosters open innovation in Francophone Africa.

Kinaya Ventures has structured Spring Fellowship, an accelerator fund upheld by corporate partners which consolidates support to scale to seed subsidizing, and is running Upscaler, an upskilling system committed to creative entrepreneurs and ambitious innovators (kinaya website).

Two ventures are right now looking for top entrepreneurs from Kenya and everywhere throughout the world to help address these issues with the chance to access \$50,000 in subsidizing. HENRi@Nestlé is a public development platform where Nestlé accomplices with startups to make inventive, high-potential projects in light of brand and business challenges. The primary test named "Spreading Nutrition Knowledge and Empowering Better Health" centers around lack of healthy food, a noticeable issue in the Equatorial African Region (EAR).

While the locale has seen development over late years, Nestlé sees a chance to address this issue all the more adequately through digital innovation. To spread healthful learning to those with low degrees of awareness and an absence of access to data sources, Nestlé wants to benefit from the consistent increment of cell phone availability. Partners that specialize in honing and delivering information, tools and tips through relevant digital

channels are the ideal candidates for this application.

The second project "Supporting the Next Production of Farmers" expects to handle an issue confronting the world on an international scale. The population is developing at an amazing rate, placing weight on the international farming part in group the expanded interest.

Nestlé is inspiring the agripreneurs of the future to enable them to flourish in a changing cultivating industry. New companies with inventive thoughts encompassing the development of a measured educational class that is adaptable, versatile and imaginative are urged to take an interest. Herewith entrepreneurs upheld by Nestlé.

Lolia Kienka is a 26 years of age Nigerian who holds a MSc in International Business. In the wake of finishing the Management Trainee Program in Nestlé Nigeria, which ranges over right around two years, Lolia currently holds the situation of Corporate Communications and Public Affairs Specialist.

Marilyn Ofori began in Nestlé Ghana as a National Service Person in 2009. She has ascended through the positions to turn into the Category Manager for Beverages directing brands, for example, MILO® and CHOCOLIM®.

### ***The MasterCard Foundation***

#### **Strengthening Rural Youth Development through Entrepreneurship (STRYDE) program.**

In 2011, TechnoServe and The MasterCard Foundation banded together to support rural young women and men in East Africa. In the main period of the program, STRYDE conveyed abilities training, employment development and coaching to youngster's ages 18 to 30 in Kenya, Rwanda and Uganda (technoserve site). It planned to prepare 15,000 rural youth by 2015 with the aptitudes and knowledge important to exploit financial chances and increment their earnings, with the more outstretching influences profiting in excess of 67,000 relatives.

The program incorporates three months of small group training on self-viability, innovative reasoning, agriculture, and other hubs. The self-adequacy training is intended to enable youngsters to build awareness, self-assurance and better set

them up to take benefit of pioneering lucky breaks. It is trailed by nine months of customized aftercare, including job fairs, business development support, and financial abilities training. It enables members to distinguish economic opportunities in their communities, assemble the particular aptitudes expected to exploit those chances and interface with employers, banks, or purchasers for their products. The project targets country youth ages 18-30, with accentuation on those 18-24. Half of the members are young women. Generally 40% of members are occupied with no monetary action preceding their interest. 60% have finished optional school, and other 40% have no education past secondary school.

Most of STRYDE have expanded their salaries by 133 percent, with 90 percent. 30 percent are presently running small micro and small enterprises, 37 percent are occupied with cultivating, 11 percent have found wage employment and 6 percent have come back to class.

The second period of the program, STRYDE 2.0 operates with an extra 48,015 youth (50 percent of whom are women) and incorporate new regions into Tanzania and northern Uganda.

#### Financial Opportunities for Youth (EOY), Uganda

The MasterCard Foundation (2018) has started a program called Economic Opportunities for Youth (EOY). Through it, the Foundation puts resources into creative methodologies that improve access to employment and entrepreneurship pathways for economically disadvantaged youngsters (Dekker and Hollander, 2017).

Youth Empowerment through Agriculture (YETA) 2015-2017 Uganda arrived at 27,130 youth (clusauganda site), dispatch 583 YA incubation, supported registration of 746 YA's at local government level, formation of one youth cooperative, 3.739 youth start Community Based Solution Provider (CBSP) businesses.

YETA appointed a complete value chain investigation in the venture territory and starter result point to six primary value chains of; Poultry, Piggery, Soy bean, Maize, Sunflower and Agriculture.

Operating in four areas of; Dokolo, Kole, Masindi and Kiryandongo, the project that objectives out of school youth between 15-24 years, is being executed in a consortium of NCBA CLUSA (lead accomplice), Reproductive Health Uganda and Youth Alive Uganda.

## CHAPTRÉ VI

### Potential Domains for Youth jobs and Entrepreneurship

#### Agriculture

In Ethiopia, Malawi, Nigeria, Tanzania, and Uganda, the share of the operating youth (16 to 25 years) occupied with farming is lower than in the total population (ACET for Africa, 2017).

Insufficient access to knowledge, limited access to land, deficient access to finance related services, troubles getting to green jobs, limited access to employment sectors and limited contribution in policy dialogue are the main observed bottlenecks (Goemans et al, 2014).

By overhauling agrarian innovation and making agriculture more beneficial as a business, this sector could wind up appealing to a part of the educated youth who currently inspire to urban areas. These young entrepreneurs would fill the "missing middle" between the subsistence and smallholder farmers, who presently make up over 80% of Africa's farmers.

Farmers need upstream, seeds, feeding, during the production procedure, manures, and pesticides and downstream packaging and transportation. Youths could provide some of these products and services by establishing new companies or working for them.

#### *Access to knowledge*

The Regional Universities Forum for Capacity Building in Agriculture (RUFORUM) is a consortium of 32 colleges in eastern, central and southern Africa that was established in 2004. RUFORUM's main goal is to upgrade the quality and importance of postgraduate education in Africa. The diverse doctoral programs centre on Dryland Resource Management, Plant Breeding and Biotechnology, Aquaculture and Fisheries Science, Agricultural and Resource Economics, Soil and Water Management, and Agricultural and Rural Innovations (ruforum website).

An innovative lab in Rwanda is helping youngsters develop ICT-based agrarian policies and transform them into business ventures. In June 2012, kLab was established in Kigali to bring together tenants

and tutors. The connection up offers support to young entrepreneurs all through the procedure, giving them Internet access and training to improve their ICT abilities and concrete advice on how to market their ideas and access venture capital. The lab has acknowledged around 70 individuals and helped shape a part of their thoughts into business ventures (klab.rw site).

#### *Access to land*

The Relief Society of Tigray (REST), an Ethiopian NGO, propelled an activity in 1999 to enable youth in the Hawezien District of the northern Tigray locale of Ethiopia. REST bolstered the development of soil and water preservation structures on hillside lands. These structures were developed by the entire community and after that, the restored land was disseminated to landless youth in the Hawezien District.

The young beneficiaries get a landownership document from the village administration to make the land transfer official. REST likewise bolsters also, tree planting, beekeeping and the construction of water tanks in collaboration with local extension workers. The youth that benefits from the project are organized in associations which formulate their own land management by-laws in order to avoid misuse of the land. Through the undertaking, 360 landless youth have gotten an aggregate of 90 ha of land and they presently get a salary through the closeout of eucalyptus and honey delivered on their property (dryland site).

Uganda Rivall Uganda Limited (RUL) is a trading firm dealing in food grains, vegetable oils and honey. RUL started working with youth groups from the Kisoro locale in southwest Uganda in 2011. RUL enters into short-term lease agreements with landowners that don't wish or don't have the ability to use their land in the foreseeable 12 months. RUL works closely with the local authorities to sensitize landowners with regard to youth and their need for access to land. Landowners' children are urged to shape or join groups to utilize their relatives' land. Once RUL and the landowner on the renting conditions, and the methods of payment, and once the Uganda Land Commission approves the rent, RUL communicates the accessibility of the land to present or forthcoming youth clusters through

noticeboards in the community and the RUL extension workers (naads website).

### ***Access to financial services***

In 2011, the Government of Uganda in cooperation with DFCU Bank, Stanbic Bank, and Centenary Bank propelled an investment reserve to begin the Youth Venture Capital Fund. The fund planned to help the development of practical and maintainable SMEs (small and medium ventures) in the private part. To fit the bill for credits, youth entrepreneurs must be aged somewhere in the range of 18 and 35. Every business project must exhibit its capacity to give employment to least four people by the end of the loan period and every borrower must present in any event two credible guarantors. Eligible sectors include: agroprocessing, primary agriculture, fisheries, livestock, manufacturing, health, transport, education, ICT and tourism. Consistently the Government and taking an interest banks audit and concur on an appropriate rate for all credits to be affirmed in the ensuing a year.

### ***Access to green jobs***

On the off chance that water hyacinth, waterweed, is not controlled it will cover lakes and lakes completely. This influences the water stream, however keeps the daylight from arriving at sea-going plants and exhausts the water of oxygen, accordingly killing fish.

Michael Otiendo, 32, from Kenya and Robert Atuhaire from Uganda, each changed an ecological issue into a business opportunity and now utilize the water weed to make paper. The knowledge has been procured from the Kisumu Innovation Center Kenya (KICK). KICK gives training chances to youth living around Lake Victoria for the production of value and imaginative items produced using reused products. A privately built machine and a distinctive procedure are utilized to change the plants into paper. The final results incorporate envelopes, A4 size printing paper, photograph outlines, shopping sacks and blessing packs for functions (employmentdailyafrica site).

### ***Access to markets***

A 26-year-old Ghanaian, Richard Ahedor Seshie, established Vivuus Ltd, a small enterprise intended to improve the aggregate provincial vehicle framework and lift small Farmers' salary and the income of road merchants.

Vivuus Ltd has established a rural transportation system for the collection of crop surplus, agricultural waste and market residues in urban centres, selling on to third parties or for conversion into biogas and fertilizer. Vivuus has additionally established a cell phone-based deals framework empowering women merchants in urban centres to buy food staples. It conveys field operators to enroll women sellers, who must have a cell phone. Women hence become the fundamental casual sellers, ruling retail deals to customers on urban markets and improving dissemination (vc4africa site).

Vivuus send them continuous 'deal of the day' SMS, offering staples at discounted prices. Vivuus exploits soccer fields and uncompleted houses to set-up impermanent early morning discount markets.

At the farm level Vivuus pick a lead farmer who collects the produces from other farmers. The farmers have available to them trucks so they don't need to utilize head portage or walk abundantly to pass on their produce to an accumulation point. Vivuus likewise centers on agro-residues.

### ***Staple Crops Processing Zone (SCPZ)***

Some African nations established industrial parks for agriculture, furnishing land with infrastructure to attract investors into commercial farming and agribusinesses. MNCs and international organizations invest also in agribusiness.

SCPZ are promoting sustainable agricultural value chains in Ethiopia, Zambia, Togo and Democratic Republic of Congo | African Development Bank (AfDB) (greenclimate website)

SCPZ are agro-based spatial development initiatives intended to concentrate agro-processing activities within areas of high agricultural potential to boost productivity and integrate production, processing and marketing of selected commodities (tralac website).

### **SCPZ Olam Rice Farm, Nigeria**

The Value Chain Development Program (VCDP) organization between the farmers, Olam Rice and the International Fund for Agricultural Development (IFAD), started in 2015 with just 30 farmers on a pilot basis and extended to 1,349 taking part farmers in 2016 and to 4,976 in 2017 (Employment Daily, 2018). Olam has bought in excess of 25,200 MT of rice paddy from smallholder farmers and paid \$9.8 million USD in return. In total

25,000 individuals in remote towns profited by offering their produce to Olam. The organization additionally made 3,795 jobs past cultivating, fundamentally for youth and women in value chain undertakings.

Olam gives 15% of contributions to farmers using a loan which is reimbursed with future deals and is accountable for circulating data sources. Olam centres on buying 75% of the rice paddy (leaving the staying 25% for local utilization) and guarantees payment to farmers upon delivery within 48 hours through direct transfers to farmer bank accounts. Using direct transfers boosts the utilization of the banking system among small-scale farmers. Olam additionally consented to develop rice collection depots within a minimum of 25 km of farmers.

The Nigerian government goes about as a facilitator and organizer of different interventions subsidized by the venture to encourage farmers and give farmer services, and furthermore acts as a supervisor to ensure that funds are used for the intended purposes. The Government additionally offers help through a half award to farmers on all contributions for the initial two years of the program, and connections farmers with the Nigeria Agric Insurance Company to give protection to farmers.

IFAD facilitates the ware coalition group, a platform for the farmers and Olam to examine issues identified with the organization including pricing, services and financing. IFAD likewise gives specialized help and is in charge of the supervision and execution of venture and framework subsidizing.

Olam Rice Farm has been upgraded to a Staple Crop Processing Zone (SCPZ) by Nigerian Minister of Agriculture (agronigeria, 2014).

Olam, through this activity, has tackled various issues in the communities. These incorporate viable usage of the land and employment for the adolescents which has repelled them from wrongdoing (Nairaland, 2015).

#### Alape Staple Crop Processing Zone (SCPZ), Nigeria

The Kogi State and the Nigerian National Petroleum Corporation (NNPC) signed in 2018 a Memorandum of Understanding for their interest in the Alape Staple Crop Processing Zone oriented in Kabba/Bunu Local Government Area of the State for the Cooperation in the Promotion and Development of Biofuels Project (Adeolu, 2018).

NNPC Biofuels covers an aggregate of 20,000 hectares for sugarcane or potentially 15,000 hectares for cassava with possibilities for further extension.

The project includes

for sugarcane

Sugarcane Feedstock Plantation; Cane Mill and Raw/Refined Sugar Plant; Fuel-Ethanol Processing Plant; Bagasse Cogeneration Plant; Carbon Dioxide Recovery and Bottling Plant and Animal Feed.

for cassava:

Cassava Feedstock Plantation; Cassava tubers tonnage; Fuel-Ethanol Processing Plant; Dry local starch; Carbon Dioxide Recovery and Bottling Plant; Animal Feed.

This is to provide about one million direct and indirect jobs.

#### Staple Crops processing Zone (SCPZ), Zambia

AfDB is supporting the Zambian government for the foundation of the Staple Crop Processing Zone (SCPZ) at Luswishi Farm Block in Lufwanyama District in Copperbelt (African Daily Voice, 2019).

The SCPZ activity is gone for feasible and adjusted agri-industrialization, promoting investments in the agriculture sector, upgrading country employment opportunities, drive economic development and decreasing rural-urban migration.

Farm Block development is one of the program territories recognized in the Seventh National Development Plan (7NDP) to help quicken economic diversification and job creation (Phiri, 2019).

#### Staple Crops processing Zone (SCPZ), Côte d'Ivoire

Bélier in Côte d'Ivoire is one of the areas chosen for the execution of the SCPZ (2PAIB), near the agro-mechanical park of Yamoussoukro (Rankin et al, 2019). Arranging incorporates the restoration of 17 provincial markets and the building of 12 pack houses for improved treatment of vegetable harvests. The project is financed by AFDB at 80 % up to USD 121 million (AFDB, 2019b),

The nearby Ecole supérieure d'agronomie de Côte d'Ivoire trains during half-year 800 young potential entrepreneurs ( half men and half women), who will profit from a financial support and multi-year counseling.

Are oriented 1 835 ha delivering 22 000 tons of rice, 335 ha of vegetables creating 11 000 tons of

vegetables, 12 000 ha creating 72 222 tons of maize and 360 000 tons of cassava. 461 600 individuals will profit from the undertaking (64% nearby).

### **Food processing**

We present herewith two areas of specialization opened to youth initiatives, fruits and cassava processing.

#### ***Fruit and vegetables processing***

##### Izandla Women's Initiative, Intaba Mountain Fruit Processing, South Africa

The Izandla Women's Initiative is an entrepreneurship and job production program explicitly planned for helping women living in country territories of the Western Cape (Van Lin et al, 2018).

Izandla is helping jobless or semi-utilized farm laborers to produce jam from the fallen organic product trees in the zone. The Nozala Trust paid for the rental of a neglected church and purchased training hardware for the women to start processing this natural product into jams. The Agricultural Research Council provided factory workers with technical training.

Intaba Mountain Fruit Processing is a provider to Woolvalues Food. From pickling to labeling, Intaba jams have created new livelihood opportunities for dozens of people living in the Piketberg area in the Western Cape. Intaba Mountain Fruit Processing was started by the Nozala Trust and the Cape. New and advanced equipment was purchased, and the facilities upgraded, providing the means to deliver a unique high-quality product (tshwarisano website).

##### Dursots and All Joy tomato training plant in Limpopo, South Africa

The Dürsots Group is a family-run venture situated in Modjadjiskloof in Tzaneen, Limpopo, specialized in the canning, bottling and packaging industries (City Press News, 2019). Aside from the Tzaneen activity, the company has industrial facilities in Eikenhof in the south of Johannesburg and Alrode in Alberton.

Dürsots, one of the leading black-owned and managed food manufacturers in the country processes thousands of tons of fresh tomatoes into tomato paste and manufactures cans of tomato and onion mix, whole and diced tomatoes and tomato seshebo, as well as other food products.

The company has made 70 lasting jobs and in light of the fact that tomato developing is occasional – from April to October – it utilizes several provisional laborers. The organization has likewise settled a "tomato outgrower scheme" to help small scale Farmers sell their items. This has profited individual farmers and helpful local farmers from Tzaneen, Giyani, and Musina. The scheme contracted 80 developing farmers and 10 established (commercial) farmers, all of whom were trained and supervised in the growth of crops.

##### Levubu Dried Fruit, South Africa

From a home production in 1983, to plant currently utilizing 35 workers (Idfruit, website), Levubu Dried Fruit is located in a subtropical valley at the foot of the Soutpansberg in Limpopo Province, South Africa.

Levubu Dried began by Emmie Cloete when she made a dried guava roll. The item was famous to the point that the business has grown substantially. Presently delivering dried guava, banana, pineapple, mango, and other tropical natural product items, Levubu Dried Fruit has purchasers all through South Africa.

Guavas are produced on the farm, while different natural products are sourced from the encompassing region. Levubu Dried Fruit dries organic products utilizing a mix of air drying in passages and sun drying. The manufacturing plant utilizes laborers from the rural region encompassing Levubu and trains every person in their particular assignment.

#### ***Cassava processing***

Cassava is a root crop grown in tropical climates. In Africa it is the second largest source of carbohydrates after maize. Cassava needs less water than maize and rice, and can remain underground for more than two years after maturity, reducing the need for large storage facilities. Herewith private and public initiatives which could attract youth to cassava transformation.

##### Psaltry International (PIL)

PIL is a Nigerian agro partnered organization Established in 2005 to market cassava produce yet later extended its employment line to incorporate farm development and food grade starch from cassava (psaltry site).

PIL has made a production community including up to 5,000 farm families which incorporate more than 2,000 outgrower farmer families, marketers, the employees, the merchants, the transporters, the retail input providers.

PIL established its 20-ton/day starch plant in 2012 and an extra production Line of 30 tons/day limit in 2015, with 400 hectares of Company Cassava farmland situated at Alayide-Wasimi Village, Ado-Awaye, Oyo State, a cultivating community of around 10,000 hectares of farmland. The organization gives employment to more than 300 individuals including 200 perpetual staff and 100 transitory staff.

PIL is a subcontractor to International bodies like USAID and International Institute of Tropical Agriculture (IITA) ([psaltryinternational](#) site). In 2009, IITA subcontracted a USAID supported prime undertaking to PIL. In the projects, PIL organized farmers in Oyo, Osun, Ekiti and Ondo states into clusters and provided the farmers with new cassava stem cuttings.

Top-notch Food Grade Cassava Starch can be utilized as an option for starch and other imported materials like wheat starch, in Food, paper, materials, cement, refreshments, ice cream parlor, pharmaceuticals, and building materials like tiles.

In 2016, Psaltry receive the right to utilized an application developed by Syngenta foundation called Farmforce as her Supply Chain Management Tool which aides in overseeing a huge number of outgrowers while likewise checking monitoring the activities of the extension.

#### GMC Universal and Asikess Ventures Limited

GMC Universal Ghana Limited has secured a US \$25m financing from Cosmos International of India for the foundation of a starch training plant at Nkwanta South in the Volta Region introduced by KORAT S W Group of Thailand, the biggest producer of cassava turnkey processing plants in Thailand ([ghana.gov](#) site)

Asikess Ventures Limited at Begoro-Aburaso has likewise with KORAT consent to make and introduce 200 tons every day cassava starch processing plant, booked for April 2019.

The project embraces a square cultivating framework where 2400 square farmers will be locked in to deal with the underlying 4800 hectares farmlands and give employment to more than 3000 individuals in the region.

#### Peak Agro Products (CAP)

The Crest Agro Products, an agro-based organization started development of an ultra-present day industrial facility as a feature of its N20 billion interest in the production and processing Cassava in Kogi (Sahel, 2017).

The manufacturing plant would begin with 110,000 tons of cassava for each annum and climb to the 500,000 tons inside two years including that the cassava prerequisite for the production line was massive. The organization has 13,000 ha cassava ranch at Apata, Lokoja Local Government.

#### Sunbird Bioenergy

Sunbird Bioenergy has finished the planting of a 400 ha cassava nursery in Sierra Leone ([sunbird](#) site). The long haul goal is to establish a core farm and out-cultivator program that will develop 600,000 tons of cassava for each year. This is relied upon to make financial prospects for 20,000 small scale farmers.

Sunbird Bioenergy utilizes the cassava to deliver bioethanol for the European transportation sector. Bioethanol is regularly mixed as a ratio of 1:9 with petroleum and sold as E10. Other value included applications for cassava incorporate starch and high-maltose sugar (HMS).

In Zambia, Sunbird Bioenergy Africa began at Kawambwa, Luapula Province, a cassava out-producer program that will give the supportable feedstock to a bioenergy venture that is relied upon to develop 120 million liters of bioethanol every year for the nation's ethanol-fuel mixing program (Biofuel Digest, 2017). The program incorporates the development of a cassava nursery in Luapula territory, the selecting and enlisting 20,000 out-cultivators for the project and the preparation of the out-producers. Subsidizing was accessible in 2017 for 5,000 out-producers and reached out to 20,000 out-cultivators in 2018.

#### The Sustainable Trade Initiative (IDH) and Grow Africa

The two organizations have mutually completed various programs crosswise over Africa to unite every one of the partners on a similar stage (Talk Agri Nigeria, 2015). The pilot intercession on cassava is in Nigeria, Ghana, and Mozambique.

The goal of the platform is to adjust private sector and public sector and facilitate partners to conduct

advocacy and to take action to address common issues.

#### Philafrica Foods

Philafrica Foods, an investment company involved in food processing and operating in South Africa, has bought a controlling stake in The Dutch Agricultural & Trading Company's (DADTCO) cassava processing business (Kruger, 2017).

DADTCO patented innovative mobile processing technology has changed the way cassava is perceived, grown and processed in Africa. Instead of transporting the perishable roots over long distances, we process fresh cassava on-farm or nearby. Our mobile technology results in zero waste. 100% of the cassava root is utilized.

#### Cassava Starch of Tanzania Corporation Limited (CSTC)

Tanzania has propelled in 2019, another cutting edge cassava plant, the Cassava Starch of Tanzania Corporation Limited (CSTC) situated in the southern district of the nation (Food Employment Africa, 2019).

The facility, which was built by a French firm, has the ability to process 60 tons of raw cassava every day, identical to 25 tons of value cassava flour every day and an ability to offer 420 employment opportunities,

The Small Industries Development Organization (SIDO) and Tanzania Industrial Research and Development Organization (TIRDO) are also among the major institutions of interest in the sector.

The new facility provides a reliable market for growers in addition to creating employment opportunities especially for the youth.

Tanzania has signed an agreement with a Chinese firm, Kanton Investment Company to construct a new cassava processing factory, estimated to cost US\$10 million in one of the eight districts of Tanga region, Handeni (Food Business Africa, 2018).

#### **Motorcycle Services**

The motorcycle cabs sector doesn't get any support from the government. Training programs could produce more jobs and enterprising activities. Moto taxis cluster is feasible at the national and regional level and even at the sub regional level around the borders of the different countries. The advantage of motorcycle in comparison to car is that they can travel in bad logistic infrastructure conditions.

#### ***Motorcycle taxis and transportation of goods***

Motorcycle cabs are regularly called 'Okada', 'peen-peen', 'engine taxi' or 'bodaboda' (Goodfellow, 2015). Motorcycle cabs showed up in Nigeria toward the start of the 1970s, in Yola and Calabar (Olvera et al, 2016; Olubomehin, 2012), preceding spreading quickly to a greater amount of the nation's urban communities. In Benin, they landed in Porto Novo in the second half of the 1970s and Cotonou in 1981 (Agossou, 2003).

The "ville morte" urban strikes toward the start of the 1990s helped them spread to Douala, Cameroon in 1991 (Sahabana, 2006) and Lomé Togo, in 1992 (Guézéré, 2008).

They have additionally existed since the part of the policy in a few East African urban areas (Howe, 2003) and to a lesser degree in southern Africa, for instance in Huambo in Angola (Lopes, 2010). There is a positive connection between motorcycle taxi and development of filling stations, bike mechanics and extra parts exchange (Okonda et al, 2015).

Okada business is a marker of youth innovative accomplishment, utilizing a few million youngsters as motorcycle proprietors, riders, repairers and extra parts sellers. Socially, Okada business has made new types of youth subculture and personality, solidarity and a pathway for social versatility.

Motorcycle taxis add to over 75% of yearly traveler transport and small cargo on country streets in Ghana, Malawi, Mozambique, Sierra Leone (Starkey, 2016; Unescap, 2005). On a rural street studied in Cameroon, 82% of traveler used motorcycle taxi (Starkey and Hine, 2014).

In Sierra Leone, Okada business employs directly 300,000 individuals as riders and another 50,000 in a roundabout way as repairers, park orderlies, food sellers or bicycle proprietors.

Starting in 2013, there were in excess of 189,000 motorbike taxi services, for the most part youth in the nation of 7.5 Million individuals (Benson and Peters, 2017).

The Bike Riders Unions (BRUs) are the umbrella body for Okada riders in Sierra Leone. The BRU's record of 200,000 enlisted individuals makes it the biggest youth organization in Sierra Leone, and its leadership at different levels are regularly courted by political parties.

The model from Sierra Leone parallels numerous urban communities in East and West Africa, where Okada riding has become a major economic activity

for youth. It is evaluated that there are more than 80,000 boda-bodas in Uganda, 78,000 enlisted Okada riders in Rwanda, more than 300,000 in Lagos, more than 100,000 in Guinea. (Ismail et al., 2009; Rollason, 2012). Okadas produce income for its riders, investors (bike owners) and the government.

The Okada business in Rwanda is assessed to produce about US\$1 billion every year, more than the estimation of Rwanda's exports (US\$599.8 million out of 2014) (Ngabonziza, 2015).

In Tanzania, the quantity of engine cycles has expanded from 2000 of every 2003 to more than 800,000 out of 2014 after restriction in motorbikes import were lifted (Starkey, 2016; Nyabuta and Muindi, 2018). It is estimated that in a country of 56 Million, this has created over 500,000 jobs for young men operating motorbike taxis.

In Uganda, the motorbike business has so extended that it might now be the second biggest wellspring of business in Uganda after agriculture. 7% of Uganda's populace relies upon this industry. The larger part of these is men between the ages of 25-29 years (Turyahikayo and Ayesigye, 2017).

In 2007, in Kenya, an expected 100,000 motorbikes were enrolled. In September 2016 the number came to more than 700,000 and the number is as yet developing (van Steenbergen et al, 2018). Most likely 450,000 of the engine bicycles are utilized as engine bicycle taxi. As a boda-boda is frequently utilized by more than one rider, the quantity of driver operates made is considerably higher. By now there are 21 assemblers in Kenya. There is considerable employment from repair shops and driving schools.

All boda-boda riders are required to have their driving licenses of class F/G. Motorbike riding is trained at local driving schools over a time of one month, after which one sits for a test. One can likewise learn through a companion's motorbike and apply for the permit. A motorbike has to be insured before it is used for public transport.

Riders inside the same region have framed their own affiliations (called Sacco), from which they normally choose their authorities. They keep up organization and guaranteeing boda-boda pick clients from assigned spots. They likewise guarantee individuals pursue traffic guidelines. Moreover, they check each other to guarantee riders don't drink and ride. Sacco's may rescue their individuals if there should be an occurrence of

traffic offenses by incoming fines charged. By and large, the Sacco looks into welfare of members and to ensure the services are provided seamlessly.

Gamberini study (2014) broke down the impact of Motorbike Taxi Service in Rural South Uganda in two towns, Kigarama and Nangara.

Kigarama is situated in the south side of the Kabale region, 6 kilometers from any seasonal road. It is a remote settlement with a developing populace and with moderately high education level. Nangara, is north of Kabale District, at around 2 Kilometers from any seasonal road and has a younger population.

Kigarama comprises of a higher number of people who have completed secondary school.

Gamberini study (2014) demonstrates how the Boda transportation frameworks enabled the provincial and remote populace to get in contact with a more extensive social and economic system. Kigarama is that the nearness of rural surplus is without anyone else's input a solid positive factor for improving the probability of utilizing the Boda framework.

### ***GPS and MAX applications in Rwanda***

Rwanda has set 1 July 2019 as the due date for all moto-cabs to have adopted cashless payment as a move to promote smart transport in the country and reduce losses to public transport businesses. Rwanda Utilities Regulatory Authority (RURA) is currently implementing new taxi-moto fares that will be integrated in the new electronic system developed by Yego Innovation Ltd – a local company that was hired to install the new application into all taxi-motos in Kigali city (Mobile Money Africa, 2019).

Each motorbike will be furnished with a taximeter that is inserted with a GPS to empower the controller and the client to perform various undertakings, for example, checking and incoming through stages like portable money. The GPS will likewise help in following motorcycles if there should arise an occurrence of security episodes.

The venture is a part of Kigali city key vision to embrace the advanced installment framework utilizing "tap and go" application for commercial transport in the capital city, by July 2019. The development will likewise permit taxi moto services to charge travelers as per km. Around 15,000 taxi

motos are operating in Kigali city, making around 350,000 outings for every day.

MAX is a mobility company that uses technology to make moto-taxis safe, affordable and accessible to underserved communities in Africa (max website). MAX enables financial inclusion for drivers, prioritizes safety, and uses IoT technology to track all drivers in real-time.

### ***Motorcycle transporting goods***

Karema (2014) study in Laikipia East Sub-province, Kenya, found that 33.3 percent of business motorcycle proprietors/riders were initially farmers while 18.2 percent of the riders had joined the profession after leaving school.

Amongst the agricultural inputs transported by commercial motorcycles in Laikipia East 66 percent was fertilizer. Fertilizers are delicate to awful climate environments and in this manner they require to be shipped to the fields quickly.

The other rural knowledge sources are manure which represented 10 percent, herbicides 7 percent, maize seeds 4 percent, while agro-chemicals represented 2 percent.

Karema study found that maize represented 33 percent, potatoes represent 26 percent and cabbages 48 percent of rural items shipped every month in Laikipia East Sub-County. This province is specialized in sale of motorcycle spare parts, motorcycle mechanics, petrol roadside sales and motorcycle garages.

The research revealed that the main bottlenecks breaking the development of this sector are the high insurance and license fee and the high cost of spare parts.

Transportation of products in rural communities, particularly from farms, is one of the real bottlenecks experienced by country tenants (Oyesikua et al, 2019).

### ***Motorcycle ambulance***

#### **Local communities in Nampula, Mozambique**

Local communities in Nampula went searching for answers to the access-to-care problem decided to focus on community-owned motorcycle ambulances that rapidly transport pregnant women to emergency clinics from remote areas over poor streets (Owens, 2019). In 2017 Dr. Ron Siemens, a partner educator in the division of pediatric crisis

drug at the University of Saskatchewan who is engaged with the venture, selected Antonio Nhampossa, a Mozambican craftsman and welder who has lived in Saskatoon since 2013, to plan and build a prototype.

Local authorities in Nampula chose people from their community to be the drivers, who were then trained how to keep up the machines and utilize the logbook and call framework and showed essential emergency treatment and care for pregnant women and babies. The preparation and licensing of the drivers was the most tedious part of the venture, yet the primary ambulances were conveyed and trained for use in January 2019.

#### **Kenya snakebite research and intercession centre (K-SRIC)**

Snakebite kills 32,000 individuals dwelling in probably the most hindered rural communities of sub-Saharan Africa and leaves more than 90,000 enduring unfortunate casualties with changeless physical inabilities/deformations. 10-30 years old endure the most astounding paces of snakebite mortality.

K-SRIC from the Institute of Primate Research (IPR), is a focal point in snakebite investigate. K-SRIC's key target is to embrace multi-disciplinary research activities prompting better finding and treatments for snakebite while moving in the direction of community-based model mediation frameworks with the essential objective of saving the lives and limbs of those afflicted with snakebites K-SRIC utilizes motorcycle ambulances to improve snakebite the board in Kenya and could be embraced all through sub-Saharan Africa to decrease the landmasses abnormal amounts of snakebite-incited passing and handicap.

#### **Partnership Overseas Net operating Trust (PONT), Uganda**

The Ugandan government and an European health specialist organization since held hands to help the debilitated in provincial territories get to health places for critical consideration (University Times, 2019).

Getting to human services in sloping eastern Uganda can be troublesome, particularly for pregnant moms who are going to conceive an offspring. Moms who are in regions that can't be

gotten to by vehicles need to walk long separations to maternity centres to conceive an offspring. In a crisis case, the mother risk losing her infant or her life.

Ugandan general health authorities together with the Partnership Overseas Net operating Trust (PONT), related with the Welsh Ambulance Services of UK, have since thought of motorcycle ambulances. PONT presented seven tricycles in the zone a few years back. Begun in 2002, PONT is a beneficent organization situated in Pontypridd town.

The activity has since paid profits as health authorities in Mbale district presently state the presentation of three-wheeler ambulances has since diminished maternal passings during tyke conveyance, as more eager moms could be carried to convey at local health centres. The motorcycle ambulances are positioned at health centres, and health laborers and community individuals are trained to ride and look after them. The motorcycles are able to navigate difficult road surfaces, especially during rainy seasons, than car ambulances.

#### Rural health centres in Malawi

An investigation which analyzed whether motorbike ambulances set at country health centres in was more successful than vehicle ambulances (Hofman, 2008).

Contingent upon the site, middle referral deferral was diminished by 2 to 4.5 hours. The price tag of a bike ambulance was 19 times less expensive than for an ambulance vehicle.

Yearly operating expenses were 508 US dollars, which was just about 24 times less expensive than for an ambulance vehicle,

#### Motorcycle ambulance in Mosango, DRC

The motorcycle ambulance, in the Mosango health center, in the region of Bandundu, Democratic Republic of Congo (DRC) is utilized as evacuation means by the health center of the zone to the hospital while it takes at least 140 km on foot or by bicycle (African Top Success, 2012).

This locality of 115 000 inhabitants to health care mainly in case of emergency, comes from the medical NGO, MEMISA, specialized in the sector of primary health care.

A community cash register system is established in the health center of the area or in the central hospital. This cash register will allow collecting what is required to pay the driver, the fuel and the maintenance of the motorcycle. Accordingly, 350 FCFA (around 0.30 €) as extra expenses must be paid by each patient counseling. Also, the exchange expenses of a patient with the bike ambulance are 1 000 FCFA (0.89 €).

#### Motor bike ambulances in Kenya

Motor bike ambulances have been introduced in Tana River County, Kenya, that ferry expectant women to the hospital thereby saving lives (Kapchanga, 2014).

Kenya loses 15 women and 290 youngsters day by day because of pregnancy complication. Around 35 percent of every single infant passing occurs because of extreme contamination. Around 66 percent of passings are brought about by pneumonia and looseness of the bowels. In excess of 34,000 stillbirths happen every year.

Four motorbike ambulances have just been purchased by St John Ambulance for guiding in four remote towns in Tana River County, which has one of the most significant maternal passing rates. The towns are Biressa, Wayu Boro, Dende, and Tawakal.

#### **Charcoal economy**

Wood charcoal is a less expensive than current powers, for example, liquified oil gas (LPG) or lamp fuel. In this way, in nations which are simply starting to urbanize, it is very attractive as a fuel source. Furthermore, an expanded charcoal production has made many new jobs and a significant financial boost in many African countries.

#### **Charcoal utilization**

63% of international wood charcoal production is situated in Africa, especially Nigeria, Ethiopia, the Democratic Republic of Congo, Mozambique, Tanzania, Ghana, and Egypt (worldatlas website).

66% of all family units in Africa depend on wood fuel. Wood energy represents 27 percent of the landmass' absolute essential energy supply (FAO, 2014b; FAO 2017).

Africa developed 32.4 Mt of charcoal in 2015, 42 percent of which was in eastern Africa, 32 percent in western Africa, 12.2 percent in focal Africa, 9.8

percent in northern Africa and 3.4 percent in southern Africa (FAO, 2016a).

Notwithstanding populace development, quick urbanization is driving charcoal interest (Ghilardi, Mwampamba and Dutt, 2013), with most urban inhabitants in SSA utilizing charcoal when accessible. 95 percent of Liberia's urban populace uses charcoal (Jones, 2015).

In the United Republic of Tanzania, around 85 percent of the urban populace depends on charcoal for family unit cooking or as an energy contribution to small and medium-sized undertakings (GFC, 2014).

In Kenya national charcoal utilization becomes quicker than the pace of urbanization (Iiyama et al., 2014) and the general pace of populace development (Iiyama et al., 2013). The charcoal value chain is a source of jobs and entrepreneurship for youth.

### ***Sourcing wood and charcoal production***

Charcoal production in SSA is undertaken mainly by the rural population. These producers can be broadly classified into three major groups, the independent producers, the seasonal producers, and the employed producers.

#### **The independent producers**

The independent producers are “professionals” for whom charcoal production is the primary source of income. They operate in small groups and are mobile, moving from one woodlot to another once the raw material in a particular area is used up. The independent producers seek out forest owners and negotiate a lump sum price based on density, acreage, distance from roads and type of trees. They have some bargaining power with regards to selling price as they may directly bear the responsibility of transporting charcoal to urban areas (e.g. on bicycles) or have an agreement with charcoal transporters for a set number of bags and price.

#### **The seasonal producers**

The seasonal producers are ‘semi-professionals’, typically subsistence-based farmers who pursue charcoal production to generate income during the non-agricultural season. They operate in small groups and their area of operation is limited (i.e. seasonal producers may not venture too far away from their villages). They have very small

bargaining power by setting the selling price of charcoal and often negotiate on-spot prices with road-side transporters.

#### **The employed producers**

The employed producers are ‘salaried charcoal employees’ who operate as part of a large charcoal producer – either licensed entities (e.g. for export) or as part of unauthorized ‘charcoal cartels’. They operate in relatively large groups of people, are more organized and therefore more efficient. They are relatively better paid than the previous two categories and typically inspire to forested areas which offer larger volumes of raw material. This makes these paid employees relatively less mobile than the independent producer but causes higher deforestation in terms of acreage.

#### ***The conditioning, packaging , logistic and distribution***

The conditioning and packaging today is mainly unskilled work intensive but it could be skilled intensive adapting the packaging to each customer segment and application.

A review of charcoal transporters inside Nairobi County uncovered that 10% Bicycles, 30% Carts, 70% Lorries, and Canters are utilized for moving charcoal (kenyaforestservice site). Logistic and dissemination could be improved by more significant transportation imply ready to serve every client segment.

#### ***The Demand***

The Demand incorporates the distinctive segments of shoppers: private purchasers, ventures and food slow down and cafés.

#### **Private purchasers**

Run of the mill family units utilizing charcoal is rural, urban low income to white-collar class or peri-urban inhabitants with limited access to kindling all the time. The operating class for the most part purchases charcoal in sacks up to 5 kgs while lower salary purchasers base their utilization on the day by day wage accessible.

#### **Industries**

Industries have boilers that are sustained with biomass and charcoal. Charcoal not just offers a less expensive option in contrast to petroleum products

yet, in addition a guaranteed supply thinking about that few SSA nations are subject to fuel imports, frequently shipped in unstable trucks going on low-quality streets that reason further delays. Non-renewable energy sources are exhausted at international outskirts which further expands their expense. Industrial consumers typically procure bulk quantities of charcoal from wholesalers.

### Food stalls and restaurants

The use of charcoal for cooking at roadside food stalls and restaurants is increasingly specific about the nature of charcoal being provided. While softwood charcoal is snappier to touch off and gives extraordinary energy, there is an equivalent interest for hardwood charcoal which can give nonstop warmth to a timeframe required to keep the food warm more than 3-4 hours. There exists no formal framework for recognizing charcoal quality. At present, the nature of charcoal provided depends on trust and goodwill.

Organizations and schools employ chefs who use significant quantities of charcoal in combination with wood fuel in large capacity cook stoves. Keeping fuel cost low is of prime concern.

### ***Professionalization process***

Youth in the charcoal value chain could develop more value and open the entryway to other people if from the import of transportation means until the organization of the transportation service will be presented the accompanying enhancements. The preliminary condition is an efficient management of the forest sector and the whole value chain.

### Management of the forest sector, Rwanda case

Rwanda is one of the few African nations with increasing forest cover, growing about 7% from 2000 to 2005 fundamentally because of large numbers of forest plantations. This achievement compensating the lost 66% of its natural forest cover during the war. Today, essentially all charcoal in Rwanda is gotten from trees that have been planted on government, private or community land. Private woodlots planting eucalyptus, are giving an expanding some part of the kindling and charcoal market in Rwanda. Charcoal production from natural forest is nearly non-existent. Farmers have turned out to be mindful that with secure land residency and rising wood fuel costs, it is gainful to

put resources into tree planting and to deliver shafts for development, fuelwood and wood for charcoal making. Moreover, because of rising income, the position and social remaining of farmers in provincial society have improved. Farmers can connect with merchants—on an equal footing and to negotiate prices as is common in a free market economy (De Miranda et al, 2010).

A factor that has added to the achievement is that Rwanda as one of only a handful couple of nations in Africa applies private land proprietorship on an enormous scale.

Because of permitting private land possession, trees can be seen all over the place.

Individuals have an impetus to plant trees when they realize that the tree will, in any case be their property when it develops, which isn't the situation on basic terrains.

Trees structure a kind of security for farmers, which they can trade out an instance of need (MARGE, 2009).

### Kenya Ceramic Jiko case

One of the best stove extends in Africa is the development of the improved Kenya Ceramic Jiko (KCJ; otherwise called Jambar charcoal stove). It is made of metal cladding with a wide base and an artistic liner (more secure to utilize - cooler outwardly) and can decrease charcoal utilization by some 30%. It is utilized in practically all urban family units in Kenya (just as in 16% of country homes). In Kenya alone, some 2.6 million stoves are being used (combined production now more than 15 million), where KCJ production is presently completely self-supporting employment utilizing privately delivered materials and abilities, generating jobs and new ventures (Source: AFREPEN/FWD, undated).

The KCJ has been scattered crosswise over Africa, at first upheld via CARE and later by numerous other (nearby) organizations. The stove is very famous and clients think it looks pleasant (Visser, 2010). KCJ-type improved stoves are broadly utilized in Uganda, Tanzania, Rwanda, Burundi, Sudan, Ethiopia, Malawi, Zambia, Burkina Faso, Ghana, Mali, Niger, and Madagascar. The success story of the KCJ in Kenya is the result of the cooperation between the private and public sector. KCJ developed around the existing artisanal industry

which reduced the costs of setting up a whole new network (GTZ, 2007).

#### Import and production of kilns.

The import of furnaces will require support which should be possible via trained youth in that area. Local production of parts and various sorts and size of furnaces will open the entryway of a wide scope of jobs and entrepreneurship.

#### Import and production of transportation vehicles.

Today imported bikes are principally utilized. Tricycles and uncommon mechanized vehicles could be developed by youth and ready to serve the diverse section of clients.

#### Conditioning and packaging.

Packaging today is an enormous pack of 50 kilos with no probability to decide the nature of the charcoal. Various uses, warming, catering, brazing, could require distinctive sort of charcoal and separated Packaging. Distinctive quality levels are required by various clients' part. Small, medium and enormous packaging could be adjusted to clients' need.

#### Income distribution among the charcoal production community (Vos and Vis, 2010):

In Tanzania, by and large, makers can catch around 33% of the last end cost of charcoal, with transporters-cum-wholesalers catching around half. Retailers catch only one-6th of the retail cost.

In Mozambique, the charcoal business demonstrates to be in like manner more beneficial for transporters than for makers and retailers.

In Malawi, the distribution appears to be to some degree more equivalent, with qualities collecting to makers running from 20% to 33% of charcoal retail cost, to transporters from 20% to 25% and to retailers from 25% to 33% of conclusive selling value, as indicated by (Kambewa et al, 2007).

#### **Agri-Pharma**

##### ***Shea Faso soap - cream***

Shea spread is a skin superfood that originates from the seeds (Karite). An, E and F. It offers UV assurance (it is SPF ~6) and gives the skin basic

unsaturated fats and the supplements essential for collagen production (health mam site).

Shea spread has been utilized in Africa and numerous different areas for quite a long time to improve skin and hair health. It additionally has a long history of restorative use, for example, in wound consideration and notwithstanding treating disease.

Because of its cinnamic corrosive and other regular properties, shea spread is mitigating. One compound specifically, lupeol cinnamate, was found to diminish skin aggravation and even possibly help keep away from skin transformations. This additionally makes it valuable for certain individuals with skin inflammation.

Faso Soap is the brainchild of Moctar Dembélé, from Burkina Faso, and Gérard Niyondiko, of Burundi (release cnn jungle fever website).

Included Shea spread, lemongrass, African marigold and other plants from Burkina Faso, it is intended to leave a creepy-crawly repulsing smell on the client's skin subsequent to washing. It could be utilized to forestall against a wide scope of mosquito-transmitted environments - maybe in the long run even Zika.

The "soap of Faso" offers an innovative solution for the prevention of malaria, which takes into account financial constraints and cultural habits of African families. The company will deliver and showcase both antibacterial and hostile to mosquito cleansers made with 100% nearby assets to coordinate counteractive action against malaria in the day by day lives of individuals most influenced by this scourge. Faso Soap turned out to be formally in 2019 Maïa, the primary long span cream against intestinal sickness (inafrik magazine, 2019).

##### ***Haircare products using African botanical oils***

AfroBotanics of Ntombenhle Khathwane, a postgraduate degree in Public Policy and Politics BA Politics and Philosophy from Swaziland, fabricates premium haircare items utilizing African herbal oils and other common items and equations to think about the hair and point of confinement harm however much as could reasonably be expected.

AfroBotanics items depend on characteristic fixings, similar to aloe vera and coconut oil that are deductively gotten and sourced from different areas all through the African continent. Its fundamental product offerings are the super hair development cream, conditioner, and lotion with a leave-in-conditioner (afro-botanics website).

In six years, AfroBotanics established a completely equipped plant in Midrand and now occupies prime shelf space in a part of the nation's biggest retailers (Hartzenberg, 2017).

Every one of the oils benefits a community someplace. Coconut oil is produced in Mozambique, avocado oil and baobab oil in Nelspruit South Africa, and shea margarine in Ghana. As a small entrepreneur, Khathwane has additionally taken a choice to put resources into an especially economically-depressed community in Makapanstad in the North West.

### ***Cannabis therapeutic production***

Established in 2001 with a solid spotlight on African indigenous plant extricates, Afriflex South Africa is right now one of the manufacturers of complementary medicines (CAMs) and health supplement products in the country.

In late 2017 the South African government released a draft guideline for the cultivation, processing and distribution of medical cannabis in South Africa, (Kramer, 2018).

Afriflex joined forces with House of Hemp South Africa in 2018, the primary organization to get the Cannabis Cultivation License from the South African Health Products Regulatory Leadership (SAHPRA) (Lindeque, 2019).

This is a recorded achievement for South Africa to turn into a functioning and inventive player in the growing cannabis market and denotes a positive push ahead by SAHPRA to empower the development of the medicinal cannabis and cannabidiol (CBD) area.

A developing assortment of medicinal research both locally and comprehensively indicates the acknowledgment of cannabis – and particularly cannabidiol (CBD) use – for patients expecting to oversee infections like cancer (and the symptoms of chemotherapy), epilepsy and seizures, post-horrendous pressure issue (PTSD), glaucoma, dementia, Alzheimers, mental imbalance, fibromyalgia and a scope of auto-immune illnesses.

Theracann from Canada, a leader in the medical cannabis market and House of Hemp entered in June 2019 a collaboration agreement to build a sustainable cannabis industry In South Africa (Theracann Canada, 2019).

Theracann's GMP compliance software coupled with traceable cultivation technologies (ETCH biotrace) is pioneering the international cannabis industry and ensure ongoing compliance while setting the required international standard.

### ***Mining sector***

A boom in extractive industries can crowd out other industries, such as manufacturing, that are more conducive to long-term economic growth (Pole et al, 2017).

In Zambia, Africa's largest copper exporter, the incidence of poverty remained virtually unchanged, at 60 percent, during 2000–10, despite a doubling of economic output.

In Mali, large-scale mining accounted for about 7 percent of GDP in 2013, but less than 1 percent of the population was employed by the industry (Sanoh and Coulibaly 2015).

There are exceptions to the resource curse. Botswana, Chile, and Norway were successful in transforming their resource wealth into economic prosperity.

Canada, Sweden, and the United States are long ago able to diversify their economies and reduce their dependence on natural resources.

### ***Mining supporting local economic development***

In Tanzania, efforts have been made to improve the potential for local procurement, including in services such as catering, vehicle repair, machine shop services, welding, metal employment, electrical employment, and plumbing. However, the ratios of inputs sourced locally remain low, as they are in Ghana and Mali.

In Angola, the potential purchasing from the local market is in pressure tests on oil and/or gas, storage tanks and pipelines, transportation, foodstuffs, drinking water, catering, cleaning and gardening, maintenance of equipment and vehicles.

In Ghana mining local procurement opportunity are in the following domains: activated carbon, Ammonium sulfate, Bolts and nuts, Calico bags Cement, Fencing, Chemicals (caustic soda)

Conveyor rollers/idlers, Explosive supply HDPE & PVC pipes.

### ***Mining and youth***

Jønsson and Bryceson's (2009) review of diggers at two locales in Tanzania's ring of gold found that twenty-eight percent of the excavators were less than 30 years old; the general normal age was 36 years with a mean gold mining passage age of 24 years.

Some adolescent had been pulled in to high-quality mining in their teenagers, with a minority (7 percent) of pre-youngsters (10-multi years old). The dominant parts (77 percent) of the reviewed excavators were from rural backgrounds (Bryceson and Jønsson 2010). 23 percent of the inspected diggers had less than five years of schooling.

The researchers found that excavators who are 'early starters' with a normal mining passage age of 17 years have higher mean monthly profit than 'normal starters' with a section age of 22 years, while 'late starters' entering at a normal age of 40 get the most minimal income.

Their conclusion was that achievement in mining is an aggregate procedure of profession migration-related to expanding background, aptitude, and portability, which extends know-how and interpersonal organizations for data trade and pit get to.

Only 1 per cent of the children were projected to become future miners (Bryceson, Jønsson, and Verbrugge 2014).

### ***Large Scale Mining (LSM) and Artisanal and Small-Scale Mining (ASM)***

LSM is capital-intensive in production (Stoop et al, 2016). In a setting of poor governance, the commitment of LSM to government income may stay modest because an advantageous fiscal regime needs to be offered to private companies to compensate for the uncertainties that such a context implies.

The natural resource rents that reach the government budget are notoriously volatile, such that the burden to balance the budget falls on public expenditures. ASM scores are far superior on direct poverty decrease. This can be improved by formalizing ASM.

The current Mining Code envisages such a formalization procedure by requiring artisanal miners to frame cooperatives, which can apply for research and exploration in Artisanal Exploitation Zones (AEZs) and ought to take into consideration a transition towards small scale mining.

ASM happens in roughly 80 nations around the world. Artisanal and small scale production supply represents 80% of international sapphire, 20% of gold mining and up to 20% of precious stone mining. It is across the board in creating nations in Africa, Asia, Oceania, and Central and South America. Around 100 million individuals – laborers and their families - rely upon high-quality mining contrasted with around 7 million individuals international in mechanical mining.

Artisanal mining has developed from 10 million out of 1999 (ILO, 1999) to possibly upwards of 20-30 million (IIED, 2013).

The International Institute for Environment and Development (IIED) gauges that 15-20 percent of international minerals and metals get from artisanal mining (IIED, 2013).

### ***ASM in SSA nations***

In 2014, 9,8 million ASM operators and around 54 million individuals whose jobs rely upon the sector (Brown, 2018). ASM utilizes ten times a greater number of miners than LSM. 18% of Africa's gold, and practically all gemstones aside from jewels, are delivered by ASM.

In Ghana, two primary types of ASM are available, for example formal (or lawful) and informal ASM (Tychsen et al, 2017). The "formal or legitimate" ASM is the one where operators acquire permits from the authorities that regulate mining activities in order to undertake mining.

ASM operators secure access to land through either formal authorizing from the Minerals Commission or informal arrangements with traditional or customary land-owning groups through agreements with families, clans, skins and chiefs, who are usually the allodial landowners (Nyame and Blocher, 2010).

Complete gold production from ASM operators expanded from 2.2% in 1989 to 31% in 2016 (ghanatradinghub site).

## **Rwanda mines governance**

### Cooperatives

In Rwanda, cooperatives can apply for an exploration license inside an 'artisanal exploitation zone' (AEZ). The two larger cooperatives are 'Coopérative Minière Des Exploitants Artisanaux' (COMIDEA) and 'Coopérative Minière et Agricole de Ngweshe' (COMIANGWE) (De Haan and Geenen, 2015).

Much of the time, excavators were not involved in the selection of their leaders. many mineworkers are not aware of their right to be represented. The rise of cooperatives has not significantly changed the power and wealth distribution in the artisanal mining sector (Geenen, 2015).

The traditional elites that have utilized cooperatives to keep up their power position and legalize the abuse of excavators (Bashizi and Geenen, 2015; Kelly, 2015).

### International trade

Mineral export is very significant in Rwanda (Heizman and Liebtrau, 2017). In 2015, 55 % of the total exports was related to minerals. The 3T (Tin, Tungsten, and Tantgraduate) minerals are the most significant. 3T minerals were 79 % of the total mineral export from Rwanda in 2015.

While there are not many medium-scale mining initiatives, the real part of Rwanda's all out mineral production is produced by ASM programs. These small initiatives will, in general, utilize manual mining strategies, with few or no mechanized mining equipment. This labor-intensive approach generate mainly low skilled employment and gives benefits as far as adaptability and relevance, considering inspries identified with fluctuating mineral markets and infrastructural environments.

## **Cobalt, The Democratic Republic of Congo (DRC)**

Cobalt global demand has expanded because tense market situation for cobalt where most of the production originates from the DRC (BGR, 2017). Cobalt represents a significant metal utilized in the production of batteries, super amalgams, carbides, colors, and magnets. From 2010 to 2015 international cobalt request expanded from 65,000 t to in excess of 90,000 t for every year. Over a similar period, the mean compound yearly

development rate for cobalt request was 7.5 % while the interest for cobalt-based synthetic compounds expanded at a much more extreme pace of 10.6 % (CRU 2016).

The study "Commodities for Future Technologies",, commissioned by the Federal Institute for Geosciences and Natural Resources (BGR), brings up that notwithstanding when just considering the developing developments market (and particularly lithium-ion batteries utilized in electric autos), yearly cobalt metal interest should ascend to 122,000 t by 2035 (Marscheider-WeideMann et al. 2016).

Outside of China, Glencore plc, Umicore NV/SA, Sumitomo Chemical Co. Ltd and Sherrit International Corporation represent the most significant makers of refined cobalt.

Being largely a byproduct of copper and nickel mining, cobalt production is linked to the global production of these commodities.

DRC is expecting to build up a smelter in Tanzania to limit transport expenses of raw cobalt delivered to markets outside Africa (Tairo, 2018). The Congolese government will utilize smelters and other mineral processing plants in Tanzania to process its raw cobalt for the fare. Tanzania is creating mineral and mineral gather plants to process its raw minerals that the DRC can utilize.

The DRC delivers more than 70 percent of the world's cobalt, but lacks the electricity and key facilities to process it.. Tanzania and the DRC are looking at key alternatives that would allow to share mining and mineral expertise and create jobs for the young generation of both countries.

### **Medical applications**

Several high tech domains have been adapted by African entrepreneurs to the local needs and conditions. Their drives have developed jobs and employment prospects for some other youth.

### **Cardiopad**

The Cardiopad, developed by Arthur Zang from Cameroon, is a tablet that takes a reading of the heart activity and sends it to a heart specialist.

Four cathodes are appended to the patient's chest to determine if their heart is operating ordinarily. The knowledge is remotely transmitted to the tablet and sent, Via a cell phone, to a cardiologist

who can decipher the knowledge in less than 20 minutes.

Cardiopads are conveyed to medical clinics and centers in Cameroon for nothing out of pocket. Patients pay \$29 yearly memberships. The device is as of now being sold in Gabon, India, and Nepal (edition.cnn site).

Cardiopad empowers heart patients in remote regions to get to medicinal services without traveling to the urban communities where most heart masters employment (Chimtom, 2017). Youth could be trained so as to operate the framework in country neighboring and inspire the knowledge of the patients.

### ***CerviScan, Cameroun***

CerviScan is an innovation answer for the recognition of breast and cervical cancers targeting the most vulnerable populations developed by Arthur Zang from Cameroun (Abdelkrim, 2018).

Conrad Tankou has developed a digital microscope which is ultralight, compact and battery-operated, needs no electrical outlets and adapted to rural environment. CerviScan is furnished with a computerized camera that can be associated with a PC or a cell phone, where genuine-time pictures can be seen and spared. This innovation makes it possible to scan each coverslip (biopsy) using the microscope, by producing images that can then be zoomed in and analyzed in very high resolutions via smartphones, computers or tablets.

Today, in under a year almost 1,276 Cameroonian women aged 30 to 70 years have profited or are profiting by a follow-up led by CerviScan.

Expert training could open the entryway along the value chain to youth from suppliers of components and programming application up to be operators through medical centres with the patients.

### ***SMS lifesaver, Chad***

As a specialist in Chad, Didier Lalaye's saw a rising number of contaminations of bilharzia, particularly among youngsters and he realized he expected to plan something for stop it (africa.reachfrochange, didier website).

Bilharzia or schistosomiasis is a sickness brought about by small parasites. It is a treatable ailment, however one that can lead to very serious complications such as infertility and bladder cancer

if it is not dealt with early. The disease is Chad's second largest public health concern.

Didier carried the issue to a Reach for Change and Tigo and Reach for Change Competition in Chad in 2013.

Didier's innovation includes sending groups of businessmen to convey entryway to-entryway testing for the contamination. Results are then sent to patients and families through SMS. Where fundamental, therapeutic treatment regimens are likewise conveyed through instant message and prescriptions are conveyed directly to patients' homes.

In 2015, Didier dedicated his opportunity to increase his computerized innovation facto. He invested energy in the Netherlands to build up a small microscope connected to a mobile phone able to test for bilharzia accessible for people in remote areas.

In 2015, more than 1,600 children were tested for bilharzia and more than 300 cases were treated. Through the awareness campaign more than 60,000 Chadians have been reached.

### ***PaluCheck, DRC***

PaluCheck, developed by Patrick Kabangiro from DRC analyze intestinal sickness through infrared and web innovations and takes out the requirement for blood

and enables health experts to test patients rapidly and viably. PaluCheckTM is a diagnostic mobile application of malaria which use infrared captor instead of blood connected to a smartphone.

This activity is lessening the demise pace of youngsters contaminated with the disease through snappy analyses (facebook.com/PaluCheck site).

### ***Education applications***

#### ***Children's edutainment, Tanzania***

Ubongo established by Nisha Ligon from Tanzania is an Africa's driving maker of children's edutainment in six languages, English, French, Kiswahili, Kinyarwanda, Kikuyu and Luo (ubongo website). As a social venture Ubongo makes fun and enables children to learn using symbols or pictures.. Ubongo arrives at a large number of families crosswise over Africa through available innovations like TV, radio and cell phones.

The programs improve school preparation and learning results for children, and furthermore advance social and conduct change for children, guardians, and teachers.

Akili is an inquisitive 4-year-old who lives with her family at the foot of Mt. Kilimanjaro, in Tanzania. She has a mystery: consistently when she nods off, she enters the mysterious universe of Lala Land, where she and her creature companions become familiar with about language, letters, numbers, and craftsmanship while creating graciousness and dealing with their feelings and quickly changing small child lives! With communicate in 7 nations and a huge international web-based after, children from around the globe love going on mystical learning undertakings with Akili. Ubongo arrives at 11 Million family units in 31 African nations.

#### ***Education platform ,Shule Direct, Tanzania***

Shule Direct is an innovation-based answer for lack of educational resources developed in 2016 by Claire Mongeau (CEO) and Julie Otieno (CTO). ([shuledirect site](http://shuledirect site)). The mission of Shule Direct is to improve learning results of pupils and educators in Africa by making better approaches to convey education content through accessible innovation.

Today 1,489,982 pupils and 24,637 educators deal with the SMS stage called MAKINI SMS by doing specialized development, specialized combination, content development and setting up programs plans ([shuledirect website](http://shuledirect website)).

The number of test up-and-comers expanded by a factor of nine, from 42,887 applicants in 1998 to 397,126 up-and-comers in 2012. MAKINI SMS is a learning platform in Tanzania available via web platform and cell phones.

The web platform not just gives content in 13 subjects on the Tanzanian National Curriculum. It additionally gives extracurricular help towards youth development, for example, financial literacy, life skills and girls leadership. It empowers students to connect through a talk discussion that is directed by Shule Direct's virtuoso instructor.

Ticha Shule Direct and National Microfinance Bank Plc (NMB) have propelled financial Education on Shule Direct computerized learning stages to engage youngsters with money management abilities and incorporate a savings culture in Tanzania. The interactive online and mobile SMS content shows youth on defining objectives, moving

in the direction of them, finding out about accepted procedures in sparing and satisfying their dreams.

#### ***CreationHill, Rwanda***

15 percent of secondary schools in Rwanda have science labs, and just five percent have specific innovation programs. Creation Hill, by using trending technologies, fun experiments and technology-oriented games demystifies STEM standards for children and gives them a foundation to wind up future designers and trendsetters who will help build up Rwanda's economy not far off ([blogreachforchange website](http://blogreachforchange website)).

Gaspard Twagirayezu, Creation Hill initiator, holds a Bachelor's qualification in Electrical Engineering and a Master's in Engineering Management from Oklahoma Christian University. He has led building camps intended to expand enthusiasm for designing among youngsters. He has been operating at Agahozo Shalom Youth Village where he develops programs that demystify science and innovation to secondary school-age children.

Gaspard impacted thousands Rwandan students, who have proceeded to think about in STEM fields in post-optional and who will transition toward becoming researchers, designers, and IT experts driving Rwanda's development all through their vocations.

#### ***Eneza Education – Kenya***

The Kenyan startup established by Toni Maraviglia, Kago Kagichiri, and Chris Asegotwo, previous employees of Nairobi's iHub communities, intends to provide kids in rural Africa with a virtual tutor. Eneza Education creates educational content that kids in rural, low-income areas can access on low-end cell phones. Through its "virtual study hall," students between the ages of 11 and 18 can study subjects including Maths, Science, and English, and take any of its 2,000 tests and in excess of 16,000 inquiries, with the option of a mini lesson if they score below 50%—all for the equivalent of 50 U.S. cents a month.

#### ***Solar Energy***

The sustainable power source segment upheld about 10.3 million jobs international in 2017 (IRENA, 2018). Project level knowledge demonstrates that, by and large, sustainable power source creates a larger number of jobs than petroleum products. For example, sun based PV

ventures make in any event double the number of jobs per unit of power developed than do coal or flammable gas ventures (UKERC, 2014). Together, sun based advances – including CSP and sun based PV (small and huge) – would represent 89% of the sustainable power source operates expected in 2030. The deployment of around 40 GW of utility-scale solar PV across the region could result in around 124 000 jobs.

### ***The World Bank's Lighting Africa program***

The World Bank's Lighting Africa program opened the solar home framework transformation clearing crosswise over Africa, a dedicated multilateral development bank program focused on micro grids could change the lives of many millions (Guay, 2016).

Since running its first pilot extends in Ghana and Kenya in 2009, Lighting Africa has just empowered 28.8 million individuals crosswise over Africa to meet their essential power needs (lighting and cell phone charging) through quality-checked off-solar grids([lightingafrica website](http://lightingafrica website)). The objective is to arrive at 250 million additional individuals by 2030. Lighting Africa is as of now operational in 25 SSA nations.

Lighting Africa is executed partnership with the Energy Sector Management Assistance Program (ESMAP), the International Environment Facility (GEF) and the governments of Australia, Austria, Canada, Denmark, Finland, France, Germany, Hungary, Iceland, Italy, Lithuania, the Netherlands, Norway, Sweden, the United Kingdom, and the United States of America.

The Board of the World Bank Group endorsed on April 17, 2019 the Regional Off-Grid Electrification Project (ROGEP), which incorporates \$150 million as credit and award from the International Development Organization (IDA) and \$74.7 million contingent recovery grant from the Clean Technology Fund to enable the West African Development and ECOWAS' Center for Renewable Energy and Energy Efficiency expand off-grid access to electricity for populations in 19 countries in West Africa and the Sahel region. The general target of ROGEP is to expand power access of family units, businesses and public institutions using modern stand-alone solar systems through a harmonized regional approach. The project is relied upon to profit about 1.7 million individuals right now living without electricity connection.

Lighting Africa/Kenya propelled a program to prepare local female entrepreneurs in the employment aptitudes they have to begin or become their very own micro entrepreneurship. The preparation, kept running by Lighting Africa/Kenya in a joint effort with local society organization Practical Action, expects to connect with women in the sunlight based value chain as entrepreneurs and shoppers.

### ***Entasopia Microgrid, Kenya***

In 2012 SteamaCo, a UK organization established by Harrison Leaf and Sam Duby chose to handle the test of energy access by introducing an 8.5 kW modular solar microgrid in the small town of Entasopia in Kenya (Dorothal and van der Linden, 2018). The company also developed the technology to remotely manage the control of these systems, as well as manage mobile-money payments. The services and technologies are presently offered to other microgrid initiatives so as to give the benefits of this innovation to an expanding number of customers.

The Entesopia undertaking was propelled in 2013 when SteamaCo introduced its first completely automated microgrid management system. By April 2015, the company had introduced 23 systems in Kenya and two in Tanzania. These systems have a sustainable power source limit of 80 kW, with around 1,000 homes and small businesses and can produce 50 MWh/year of power.

### ***Kaï Microgrid, Mali***

In 2018, the Kai town set about raising money for the installation of a grid. The communities paid into a central fund. It took four months to raise 40,000 euros, enough to handcraft posts from eucalyptus trees and run 7km of link with 400 points of access. Kaï now has a decentralized community that has made local jobs and produces clean, affordable energy. Cutting-edge smart grid features, provided by SteamaCo, help Africa GreenTec, a German company, funded by Torsten and Aida Schreiber, to regulate power use, and to provide energy as cheaply as possible by encouraging consumers to prioritize energy use during the day. At the beginning of 2019, the Solartainer began providing internet access to Kaï. The company is currently raising funds for a

total of fifty Solartainers: enough to bring power to another 200,000 people.

### ***SolarAid and Sunny Money***

SolarAid a business-based approach to sell solar lights in Africa through its social enterprise, SunnyMoney (Hagan et al, 2015). SunnyMoney's field groups visit schools to clarify and show the benefits of off-grid lighting items to head educators. The head instructors at that point exhibit the sun-powered lights to their students and request that they advise their parents when they return home. The parents along these lines buy their first sunlight based lights from SunnyMoney's field groups at the schools. By structure trust and awareness in sunlight based lights through head instructors at schools, more students and their parents are coming to and persuaded to obtain the sun based lights. In Zambia, SunnyMoney gives access to sun-powered lights over Southern, Eastern, and Copperbelt territories. With help from the Ministry of Education, SunnyMoney operates intimately with district education boards to arrange head teacher meetings, bringing groups together to learn about solar lighting. Through SunnyMoney Zambia's trade and dealer networks, the teams sell lights through retail outlets, cooperatives and large agri-businesses as well as local shops and agents.

### ***Easy Solar***

Nthabiseng Mosia is a South African-Ghanian entrepreneur, co-founder of Easy Solar alongside Alexandre Toure and Eric Silverman (Rajgopaul, 2018).

Easy Solar rose in mid-2015 because of the energy needs in Sierra Leone where 90% of individuals (and 99% in provincial territories) did not have any power (easysolar website).

Easy Solar produces solar devices including solar home systems with lighting, mobile charging and DC appliances as well as solar lanterns.

Consumers use Easy Solar products for lighting purposes in homes and businesses.

Easy Solar has built a network of nine distribution points across 16 districts in Sierra Leone.

Until this point in time, Easy Solar has carried power to in excess of 100 000 individuals and has made 150 jobs. The organization gets its subsidizing chiefly from speculators like Acumen and Gaia

Fund, advances from Cordaid and SIMA assets and grants from MasterCard and AECF.

### ***Solar Box***

The Solar Box has been developed by Aubin Ngoua, an architect in the electrical building from Gabon (Jordan, 2017).

Solar Box Gabon leases and sells versatile solar based units with coordinated radio, a 220V socket, 6 lights of 3W, an MP3 yield, and 2 USB outlets for charging telephones (ulule website).

It consists on a solar cube on the roof of 9 faces of 10 W and thanks to its refractive power, it will produce twice as much energy as identical panels installed on flat surface.

By turning the inverter we can promptly observe the battery level. We can revive two electrical outlets and have 4 lights associated at the same time. There is the possibility of plugging a device up to 220V.

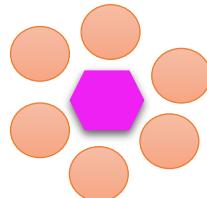
## CHAPTRÉ VII

### Models promoting Jobs and Entrepreneurship for Youth

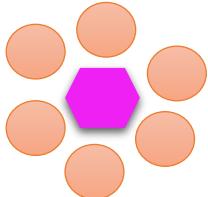
#### The Tripartite Cooperative Model

The Tripartite Cooperative Model includes Rural Producer Organizations (RPOs), Area Cooperative Entrepreneurships (ACEs) and Savings and Credit Cooperative Organizations (SACCOs) (Exhibit 1) (Kwapong, 2013).

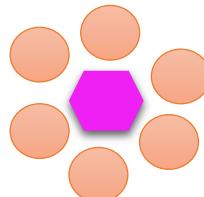
#### Exhibit 1: The Tripartite Cooperative Model



Rural Producer Organizations (RPOs),



Area Cooperative Entrepreneurships (ACEs)



Savings and Credit Cooperative Organizations (SACCOs)

RPOs are in charge of the production bolstered by ACE services, particularly in marketing. SACCO fund production and marketing. The ACE is paid a commission and along these lines endeavors to get a decent cost for its farmers.

The first RPO members are Nyakyera Matookye Cooperative Society, Kyentaama Matookye Cooperative Society, and Nyakabale Gamba Nokora Cooperative Society. Extra time, different RPOs joined NRACE.

The tripartite model is upheld in Africa by the Swedish Cooperative Center (SCC), Canadian Cooperative Center (CCC) and Royal Norwegian Society for development (Norges-Vel).

The significant specializations are beans and maize. The RPOs have expanded produce volumes and quality upgrade, bringing about them having the option to offer to numerous organizations and have contracts with universal bodies, for example, World Food Program (WFP) (UCA 2010).

**Nyakyera-Rukoni Area Cooperative Entrepreneurship (NRACE)**  
The tripartite model was implemented first by the NRACE (Thaganta, 2016).

With the coordinated model, the farmers are certain to get quality as well as less expensive agro-inputs since they buy mutually utilizing the advances from their SACCO in a joint effort with the ACE.

Three RPOs established the ACEs with help from the Uganda Cooperative Alliance (UCA) program on Promoting Area Cooperative Entrepreneurship (PACE) and financing support of SACCOs.

The members have been trained in improved fish cultivating systems including lake development, stocking, sustaining and collecting. Farmers, both men and women, participate in enterprise selection activities.

Collective marketing has been the strategy used to connect farmers to the market. Under the new framework, makers are connected to more than one conceivable purchaser. This guarantees rivalry among the purchasers and consequently reinforces the producers.

***Ddwaniro Integrated Farmers Association (DIFA), Uganda***

DIFA is an association of banana producers situated in Ddwaniro sub-area, in Rakai District of Uganda (Manzano Lepe, 2015-16). The affiliation began in 2001 to solve the low yields that farmers faced in the region.

In 2003 the producers chose to enlist as a Community Based Organization (CBO) in order to take care of issues related to soil, pest and diseases in their banana fields. The first activity of DIFA was to furnish data and training related to soil erosion, soil fertility and management of natural resources. They made a top managerial staff; five boards of trustees; Village Farmer Groups (VFGs).

The information services include trainings, demonstrations and different dissemination strategies such as the farmer to farmer training program. In 2008 DIFA chose to create the SACCO "Tereka". Some part of the methodology is to make contacts, market coalitions, and groups with representatives and brokers. Since 2008 the number of members was kept stable at 461. DIFA strategies try to incorporate the youth inside the organization.

The most significant accomplishments referenced by DIFA members is in banana production. As indicated by DIFA, their production expanded from 60% expansion on individual's plots.

95% practiced intercropping with coffee, beans and potatoes among other crops; 98% practiced mulching; 60% practiced manuring; and 40% applied composting.

Regarding activities and services DIFA's SACCO currently manages 150 members' loans and indirect loans through revolving schemes managed by the VFGs.

By 2016, DIFA had achieved a close relation with eight different research institutes, NGOs and government extension services. These organizations provide technical information, scientific knowledge and materials to improve the productivity and market access of their members. Among the external support actors who collaborate with DIFA are: the Masaka Diocesan Development Organization, World-vision, the National Agricultural Research Organization in Uganda, the National Agricultural Advisory Services of Uganda, Biodiversity, the Rakai Counselors' Association, Makerere University, and the International Institute of Tropical Agriculture.

***Kalangala Oil Palm Growers Association (KOPGA) and Kalangala Oil Palm Growers Trust (KOPGT), Uganda***

KOPGA and KOPGT are the ROPs as a part of the Vegetable Oil Development Project (VODP) in Kalangala, Uganda launch in the 1990s and is a Public-Private-Producers Partnership (PPP).

The VODP was the result of the Uganda government initiative to accelerate the agricultural transformation from subsistence to commercialized production.

In 2006, an understanding between the Government of Uganda (GOU) and IFAD as the SACCOs in the tripartite model, approved a 15 million-dollar loan to fund the undertaking. After six years, Oil Palm Uganda Limited (OPUL), a private investor, was added as ACEs to the project in order to develop the oil palm plantations and oil processing and the business and marketing issues.

By 2016, 100% of the palm farmers are enlisted as KOPGA members speaking to around 1,770 farmers in twenty-three units, seven blocks and one top managerial staff. KOPGA gives a voice to the farmers and represents a platform for taking an interest in different exchanges and discussions between the KOPGT boards, IFAD and the Uganda Cooperative Alliance (UCA) whose vision is to end up KOPGA a sustainable new generation cooperative by 2018.

Since the start, VODP determined that palm oil cultivators would require a five-year credit. KOPGT

was to create the financial and physical access between the farmers and OPUL (SACCOs) and to manage the oil palm development loan facility from IFAD for palm oil growers.

KOPGT deducts a loan recovery amount directly from the farmers' income as soon as OPUL paid farmers for their harvest.

KOPGT gives delivery services to all the agrochemical inputs and seedlings required by the palm producers including the transportation of fresh fruit bunch collected from the farmers to the OPUL mill for oil extraction (ACEs).

### The IITA Youth Agripreneurs (IYA) Incubation Model

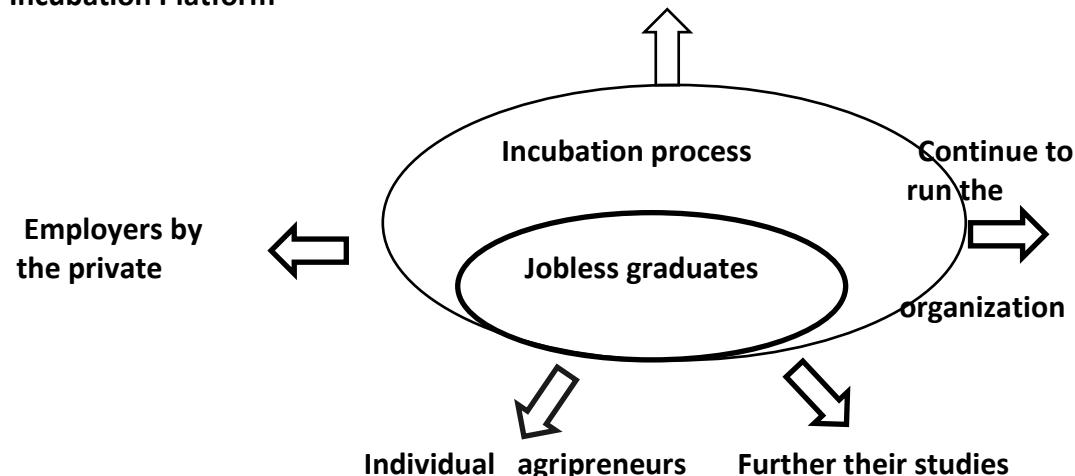
In 2011, IITA established the IITA Youth Agripreneurs (IYA) brooding project so as to give chances to underemployed youngsters, particularly in rural zones to build up creative farming ventures and improve their agriculture aptitudes.

IITA Young Agripreneurs (IYA) hatching target is to change the outlook of jobless graduates between the ages of 18-35 years towards seeing agriculture as a business (IITA, 2019).

The planning is that 40 percent of the trained young people become individual agripreneurs, 10 percent become employed by the Employment Incubation Platform of IITA, 10 percent become employers by the private, 20 percent further their studies from the incomes generated from the operations of IYA, while 20 percent continue to run the organization by conducting trainings and consulting activities (Exhibit 2).

### Exhibit 2: The IITA Youth Agripreneurs (IYA) Incubation Model

#### Employment Incubation Platform



#### *Academic agripreneurs*

##### Quadri Mustapha

Quadri Mustapha graduated from Ahmadu Bello University where he studied Botany was presented on the Yam Breeding unit of IITA for his one-year compulsory National Youth and joined the hatching centre of IITA Youth Agripreneurs (IYA) to get trained in agriculture (IITA, May 2018).

He operated with the Cereals and Vegetables unit and took an interest in maize, soybean and cowpea fields in Zaria, Kaduna State, and Mokwa in Niger State.

In 2017, Quadri enrolled Temmy Agriculture Consult (TAC) farm in charge of improving maize and

soybean grain for poultry growers as raw materials for feed formulation and oil processing industries that utilization soybean as a raw material. TAC farm has 13 hectares of the field in Zaria with an office situated at Challenge Ibadan, Oyo State.

##### Abosede Idowu

Abosede Idowu is a graduate of plant physiology from the Federal University of Agriculture, Abeokuta. Her activity into agriculture began in 2012 after her National Youth Service Corps (NYSC) plot in IITA was acknowledged (IITA, May 2018). Idowu established Gracevine Foods company, specialized in postharvest processing of yam, beans, and plantain into flour sold in the market in suitable

packaging according to the customer's segment, , families, cafés, industry or institutions (gracevine website).

### Adigun Adenike

Adigun Adenike is a graduate of agronomy from Ladoke Akintola University in Ogbomosho (IITA, March 2018). During her preparation, Adenike developed an enthusiasm for catfish smoking and joined a group of agripreneurs who operated under the name A.D. Foods and Farms in Ibadan. The business began in January 2018 and produces smoked catfish and plantain flour bundled in small, medium and big size.

### Adeniyi Temitope

Adeniyi Temitope is a graduate of Agricultural Extension and Management from the Federal College of Agriculture in Akure (IITA, March 2018). He operated with the Root and Tubers Unit of IYA where he was trained on the value chain of cassava and plantain. During his preparation, Temitope dealt with a 150-hectare cassava farm.

Temitope wandered into processing of plantain by creating a product known as Nectar Chips. The business which began in December 2017, operates inside Ibadan city and has grown within a short period of time with a production capacity of 5-20 dozens per day. Temitope gets a demand of 50 dozens of the product per day.

### Ngozi Chituru, Babatunde Ismail and Oni Hammed

After 18 months in the incubator of the IYA, the three young graduates established Frotchery Foods in Akobo, Ibadan, creating smoked catfish utilizing the smoking oven technology. The group has established market linkages inside Ibadan and its environs and the business is endeavoring and has additionally recorded an expansion popular. They have made operates for themselves and other jobless youngsters in the horticultural division.

### **IITA Rehabilitation Model, Imo State**

An incubation centre was established in 2017 in the South-Eastern part of Nigeria as a production generator model (IITA, March 2018).

The state government released some abandoned facilities - fish lakes, poultry, and a nursery at the Imo State Polytechnic Umuagwo to IITA to be utilized by the adolescent for the incubator program.

IITA sent six experienced agripreneurs from Ibadan and Abuja to remodel and revive the facilities and display the viability of the horticulture, fish, and poultry enterprises.

10 additional members who served in IITA with four locally recruited youth in the host community were dispatch to assist in conducting the pilot enterprises.

In 3 weeks of activities, the young agripreneurs reestablished five huge poultry houses and 20 fish ponds. A 5000m<sup>2</sup> nursery that was surrendered at the Anambra-Imo River Basin Development Leadership office at Agbala was likewise renewed for the production of vegetables, tomatoes, and cucumber.

To get together with the market request, the group raised another 1000sqm nursery to grow its production.

As of now, the young sell more than 720 boxes of eggs every day. They have sold more than 4 tons of fish and furthermore wandered into catfish smoking. They additionally developed 37 hectares of land for cassava and 8 hectares for soybean.

### **IITA Kalambo Youth Agripreneurs (IKYA) Food Supply Value Chain model**

IITA Kalambo Youth Agripreneurs (IKYA) has been started by young graduates from l'Université Catholique de Bukavu, DRC, so as to make showcase prospects for themselves, 500 local farmers and the entrepreneurs having a place with the food supply value chain beginning with cassava (iita, 2018). The group comprises of 32 dynamic individuals, 21 men, and 11 women. IKYA has been purchasing cassava from these farmers and processing it locally into flour.

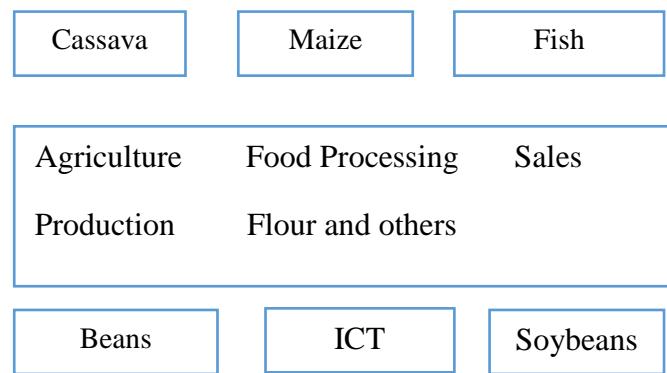
To empower nearby processing, and make employment prospects for local youth and women, IITA furnished IKYA with start-up capital, cassava esteem expansion training, quality planting materials, and cassava flour training hardware to build up eight cassava community training centres (CCPCs) the nation over (Exhibit 3).

In 2017, IKYA enhanced into training maize flour and trained 50 young provincial maize farmers from Kamanyola area in the production of disease-free maize grain. The young farmers known as Jeunes Entrepreneurs de Kamanyola (JEK) have additionally joined forces with IKYA to put resources into the

foundation of another maize flour processing centre in the area, which they supply with the raw material.

IKYA is at present occupied with 10 ventures including commercial production of root and tubers and grains, for example, cassava, maize, beans, soybeans, sorghum, maize and soybeans. Other ventures incorporate training for value expansion, fish cultivating and fish feed production (tilapia and

### Exhibit 3: IKYA Food Supply Value Chain model



### Songhai Production Pilots Model

Songhai target is to advance access of educated youth (12 classes) to proper pioneering leadership and the management aptitudes in chose areas by utilizing production pilots (DeLuca et al 2013).

In agriculture, Songhai utilizes agro-natural practices to lift soil richness, increment yields while securing the earth (UNDP, 2013).

By 1989, the Porto-Novo Center propelled a long haul training of year and a half to youth having 12 years education. In the initial nine months the students work and learn in various expert specializations from fish farming to fruits and vegetable production, chicken and pigs production, rice, cassava and maize production, and from food processing to machinery and tourism. Over the last nine months, they pick their favored specialization so as to be trained to start their very own business (Exhibit 4).

In 1992 Songhai opened meat, fruit juice, jam and flour facilities. In 1993 it opened an restaurant in Porto Novo using the products of Songhai. Besides, 12 students began following hostelleries and cooking course supported by the Accor group.

catfish), marketing and sales and service. The IKYA online store is selling agrarian products and processed food (ecwid.com site).

IKYA established coordinated effort with Airtel DR Congo, one of the bigger telecom specialist organizations in the locale (N'simire M. what's more, Mulinganya, 2017). Airtel consented to give free lines to data trade and sharing of mass SMS message services and advertisement. Every "employee" is viewed as a potential entrepreneur. Salary has 3 segments: one is the "social" part, which is a subsistence income; another is the "production" part, which shifts as per productivity; and the latter is the "innovation" part, which differs as indicated by what the worker was able develop or improve. Every representative, whatever the title, is a tutor. 80 percent of Songhai's laborers are previous learners.

Songhai training production pilots model train and supports young leaders in the agriculture and food processing yet additionally, in clean energy, the travel industry, and hospitality services.

### ***Agriculture, Food processing and Equipment***

Songhai is an organization with more than 550 hectares of land employing more than 1500 workers. It has opened 6 production, research, training and services centres in Benin, 11 in Nigeria, 1 in Congo Brazzaville, 1 in Liberia, and 1 in Sierra Leone; it is building 7 new ones in Benin in cooperation with the Beninese government and is arranging others crosswise over Africa with UN organizations.

Agricultural equipment, solar oven and food processing equipment are produced and sold in the local market.

### ***Clean energy***

Western Africa Biowastes for Energy and Fertilizer (WABEF) and Songhai Center participate in advancing a coordinated framework that incorporates the reusing and updating of waste from horticultural production (animal waste and crop residues) (CIRAD, 2017).

As of now, the Songhai Center in Porto-Novo produces 1,300 m<sup>3</sup> of gas for each month, providing two generators with a power of 75 kW. The digestate (11 tons/week) is utilized to prepare 5 hectares of harvests (horticulture and fruit production) and 2 hectares of fish ponds, delivering

enough for the restaurant and allowing to avoid the use of 1.4 tons of chemical fertilizer per year.

Songhai has besides established a gasifier that supplies co-generators of 60 kW for the production of fruit-juice processing plants and heat for drying vegetables, fruit or pellets for fish. This Singaz system is gotten from valorisation of tree-pruning deposits, palm part shells, coconut shells, corn cobs in the wake of ginning, and so forth. The biochar developed after the gasification is developed as soil conditioner, compost and for the sanitization of the waters utilized in fish culture

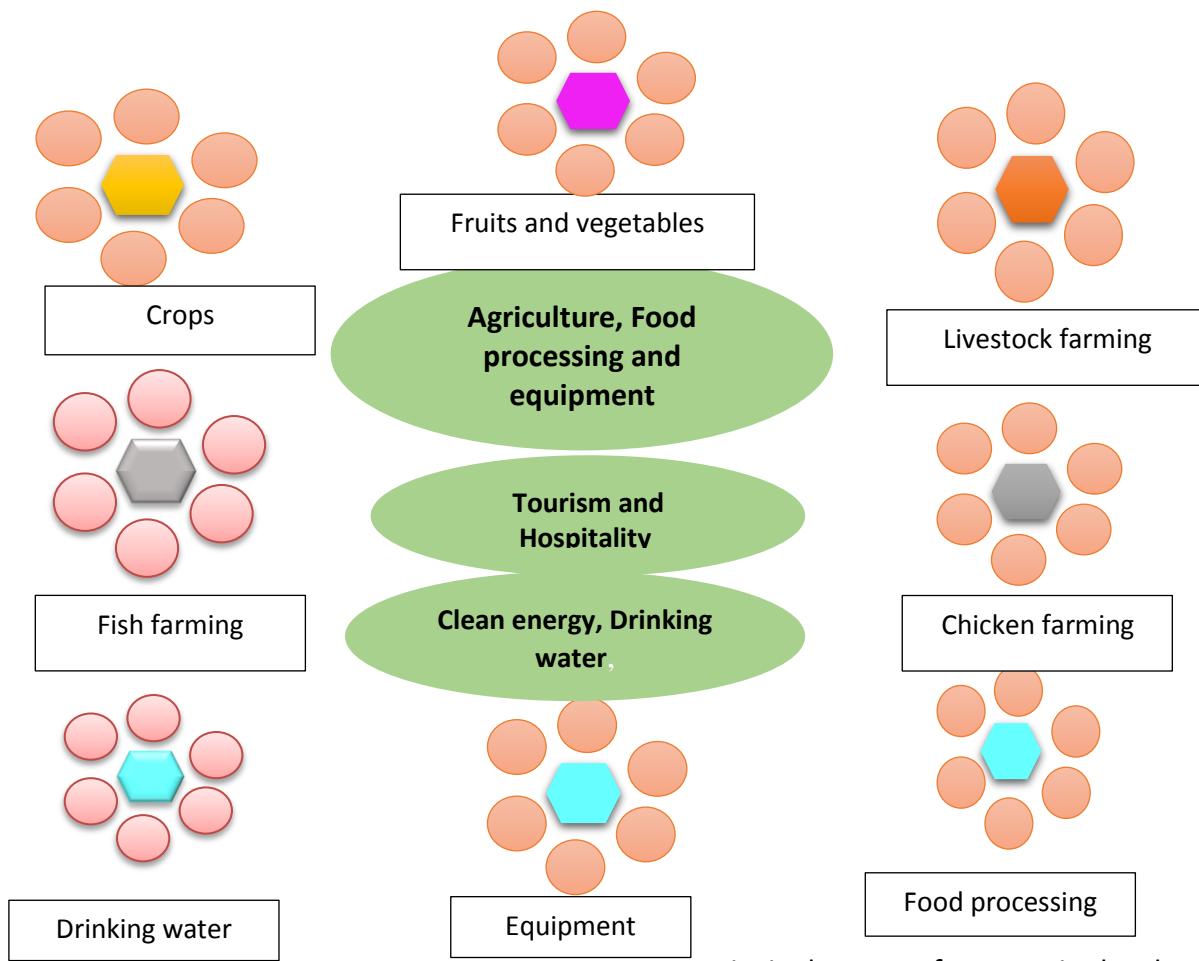
### ***Tourism and hospitality***

Songhai centre prepares and bolsters future employees and leaders in the tourism industry in its own inn and café. Songhai inn gets tourists and businessmen, lecturers, coaches, and learners. The inner café serves the customers of the lodging, the employees and the visitors. The outside restaurant serves the Porto Novo population.

### ***Drinking water***

Clay porous pot filters water into drinking water. The system is used by the students and the staff and also sold in Porto Novo.

#### Exhibit 4: Songhai production pilots model



principal target of economic development is far to be accomplished.

#### The Education Open Incubators (ETOIs) Anchored Cluster Model

Education programs improve youth abilities yet do not create jobs. Programs supporting individual entrepreneurs have a constrained impact. Few of them reach the break even and a small percentage prevails to develop.

The desire that young entrepreneurs will generate jobs for other youngsters isn't genuine (Burchell, Coutts, Hall, and Pye 2015). Youth Entrepreneurship intercessions, for the most part, promote small, necessity enterprises that don't generate jobs and development (Bateman and Chang, 2012).

The IKYA model generates added value for the student agripreneurs and 500 growers from the region only. Songhai model is centered on few potential entrepreneurs. Billions are put resources into education and training, in entrepreneurship programs and the

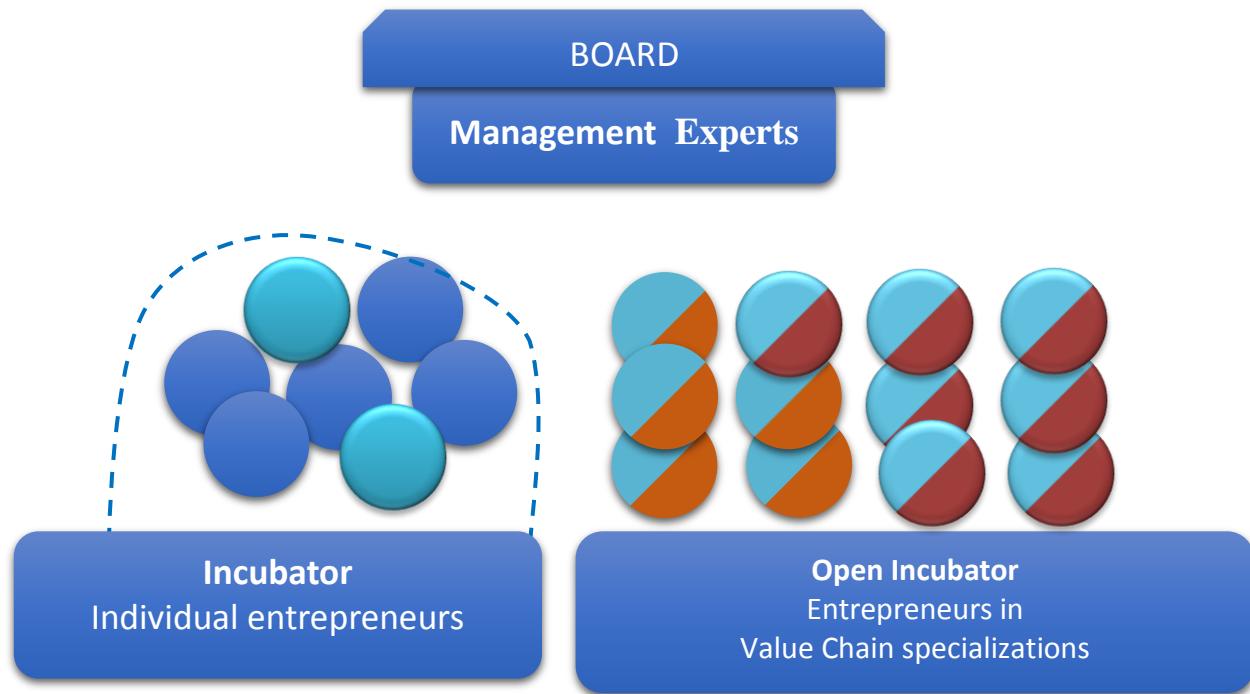
#### *The Open Incubator*

An incubator supports entrepreneurs who are ready to enter into the common location. The number is limited to twenty-thirty. The Open Incubator bolsters entrepreneurs in the location they chose (Exhibit 5). The number could be hundreds and even thousands. The entrepreneurs are chosen by their business potential, their enthusiasm to collaborate with others, and their ability to add to economic development. The Open Incubator supports entrepreneurs along the value chain of a specialization from primary to support activities. Primary activities could be transportation, warehousing, production: distribution. Support activities could be purchasing services, technology transfer or human resources management.

The Open Incubator model can be started by a public or private organization of which the goal is to help and improve the activities of the

entrepreneurs belonging to a determined sector value chain.

### Exhibit 5: Open Incubator



Herewith we propose to interface together academic business education with stakeholders of agriculture value chains in the formal and informal economy.

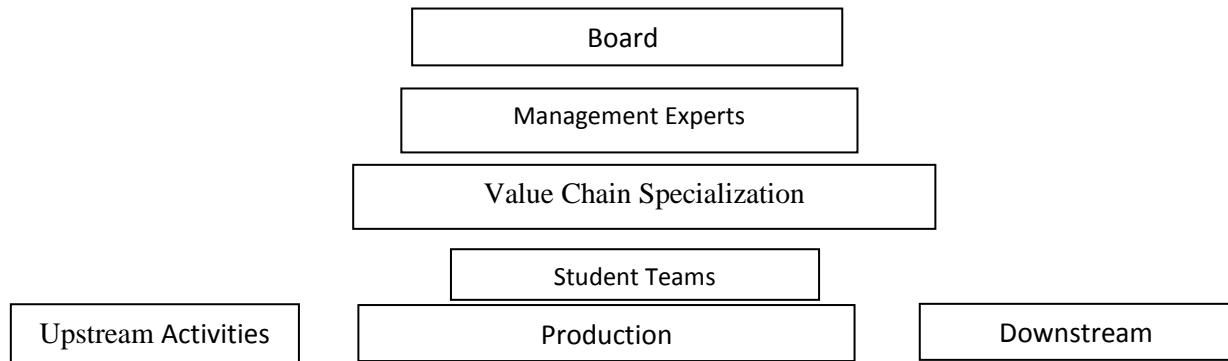
#### ***The Education and Education Open Incubator (ETOI)***

ETOI educates and train students specialized in entrepreneurship, project management and marketing who work in group in an open incubator

supporting entrepreneurs belonging to a common value chain (Exhibit 6).

The ETOIs management supports teams of students, each one is in charge of a group of entrepreneurs. The entrepreneurs improve their knowledge by participating to relevant training organized by ETOIs management. ETOIs board is made by delegates out of the nearby proficient, education, fund and research foundations.

### Exhibit 6: ETOI



The supported entrepreneurs will be more efficient and will be able to create jobs. The students acquire a professional experience and the habit to work in group and share activities and responsibilities. They

will be able to create their own enterprise or to integrate an existing one.

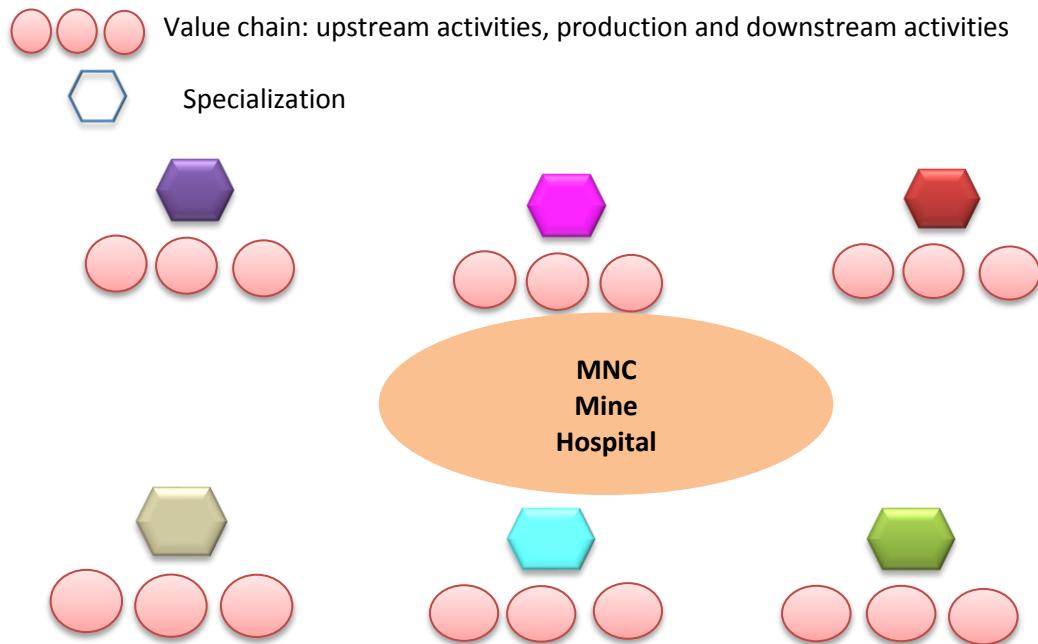
#### ***ETOIs and anchored cluster***

Around an MNC, a mine or a hospital, ETOIs in relevant selected domains could develop a captive

market. Each ETOI is a part of a cluster anchored to the selected big economic structure. At the long run the cluster supports the whole local economy (Exhibit 7).

The domains can be defined around a common raw material such as wood, cotton, milk, meat, fruits or leather, a sector such as agriculture, furniture, electronic, paper or plastic industry or a specialization such as medical supply, healthy food or green products

### Exhibit 7: ETOIs Anchored Clusters



#### ETOIs Anchored Cluster to Kibali Gold Mine

The Institut Supérieur Prince Amani des Sciences de la Logistique et d'Entrepreneuriat (ISPALE), a private scholarly organization in Democratic Republic of Congo (DRC), collaborates with Galilee International Management Institute (GIMI) in Israel and the gold mine, Kibali Barrick Rangold, North East DRC to actualize the ETOIs Food supply moored group model.

#### *The partners*

##### ISPALE

Two years ago started its activities the Institut Supérieur Prince Amani des Sciences de la Logistique et d'Entrepreneuriat (ISPALE) at Tadu, in the province of the Haut Uélé, DRC. ISPALE is an academic institution providing BA in entrepreneurship and logistics.

##### GIMI

Galilee International Management Institute (GIMI), based in northern Israel, offers capacity building courses that go far beyond imparting skills and knowledge.

GIMI teach professionals in both the public and private sectors how to think differently. The programs present experience acquired over the years in Israel, a country world renowned for its innovative approaches, rapid development and esprit de corps.

#### KIBALI Gold Mine

Kibali Gold Mine is situated in the Orientale province of Democratic Republic of Congo (DRC). It is one of the largest gold mines of Africa Congolese (solutions website).

21,000 villagers, many of whom were seeking out a living digging for gold, were moved before excavations began (jones, 2014). Kibali built a town for the villagers called Kokiza,

Kibali Gold Mine started as a joint venture (JV) of Rangold (45%), AngloGold Ashanti (45%) (South Africa) and Sokimo (10%) (DRC government) until the merger with Canadian Barrick Gold Corp. in 2018 (barrack website). The mine tried to support individual growers by microfinance loans but

without any success. The purchasing department of Kibali mine imports most of the required products including mineral water from Uganda.

### SWOT Analysis

The 57 students of the second year in Entrepreneurship and logistic in 2018 and the 20 students in the second year in 2019 oriented a SWOT investigation of the district so as to decide the potential upper hand of the locale as a rule.

The SWOT examination characterized the rich soil, the great atmosphere, the waterways around and the young populace as qualities for creating farming. The absence of energy, knowledge and logistic foundation are characterized as shortcomings. Natural resources of gold, copper, cobalt and diamonds create jobs and local demand of products and services.

Kibali gold mine built a road from Durba to the outskirt of Uganda and two water-driven power stations.

The primary chances of this area are as a supplier of jobs and buyer of merchandise and ventures and the nearby Uganda and Rwanda markets.

The local market is concentrated in Durba city, which develops on account of the presence of Kibali

mines and its nearby employees, contractual employees, and families, expatriate employees and contractors.

The primary shortcomings are the dry season and the negative impact of the Mbororo nomads seeking for feeding their cattle and damaging on their way plantations.

It could be an opportunity for the region. Their experience could benefit of all sides if developed in cooperation with local farmers.

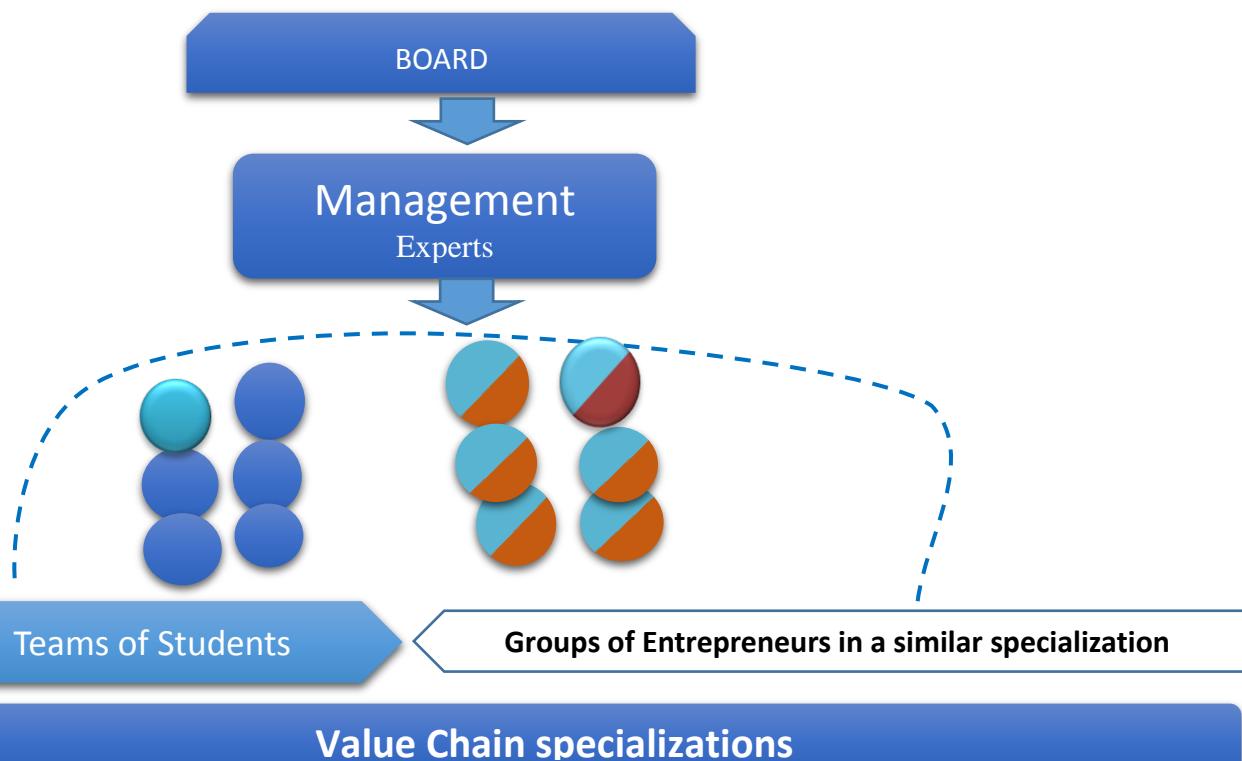
### Kibali market

Local employees are 664 with their family, increase by 6 for every family in normal (5 children in average), around 3984 ostracize representatives, 106, Local contractual employees 3870 and family, 23220 and exile temporary employees, 409, a minimum market size of least of 30,000 individuals (Kibali yearly report, 2018).

The results of the cross analysis of the regional competitive advantage and Kibali gold mine needs, suggested to improve local production in order to compete with the import of Kibali gold mine from Uganda (Exhibit 8).

ETOI student teams cooperate with local growers and entrepreneurs in order to improve the quality and quantity of their products and services in the following domains

### Exhibit 8: ISPALE ETOIs

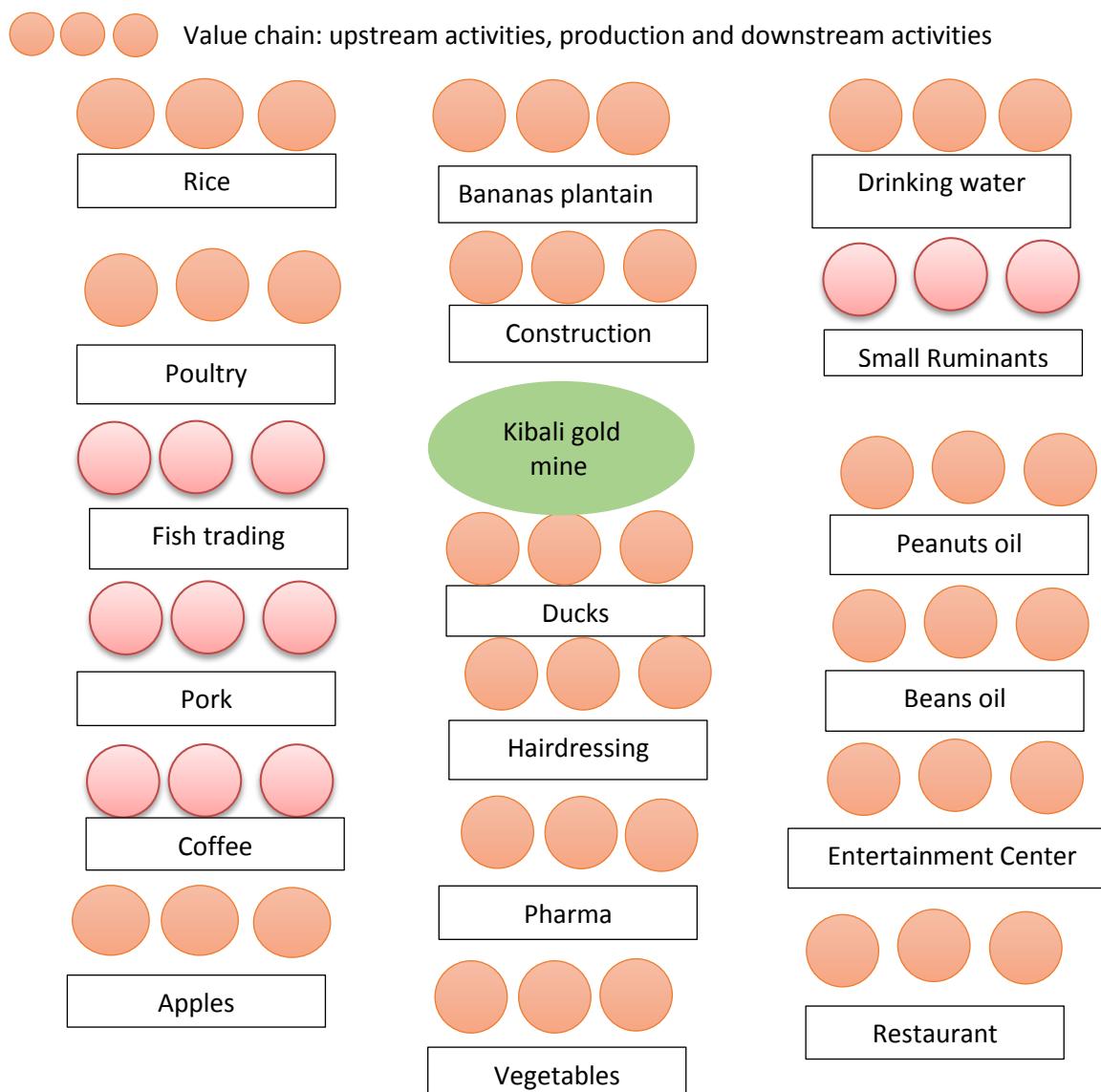


Fish trading  
Peanuts oil  
Rice,  
Bananas plantain  
Construction services  
Drinking water system  
Entertainment center  
Pork  
Poultry  
Ducks

Apples  
Hairdressing  
Coffee  
Pharma  
Small Ruminants  
Restaurant  
Vegetables  
Beans oil

other specializations. Each one of them will be a part of the regional cluster (Exhibit 9).

### Exhibit 9: Cluster of food supply ETOIs anchored Kibali Gold mine.



The ETOIs will be funded in the long run by revenues generated by the development of the employment initiatives of the entrepreneurs.

## CHAPTRÉ VIII

### From Subsistence to Business Behavior

#### Introduction

The majority of small businesses in the developing countries have been created by people that cannot find jobs otherwise. They are subsistence driven and mainly want to earn just enough to live (Frese and De Kruif, 2000) (Olomi, 2001; Rutashobya, 1995). The greater the poverty, the more necessity business there is (Reynolds et al., 2001) (Rosam 2009).

Nearly all of poorest owners of businesses interviewed by Olomi (2001) in his research appeared trapped by their incapacity to find the time to earn sufficient surplus to invest. Evolution from economic necessity appears to be rare (Olomi 2001). It is still unknown when and how entrepreneurs decide to grow and what triggers the desire to grow (Dunkelberg and Cooper, 1982; Kolvereid,1992; Kolvereid and Bullvag,1996 and Kurantko et al, 1997) .

Few years ago the mayor of Songon, a suburb of Abidjan, Ivory Coast, decided to create jobs for unemployed young people and he thought that the lagoons in his region was an opportunity for fish business (Bijaoui, 2012). He succeeded to collect funds in order to invest in a catching fish project from the local lagoon. He purchased pirogues, nets and other relevant equipment. The selected youth started to catch fishes and sold it in the market. But they stopped to catch fishes when they had enough money in order to subsist. Necessity entrepreneurship cannot generate development.

The main generators of business entrepreneurship are ambition, will to cooperate and capability to lead.

#### Motivation for Ambition

Without motivation for ambition to achieve personal and social objectives, there is no interest to earn more what is required in order to subsist. This is a fundamental issue, which block any initiative of development.

Atkinson (1964) defines motivation as the contemporary (immediate) influence on direction, vigor, and persistence of action.

Campbell and Pritchard (1976) suggest that motivation has to do with a set of variable relationships that explain the direction, amplitude, and persistence of an individual's behavior, holding constant the effects of aptitude, skill, and understanding of the task. The three common denominators of those definitions are according to Steer (2004) factors that energize, channel goals oriented, and sustain human behavior over time.

#### *Factors that energize*

Motivation for ambition can be the result of energetic forces within individual driving him to be ambitious. Behavioral scientists started to develop models on instinct theories in order determine the factors that energize. McDougall speaks about an inherited or innate psychological predisposition which determined its possessor to perceive, or pay attention to objects of a certain class, to experience an emotional excitement of a particular quality upon perceiving such an object, and to act in regard to it in a particular manner.

Timmons (1999, 2004) and Bijaoui (2012) in their entrepreneurial reflection emphasize the need of creativity and curiosity opportunity oriented. Curiosity starts with the interest of asking questions and seeking for answers. Creativity transforms those answers into added value for a current or new business. This added value is planned to achieve objectives defined by the entrepreneur as "success". The definition of success differs according to the interest of the entrepreneur, but it has to be defined in advance in order to act according to it.

#### *Goal orientation*

Motivation for ambition is driven by the willingness to achieve goals. Reinforcement models continue to thrive today as explanatory vehicles for understanding work motivation and job performance, as well as in the workplace in various performance management programs (Komaki, 2003).

Content theories identify factors associated with motivation. Maslow (1954) proposed a steady progression over time up a hypothetical hierarchy as individuals grow and mature from physical needs to safety and security needs and social and self-esteem needs to finally self-actualization.

McClelland (1961, 1971) ignored the concept of hierarchy and focused on the motivational potency of distinct levels of self and social actualization as factor to energize. McClelland calls the first level of business entrepreneurship self-actualization objective need for achievement. This level requires personal responsibility, calculated risks, and performance feedback and task accomplishment.

The entrepreneur determines his personal economic and professional objectives and the conditions required in order to achieve it: tasks to accomplish, monitoring of the required performance under conditions of calculated risks. The second level is the self and social actualization objective defined as need for affiliation. The entrepreneur seeks for the approval of the business and social community. He acts in conformity with wishes and norms and he is interested by the feeling of others.

At the third level of self and social actualization objective the entrepreneurs seeks for power need. He leads follower relation, exercise control, take a leadership attitude.

### ***Means sustaining motivation***

#### Financial means

A salary is perceived as the reward for a work during a determined period. Beyond it, if there is not any incentive, people will not do any extra work, propose more efficient processes or possibilities for better business results.

Financial reward for more efficient work, solutions for better efficiency, will motivate people to be more ambitious and open minded to cooperation and leadership. Loans provided to entrepreneurs by governmental, public or international organizations, in order to support their business activities is also an intrinsic mean motivating

entrepreneurs to take risk and develop their own business.

#### Professional means

Professional conditions can motivate both simple workers and specialists. Workers picking fruits and vegetables will do it in a professional and more efficient way, if they acquire some knowledge about it. A fruit or a vegetable continue to live after picking it. Picking conditions must keep the vegetable "sleeping", not any contact with source of energy as sun. For example, longer an avocado is linked to the branch higher will be the percentage of fat and shorter will be its shelf life. Deeper is the knowledge provided to the worker and more efficient will be his work.

A specialist is even easier to motivate by professional conditions such as training, purchasing of professional equipment or transfer of new knowledge.

#### Work conditions

Better work conditions improve work efficiency. Safe working place, meals at work, protection against rain, or chemicals constitute are the primary level of work conditions. The more advanced level is related to free medical insurance or loans for children education.

### **Cooperation and Human Capital**

Timmons (1999) defines two criteria required in order to determine the required human capital. The first one refers to creativity skills. The second one refers to management skills. He defines four fundamental roles requiring different capabilities: Managers, Entrepreneurs, Promoters and Inventors.

#### ***Creativity versus management skills***

Creativity requires curiosity, continuous up dated knowledge and something more: the capability to identify and develop new ideas or more specifically the right idea at the right time. The microwave oven invented by Raytheon was a creative idea but it was developed in 1950, when still a small percentage of women used to work.

At the opposite IPod as a mobile music entertainment device, was a creative idea developed at the right time, when young and less young customers are open to mobile entertainment applications downloaded from internet such as games, video, TV show or songs.

Managerial skills refer to the capability to run a business efficiently by taking the right decision at the right time, by selecting the right people for the right job and by leading and monitoring the different activities in order to achieve the planned objectives with the planned budget at the planned time.

### ***The four fundamental roles***

Each role maybe fulfilled by different persons belonging to different positions and departments. The managers' role insures stability and continuous growth according to planned objectives, budget, timing and performance of each activity. The Managers require high level of management skills, but low level of creativity because creative people think outside the box and so they don't accept, budget, performance or time conditions. They change their mind any time they think creativity. It is the opposite of stability.

The Entrepreneurs in the different positions and department have to be very creative because they have to seek and find improvements generating more value. They will be more outside the firm, meeting customers or specialists in order to propose new ideas. They require also high management skills, because they work in close cooperation with the managers.

The Inventors are in charge of the technical and technological required knowledge and are able to improve the value generated by products and processes. Research centers or international companies specialized in the relevant domains, could play the role of inventors.

The Promoters understand the psychology of the customer and have the relevant network relations in order to push the products into the market. It can be trading companies specialized in the domain and have the trust of the customers.

## **Leadership**

### ***Leadership theory***

The categories of leadership are as follows.

Leadership by Tradition. The leader is by tradition the father in the family, the chief in the village or the king in a country (Brymer and Gray, 2006).

Trait theories of Leadership. Those leadership theories emphasize the personality of the leaders. Leaders are those who are endowed with specific personality traits and or who accomplished actions approved and admired by followers. In politics Mao, Castro, Churchill or De Gaulle. In business, it can be Bill Gates or Ford.

Formal Leadership Function. Leadership function reflects formal positions and the power to direct. The leader is elected or chosen in order to lead a party or a company because of his personal capabilities.

Human Relation Theories. Leadership is focused on relationships and accepted that those being lead also had agency.

Contextual Theories of Leadership. They are considered as leaders those who are able to recognize environmental clues and adapt their behaviors to the context or situation. Illustrations of fifth stage are path-goal theory (Szilagyi & Sims, 1974), Fielder's contingency theory (Fiedler, 1967) and situational theory (Hersey & Blanchard, 1982).

### ***Leadership style***

Blanchard and Hersey (1982) discerned in their research between directive behavior and supportive behavior leader's attitudes. Directive behavior is defined as one-way communication, from the leader to the follower with close supervision.

Supportive behavior is defined as two-ways communication. The leader listens, provides support and encourages, facilitates interaction, and involves the follower in decision-making. Four distinct leadership styles are identified.

Style 1: High Directive/Low Supportive – Autocratic "Directing" leader leads the decision making process and tell to people what to do. They select good executants able to transfer and implement decisions.

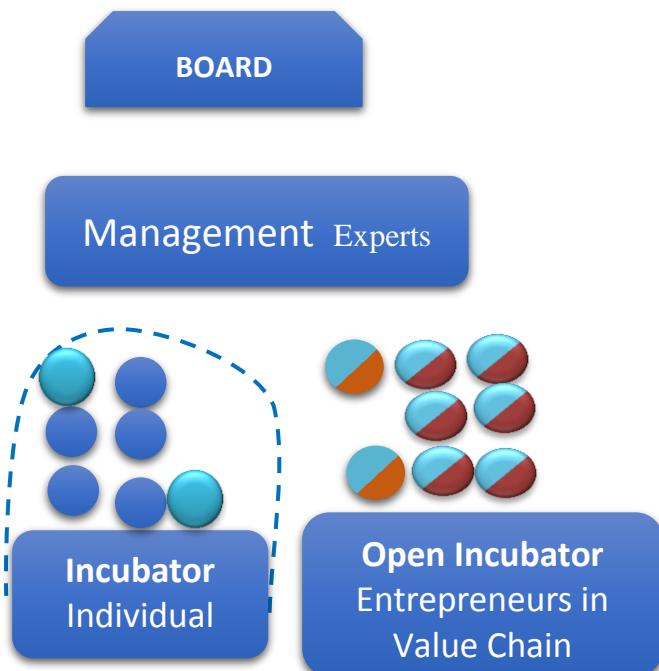
Style 2: High Directive/High Supportive – Democratic "Coaching" leader transfers experience and knowledge to subordinates in order to improve their capabilities and open a two ways communication by hearing ideas and suggestions. But, the leaders finally decide and subordinates execute.

Style 3: Low Directive/High Supportive – Democratic "Supporting" leader shares the decision making process with others and provide knowledge to subordinates in order to delegate power.

Style 4: Low Directive/Low Supportive – Laissez faire "Delegating" leader transfers decision making process and control. He acts as a visionary

and defines rules and long term objectives. The followers implement his philosophy and act as leaders or future leaders.

### Exhibit 1: Open Incubator



Co - leadership between the students and the growers and local entrepreneurs is required, style 3, as a democratic cooperation with transfer of knowledge in order to create a common language. The students will transfer knowledge on entrepreneurship and maybe management. Growers and local entrepreneurs will transfer to the students' knowledge on their specialization.

### Students Profile and behavior

management on thir personal interest and their behavior.

We have selected a random sample of 120 students from the different years and specializations, Entrepreneurship (45), Logistics (60) and ICT (15) (Table 1).

**Table 1: The sample**

Number of students	First year	Second year	Third year	Total
Entrepreneurship	8	19	18	45
Logistics	6	15	39	60
ICT	1	14	0	15
Total	15	48	57	120

In ICT specialization 50% are women, in logistics specializations 22%, and 22% in entrepreneurship (Table 2).

**Table 2: Gender classification.**

Number of students	Men	Women	Total
Entrepreneurship	35	10	45
Logistics	37	13	60
ICT	7	8	15
Total	79	31	120

The parents are farmers for 54% of the students for 32 %r civil servants and for 14% traders and others (Table 3).

**Table 3: Fathers' employment.**

Number of students	Farmers	Civil servant	Traders and others	Total
Entrepreneurship	23	19	3	45
Logistics	34	15	9	58
ICT	6	4	4	14
Total	63	38	16	117

**Table 5: Students main interest.**

0 ...5 level of interest	Productio n	Researc h	Managemen t	Sale s	Tota l
Entrepreneurshi p	2.2	2.9	3.4	3.8	43
Logistics	3.4	2.4	4.7	2.1	57

interested to find a job.

**Table 6: Students intention after studies.**

0 ...5 level of interest	Incub ator work	Incub ator projec t	Find a Job	Continu e study	Famil y busin ess	Own busin ess	N. of S
Entrepreneur ship	2.2	2.6	1.2	2.3	2.4	4.3	45
Logistics	2.0	2.0	2.4	3.0	2.1	3.7	58

**Table 7: Students economic level.**

0 ...5 level of satisfaction	Entrepreneurship	Logistics	ICT	Total
Health	2.8	2.5	4.0	2.9
Entertainment	1.5	1.2	1.9	1.6
Number of students	44	55	8	107

### **Education and Training content**

### **PROJECT MANAGEMENT**

### **SWOT ANALYSIS**

### **Strengths**

In all specializations the students were not pushed to study by their parents. It was their own initiative in order to develop mainly their own business (Table 4).

**Table 4: Reasons for studying.**

0 ...5 level of importance	Parent s	Employmen t	Suppor t parents	Busines s	Tota l
Entrepreneurshi p	0.7	1.9	3.0	4.9	45
Logistics	0.6	2.9	2.5	4.3	60
ICT	1.0	1.6	3.9	4.6	15
	0.7	2.4	2.9	3.8	118

The students were asked about their preferences between four possibilities, production, research, management or sales by quoting from 0 to 5 their level of interest. In entrepreneurship specialization the students prefer sales and management, in logistics, management and in ICT production and research (Table 5).

ICT	3.7	3.7	3.1	2.7	15
	3.0	2.7	3.9	2.8	115

After their studies the students expect to open their own business in all specializations (Table 6). They are less

ICT	2.1	3.0	1.7	2.2	2.7	4.1	12
Total	2.1	2.3	1.9	2.7	2.2	4.0	115

The economic level of the students family is good in food, education and health (around 3 quotation average on 5), but lower in housing (2.4) and very low in leisure (around 1) (Table 7).

Food	3.5	3.4	3.9	3.5
Housing	2.7	2.5	2.9	2.6
Education	3.5	3.5	3.4	3.5

### **Weaknesses**

### **Opportunities**

### **DEFINITION**

Knowledge and Competencies

Identified stakeholders, including the primary target group and the final beneficiaries

Defined coordination, management and financing arrangements

### **OBJECTIVES**

**Vision:** Organization's dream, beliefs and governing principles

**Mission:** Ground your vision in practical terms. action planning process comes in. Key goals.

**Values:** Values created for each stakeholder

### LEVELS

Project, Program, Portfolio

Phase

Activities

Products

### PROCESSES

Initiating

Planning

Implementing

Monitoring and Control

Closing

### BUDGETING

Activity cost estimates

The scope baseline funding constraints

The project schedule

Resource calendars

Contracts for products or services

## INNOVATIVE REFLECTION

### INNOVATION RECOGNITION

Questioning

Observing

Experimenting

Idea networking

Associational thinking

Desire to change the status quo.

### INNOVATION ORIENTATION

Value chain improvement

Product improvement

New product

New demand

### HIGH-LOW HAND INNOVATION

Innovation by and for advanced countries

he second year in entrepreneurship specialization. In our sample we have 76 students who listen the two courses and 44 who did not listen the two courses (Table 8, 9).

Innovation adapted to developing countries

Inclusive innovation

Reverse innovation

### ENTREPRENEURIAL REFLECTION

### ENTREPRENEURIAL PROCESS

Creativity and curiosity

Motivated by the success

Ready to take riskReady to cooperate

Able to identify opportunities

AMBITION

Need for Achievement: Personal responsibility, calculated risks, performance feedback. Task Accomplishment

Need for Affiliation: approval, conform to wishes and norms, interest in the feeling of others

Need for Power: Influence, lead . personal and social power

### THE ENTREPRENEURIAL STAFF

Director, Entrepreneur, Inventor, Promotor

### COMMUNICATION AND CONFLICT MANAGEMENT

External communication that is directed to the actors in the business environment

Internal communication or organizational communication that is directed to employees.

Impact of entrepreneurship and project management courses

Impact of entrepreneurship and project management courses

The courses on entrepreneurship and project management were given to the students in entrepreneurship and logistics specialization in the third year and to the students in t

Table 8: Have listen entrepreneurship and project management course.

Number of students	Second year	Third year	Total
Entrepreneurship	19	18	37
Logistics		39	39
Total	19	57	76

Table 9: Did not listen the course entrepreneurship and project management.

	First year	Second year	Total
Entrepreneurship	8		8
Logistics	6	15	21
ICT	1	14	15
Total	15	29	44

#### *Students profile according to gender*

60% of the student's men have a father who is a farmer compared to 35% for the students women (Table 10).

Table 10: Fathers' employment.

Number of students	Farmers	Civil servant	Traders and others	Total
Men	52	26	8	86
Women	11	12	8	31
Total	63	38	16	117

The economic level of the students women is higher than the students men especially in food, housing and entertainment (Table 11).

Table 11: Students economic level.

0 ...5 level of satisfaction	Men	Women	Total
Food	3.1	4.6	3.5
Housing	2.3	3.5	2.6
Education	3.4	3.5	3.5
Health	2.8	3.1	2.9
Entertainment	1.5	2.2	1.6
Number of students	79	28	107

Students women are more business oriented in choosing their study specialization that students men (Table 12)

Table 12: Origin of students' initiative.

0 ...5 level of importance	Parents	Employment	Support parents	Business	Total
Men	0.7	2.3	2.9	3.6	87
Women	0.8	2.5	2.8	4.3	31
	0.7	2.4	2.9	3.8	118

But their decision after the studies is less affirmative about creating their own business than students' men (Table 13).

Table 13: Students intention after studies.

0 ...5 level of interest	Incubat or work	Incubat or project	Find a Job	Contin ue study	Family busines s	Own business	Number of students
Men	2	2.7	1.7	2.6	2.3	4.3	87
Women	2.7	2	2.4	2.8	2	3.1	28
Total	2.1	2.3	1.9	2.7	2.2	4.0	115

Students' women are production minded and less sales minded than students' men (Table 14).

Table 14: Students main interest .

0 ...5 level of interest	Production	Research	Management	Sales	Total
Men	2.8	2.8	3.9	2.9	84
Women	3.5	2.6	4.0	2.5	31
	3.0	2.7	3.9	2.8	115

#### *Statistical analysis*

We have defined a dependent variable called Entrep: 1 for students who did not listen the two courses and 2 to those who listen the courses and Y, year of study (1,2,3)

The independent parameters defined are as follows:

S specialization 1 entrepreneurship, 2 logistics, 3 ICT  
 ip production interest  
 ipr research interest  
 ipg management interest  
 ipv sales interest  
 oc expect to work  
 ion the incubator  
 op expect to open a business in the incubator  
 os expect to find a job  
 oe expect to continue to study  
 of expect to support business family  
 ob expect to open a business

Herewith the statistic results:

Y is correlated statistically (5%) with Entrep, ipg, oc and os

Entrep is correlated statistically (5%) with Y, ipv, oc, os and of

ipg is correlated statistically with ipr, y, oc, op, os and ofob and oc

op is correlated statistically with ipp, ipg, ob, oc, os of and oe

os is correlated statistically with Entrep, Y oc, op, of, ipg, ipr and ob

		Correlations											
		year	Entrep	Ob	Os	Of	Oe	Oc	S	Ipg	Ipp	Ipv	Ipr
year	Pearson Correlation	1	.761**	-.088	.426**	.211*	.073	.204*	-.009	.253**	-.030	-.017	.079
	Sig. (2-tailed)			.000	.347	.000	.023	.440	.029	.921	.006	.749	.853
	N	120	120	115	115	115	115	115	120	118	118	118	118
Entrep	Pearson Correlation	.761**	1	-.060	.278**	.252**	.097	.176	-.471**	.129	.052	.164	.071
	Sig. (2-tailed)			.000	.521	.003	.007	.300	.061	.000	.162	.574	.076
	N	120	120	115	115	115	115	115	120	118	118	118	118
Ob	Pearson Correlation	-.088	-.060	1	-.047	.186*	-.197*	.008	-.095	.000	.277**	.274**	.155
	Sig. (2-tailed)			.347	.521		.047	.035	.932	.311	1,000	.003	.003
	N	115	115	115	115	115	115	115	115	113	113	113	113
Os	Pearson Correlation	.426**	.278**	-.047	1	.300**	.132	.231*	.193*	.263**	.048	-.123	.281**
	Sig. (2-tailed)			.000	.003	.617		.001	.160	.013	.038	.617	.195
	N	115	115	115	115	115	115	115	115	113	113	113	113
Of	Pearson Correlation	.211*	.252**	.186*	.300**	1	.124	.395**	-.006	.168	.263**	.275**	.515**
	Sig. (2-tailed)			.023	.007	.047	.001		.187	.000	.945	.076	.005
	N	115	115	115	115	115	115	115	115	113	113	113	113
Oe	Pearson Correlation	.073	.097	-.197*	.132	.124	1	.510**	.054	.208*	.180	.057	.200*
	Sig. (2-tailed)			.440	.300	.035	.160	.187		.000	.569	.027	.057
	N	115	115	115	115	115	115	115	115	113	113	113	113
Oc	Pearson Correlation	.204*	.176	.008	.231*	.395**	.510**	1	.024	.280**	.317**	.282**	.353**
	Sig. (2-tailed)			.029	.061	.932	.013	.000		.800	.003	.001	.000
	N	115	115	115	115	115	115	115	115	113	113	113	113
S	Pearson Correlation	-.009	-.471**	-.095	.193*	-.006	.054	.024	1	.060	-.144	-.288**	.019
	Sig. (2-tailed)			.921	.000	.311	.038	.945	.569	.800	.516	.121	.002
	N	120	120	115	115	115	115	115	115	118	118	118	118
Ipg	Pearson Correlation	.253**	.129	.000	.263**	.168	.208*	.280**	.060	1	.000	-.033	.236*
	Sig. (2-tailed)			.006	.162	1,000	.005	.076	.027	.003	.516		.725
	N	118	118	113	113	113	113	113	118	118	118	118	118
Ipp	Pearson Correlation	-.030	.052	.277**	.048	.263**	.180	.317**	-.144	.000	1	.357**	.316**
	Sig. (2-tailed)			.749	.574	.003	.617	.005	.057	.001	.121	.998	.000
	N	118	118	113	113	113	113	113	113	118	118	118	118
Ipv	Pearson Correlation	-.017	.164	.274**	-.123	.275**	.057	.282**	-.288**	-.033	.357**	1	.357**
	Sig. (2-tailed)			.853	.076	.003	.195	.003	.549	.002	.725	.000	.000
	N	118	118	113	113	113	113	113	113	118	118	118	118
Ipr	Pearson Correlation	.079	.071	.155	.281**	.515**	.200*	.353**	.019	.236*	.316**	.357**	1

Herewith the results of regressions, Year, Entrep, Op and Os as a dependent variable and the second one with Entrep as a dependent variable.

Years of studies as a dependent variable

Higher is the year of study (year) and more management (ipg) and sales (ipv) activities are emphasized as preferable to production activities. The students integrate, due to the studies, the importance of those activities in order to improve their chances to develop a business or find a job.

There is a growing positive impact of the courses on entrepreneurship and project management over years: Entrep is positively related to year because the higher classes are studying this domain.

Adjusted R square is .639. Variables Entered			
Model	Variables Entered	Variables Removed	Method
1	Os, Ipv, Ipg, Entrep <sup>b</sup>	.	Enter
a. Dependent Variable: year			
b. All requested variables entered.			

Model Summary					
Model	R	R Square	Adjusted R Square	R	Std. Error of the Estimate
1	.807 <sup>a</sup>	.652	.639	.422	
a. Predictors: (Constant), Os, Ipv, Ipg, Entrep					

ANOVA <sup>a</sup>					
Model		Sum of Squares	df	Mean Square	F
1	Regression	35.982	4	8.996	50.498
	Residual	19.239	108	.178	
	Total	55.221	112		
a. Dependent Variable: year					
b. Predictors: (Constant), Os, Ipv, Ipg, Entrep					

Coefficients <sup>a</sup>					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1	(Constant)	.409	.166		2.464 .015
	Ipg	.054	.025	.128 2.180	.031
	Entrep	1.052	.088	.724 11.962	.000
	Ipv	-.042	.021	-.120 -2.036	.044
	Os	.062	.022	.172 2.780	.006
a. Dependent Variable: year					

### Entrepreneurship studies as a dependent variable

The students who studied entrepreneurship (Entrep) are more sales (ppv) minded than those who did not study entrepreneurship. Adjusted R square is .599.

Variables Entered			
Model	Variables Entered	Variables Removed	Method
1	year, Ipv <sup>b</sup>	.	Enter
a. Dependent Variable: Entrep			
b. All requested variables entered.			

Model Summary						
Model	R	R Square	Adjusted R Square	R	Std. Error of the Estimate	
1	.778 <sup>a</sup>	.606	.599	.30751		
a. Predictors: (Constant), year, Ipv						
ANOVA <sup>a</sup>		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	16.719	2	8.359	88.404	.000 <sup>b</sup>
	Residual	10.874	115	.095		
	Total	27.593	117			
a. Dependent Variable: Entrep						
b. Predictors: (Constant), year, Ipv						

Coefficients <sup>a</sup>						
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	.266	.108		2.469	.015
	Ipv	.042	.014	.177	3.021	.003
	year	.532	.041	.761	12.999	.000
a. Dependent Variable: Entrep						

### Intention to develop a project (Op) in the incubator as a dependent variable

The students who want to develop a project in the incubator want also to work as employees (Oc) in the incubator in the intention to develop their own business (Ob). Adjusted R square is .285.

Variables Entered						
Model	Variables Entered	Variables Removed	Method			
1	Ob, Oc, Os, Of <sup>b</sup>	.	Enter			
a. Dependent Variable: Op						
b. All requested variables entered.						
Model Summary						
Model	R	R Square	Adjusted R Square	R	Std. Error of the Estimate	
1	.557 <sup>a</sup>	.310	.285	.1.858		
a. Predictors: (Constant), Ob, Oc, Os, Of						

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	168.997	4	42.249	12.240	.000 <sup>b</sup>
	Residual	376.240	109	3.452		
	Total	545.237	113			
a. Dependent Variable: Op						
b. Predictors: (Constant), Ob, Oc, Os, Of						

Coefficients <sup>a</sup>					
Model		Unstandardized Coefficients		Standardized Coefficients	
		B	Std. Error	Beta	t
1	(Constant)	-.003	.476		-.006
	Oc	.341	.094	.318	3.640
	Os	.192	.096	.171	1.998
	Of	.217	.099	.200	2.186
	Ob	.205	.098	.172	2.100

a. Dependent Variable: Op

		B	Std. Error	Beta		
1	(Constant)	-.3413	.939		-3.634	.000
	Entrep	1.655	.374	.409	4.429	.000
	S	1.159	.276	.385	4.204	.000
	Op	.237	.073	.266	3.227	.002

a. Dependent Variable: Os

### To find a job (Os) as a dependent variable

The students who want to find a job after their studies have studied entrepreneurship (Entrep) and want to start to develop a project (Op) in the incubator after their studies.

Variables Entered				
Model	Variables Entered	Variables Removed	Method	
1	Op, S, Entrep <sup>b</sup>	.	Enter	
a. Dependent Variable: Os				
b. All requested variables entered.				

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.515 <sup>a</sup>	.265	.245	1.696
a. Predictors: (Constant), Op, S, Entrep				

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	114.135	3	38.045	13.230	.000 <sup>b</sup>
	Residual	316.330	110	2.876		
	Total	430.465	113			

a. Dependent Variable: Os  
b. Predictors: (Constant), Op, S, Entrep

Coefficients <sup>a</sup>				
Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.

## CONCLUSION

Jobs and entrepreneurship supporting the economic development of a district or a country cannot be created by programs focused on individual entrepreneurs only.

Our model proposes to care groups of understudies/learners working together for improving the successfulness of businesses along ETOIs value chains around an anchored cluster.

More efficient couples entrepreneurs and businesses will diminish the percentage of failure and create more value. The students (entrepreneurs) could be involved in logistic, marketing and sales activities and in the upgrading of the production of businesses.

The acquired experience will serve them to develop their own business and create new jobs or to be hired by an existing enterprise.

Each ETOI in the cluster anchored to Kibali gold mine will be at the long run a regional specialized cluster.

Thousands of jobs and entrepreneurs in each value chain will move the agriculture and the other sectors represented from the necessity to business level generating sustainable economic development.

Higher is the year of study, and more the students are interested by management and sales activities.

The students who want to develop a project in the incubator want also to work as employees in the incubator. Their intention is to develop their own business.

The students who want to find a job after their studies have studied entrepreneurship and want to start to develop a project in the incubator.

Pragmatic courses on entrepreneurship and project management implemented on projects chosen by the students have a positive impact on their entrepreneurial and managerial behavior.

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## Jobs and Entrepreneurship for Youths in Sub-Saharan Africa Nations ISPALE- GIMI - KIBALI model, DRC

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