



Zürich, May 30, 2022

## **Introduction to The African Association for Vertical Farming (AAVF)**

Focusing on advancing the growth of urban agriculture in Africa while spreading awareness of sustainable approaches to developing modern agricultural practices, the African Association for Vertical Farming (AAVF) is an internationally active non-profit organization comprised of individuals, companies, research institutions and universities that connects with interested parties all over the world to build a strong community in order to assist Africa in its quest for secure and sovereign food production.

### **The AAVF Four Pillars:**

#### **1-Agri Business**

Promoting the success of African farmers by connecting them to markets in and outside of Africa.

#### **2- Agriculture, Education and Training**

With our Education and Training Department, we develop skills for youth and women to start growing local food sustainably. We organize Agroecology workshops in Africa for young farmers in topics such as good agriculture practices, controlled grazing systems, Integrated Pest Management, conservation tillage, crop rotation, mulching, cover crops, water use efficiency and soil nutrient management. We also introduce alternative ways of production to smallholder farmers.

#### **3) Research, Development & Technology in Agriculture**

The AAVF presents, trains and advocates modern farming, state of the art technologies and methods as tools to galvanize the agriculture industry; and encouraging African farmers to stay in the industry and help revolutionize it.

#### **4) Humanitarian Support (Youth and Women Empowerment through sustainable agriculture)**

Our platform is tied to the Youth & Women of Africa in agriculture. Supporting their effort so that agriculture, using modern but easy to manage technologies that are made in their



country, by them and for them, can be seen as an empowering tool for better yields thus economical elevation for the communities.

Our **Mission** is to improve food security by educating youth and women in Africa with innovative practices to alleviate Africa 's growing population, urbanization and climate change challenges.

### **WHY AAVF? WHY SMART FARMING/VERTICAL FARMING? WHY FOOD SECURITY?**

In Africa, poverty contributes to a number of challenges within communities. For long, it has contributed to malnutrition among children, inability to access quality education among youths and children, poor housing, crime and violence, among others. Agriculture is a leading contributor to poverty reduction. Identifying ways to increase the productivity of farms is crucial to ensuring food security, increasing farmer income, and alleviating poverty.

Increasing food demand due to a growing population along with ever decreasing arable lands poses one of the greatest challenges facing us. We believe that Smart farming including Vertical Farming can be the answer to this challenge.

Vertical Farming is the practice of producing food on vertically inclined surfaces. Instead of farming vegetables and other foods on a single level, such as in a field or a greenhouse, this method produces foods in vertically stacked layers commonly integrated into other structures like a skyscraper, shipping container or repurposed warehouse.

### **Action and Impact**

AAVF acknowledges that Vertical Farming in its current state can provide access to fresh, safe, and sufficient food, independent of climate and location. However, given the intensity of capital required coupled of support infrastructure, Vertical Farming has to be modeled in a way that it can work for African communities. At the AAVF we have successfully implemented workable vertical farms in the continent using available material and taking cognizant of electricity challenges among others. To be able to spread the knowledge and modern styles of farming, we are rolling out community outreach programs in several



countries in Africa with the goal of training the community on modern and climate-smart agriculture with material found in their countries for sustainability.

**The AAVF Vertical Farming Academy** thrives to empower as many people as possible to get into the wondrous world of **Smart-Agriculture**. By disseminating climate-smart agriculture techniques within the community, our programs harness the skills of vulnerable communities in order to advance their development through job creation and self-reliance while promoting food security.

Our outreach programs are tailored to cover simple nursery management techniques, crop husbandry, value additions, produce storages, marketing, pitching ideas and innovations, among others. With these modern techniques, entire communities learn how to survive and thrive, countless jobs are created, and families' conditions improved.

The AAVF uses a community-based approach to really understand the needs of each community. Our facilitators assess the needs by involving community stakeholders in the process, and together we find sustainable and equitable solutions to address such needs.

As we develop the African network, we also believe that there must be a humanitarian aspect to our endeavors. Our vision is to leave no one behind. Thus, we also work with children with special needs such as autism, to teach them agricultural skills in a society where they are often not accepted.

### **Target Groups**

#### **Women**

Closing the gender gap in agriculture can have a transformational impact on women's lives and can unleash substantial development that co-benefits such as gender equality, food security, and climate action.

Compared to men, women in Africa are still more severely affected by poverty, hunger, and disease. When food is scarce, female family members often get the smallest portions. On the labour market, women are paid starvation wages. They also suffer the most from a lack of medical care and balanced diets.



For these reasons, the African Association for Vertical Farming (**AAVF**) proposes to train women in Africa agriculture using technology (Smart Agriculture). Empowering them to produce their own food independently and sustainably.

The training content is tailored to best suit the needs of the groups which includes cost, space, productivity, water use, nutrition as well as the seasonality of food. In doing so, many problems the women face are mitigated hence empowerment.

Consequently, the training is poised to increase women farmers' access to climate-smart information, increase women farmers' access to finance to invest in climate-smart agriculture, and finally Increase women farmers' access to higher-added value markets.

### **Youth**

Africa is experiencing growth in educated young people. However, the rapid increase in population coupled with a high influx of refugees from neighbouring countries has put Africa in enormous pressure on its agriculture sector thus is worsened by the declining number of youths engaged who aspire to pursue agriculture- related professions or careers. Presently indicating the average age of a farmer to be 60 years old.

Should the above continue, ensuring the availability of enough safe and nutritious foods for all of its inhabitants will remain a big challenge for Africa.

Smart farming presents a new array of opportunities on its Agri value chain. From technology infrastructure, artificial intelligence, value addition among others. These are areas that most likely youths will be keen to take interest in. The AAVF intends to share these opportunities to the youth through partnerships, collaborations as well as providing Information sessions as well as engaging with training institutions to introduce smart agriculture including vertical farming, drone technology for agriculture, sensors etc.

The **AAVF** mainly plays a **CATALYTIC** role in accelerating the practise of Smart Farming in Africa. Initially responsible for setting up centres, training curriculum for this practise in partnerships with local universities, institutions & organisations.

The goals of these trainings include: -

- Teaching Vertical Farming and allowing as many Youths as possible in Africa to get into the exciting world of Smart Agriculture.
- Knowledge sharing on innovations & modification of Vertical Farming Technologies for African Context.



- Offer modified Vertical Farming solutions to fit Africa with its own challenges such as access to electricity, water, skills.
- Demonstration /Illustration on various Vertical Farming Technologies.
- To develop & provide training courses for the emerging professional profile. This will include the Agri-graduates who need an additional training around Vertical Farming.
- To Up-Skill existing Farmers with interest to venture into the Vertical Farming space.
- To create job opportunities especially for the youth along the entire value chain of Vertical Farming including supplies of equipment, technologies, space leases/property, high value crop markets, logistics, farming, training, medicinal etc.

### **Our Work:**

Having a great understanding on how Africa functions, AAVF has been able to adopt these smart farming technologies to suit Africa. We are able to design solutions specifically to suit the continent taking consideration of locally available materials (decrease cost of infrastructure), skills available, use of renewable energy alternatives etc. We are therefore able to offer cost effective solutions that are easy to learn and adopt.

The AAVF also understand that Climate change has greatly affect food production in the continent. We also know that Vertical Farming may not be a solution to the entire continent and therefore we are available to offer a variety of Agriculture solutions including

- soil fertility solutions
- integrated pesticide management
- Irrigation
- Complimentary crop farming

Our approach generally starts with us trying to understand the 'status' of farmers or aspiring farmers through information session, where we do a fact finding approach or situation analysis. Report for Situation analysis will give us an idea of the style to approach during training. Our training approach comes in different ways depending on what is needed by clients.





- Information sessions
- Workshops
- Seminars
- Demonstrations of Smart Agri solutions that are customised to suit the African continent taking into account our existing challenges such as infrastructure, affordability, skills and costs
- In-class learning
- Practical's





Attached you will find a few pictures of our work,

**#HeroesNourishingAfricaDuringCovid-19**



**African Association for Vertical Farming  
(AAVF), Kenya**



AAVF is a formal association comprising of individual urban farmers, SMEs, research institutions and corporations working toward a sustainable future of farming in Africa. Since the lockdown commenced in Kenya, AAVF's normal registration and information emails have quickly turned to an agriculture helpline. AAVF staff have found themselves giving free telephone DIY vertical farming training, bringing sleeping gardens to fully operational food production systems in the past weeks.



"AAVF's core values are driven by selflessness, UBUNTU and conviction that food is seasonal while hunger is not. Therefore, even as we go through this period of despondency created by the COVID-19 pandemic, we should embrace the spirit of sharing and all in all enfolding brotherhood."

- Peter Nyateng, AAVF Kenya Coordinator.







## **Introduction to the AAVF Training Programs**

The AAVF has the following training programs in place. We believe that every situation is different and therefore we will be able to design suitable programs specific to the needs of farmers on the ground.

The Africa Association for Vertical Farming - **VERTICAL FARMING TRAINING COURSES**

### **1. AAVF SKILLS RETOOLING TEST (Where you fit in Agriculture) - Fee: TBA**

### **2. BASIC PACKAGE**

**Prerequisite:** AAVF Skills Retooling Test

**Duration:** 4 days

Course work;

1. Vertical Farming Technology
2. Mechanization
3. Modern Farming Skills
4. Climate Change
5. Sales and Marketing

### **Objectives**

By the end of this training, participants should be able to understand;

1. Climate Change and its effect on Food Security.
2. Different techniques of Vertical Farming and their Management.
3. How to write a good Business Plan for Farming Business (Agriprenurship)



4. Integrated Pest Management (IPM)
5. Agricultural Produces Value addition, Branding and Storage.
6. Realize self-skills that are visible to the job market

### **Coursework schedule**

#### **Day 1.**

- Introduction to Climate Change and its effect on Food Security.
- Vertical Farming Theory.

#### **Day 2**

- Agricultural Sales and Marketing
- Business Plan
- Sustainable Development Goals

#### **Day 3**

- Vertical Farming Practicals
- Hydroponics, Aquaponics and Aeroponics Technology
- Integrated Pest Management
- Agricultural Produce Storage

#### **Day 4**

- Agricultural produces value addition
- Branding
- Costing and pricing



**Fees: USD TBA**

### **3. PREMIUM PACKAGE**

**Prerequisite:** Pilatest- Skills Retooling Test

**Course work;**

1. Vertical Farming Technology
2. Mechanization
3. Modern Farming Skills
4. Climate Change
5. Sales and Marketing
6. Packaging and Value Addition
7. Disaster Management

### **Objectives**

By the end of this training, Participants should be able to understand;

1. Climate Change and its effect on Food Security.
2. Environmental Impact Assessment
3. Techniques of Vertical Farming and their Management.
4. How to write a good business plan for Farming Business
5. Integrated Pest Management (IPM)
6. Agricultural Produces Value Addition, Branding and Storage.
7. Agricultural Digitalisation (i.e Automation).



8. Realize self-skills that are visible to the job market

### **Coursework schedule**

**Duration: 4 weeks**

#### **Week 1.**

- Climate Change and Environmental Impact Assessment
- Vertical Farming Technology
- Artificial Intelligence

#### **Week 2.**

- Business Plan
- Vertical Farming Technology Practical
- Integrated Pest Management

#### **Week 3.**

- Agricultural Marketing and Fund-Raising Processes
- Agricultural Products Costing, Pricing and Sales
- Agriculture and its contributions to SDGs

#### **Week 4**

- Agricultural Produces Value Addition
- Storage
- Branding

**Fees: USD TBA**





#### 4. CUSTOMISED PACKAGE

**Prerequisite: AAVF Skills Retooling Test - Fee: USD TBA**

**Duration: Customised**

The full immersion course is structured for executives, university graduates or students who do not have time to follow the basic course premium. This course will allow student to follow a short course program that combines classic teaching methods with a tailor - made approach.

**Fees: USD TBA Session/per person**

**ALL our Courses are both Practical (Hands-On) & Theoretical**

**AAVF CERTIFICATE**

**ALL our Participants will leave with a certification after completion of the course program.**

**Some of our Partners:**



World Food Convention





The **AAVF Partner List** is growing each year. We count until present over 200 Partners and 2000 members from the Agriculture Industry, Universities, Research Institutions, Private Schools and Private sectors or individuals learning the Smart Agriculture methods with us.

**Contact:**

Josephine Favre  
President

**The African Association for Vertical Farming (AAVF)**

Website : [www.aavf.ch](http://www.aavf.ch)

LinkedIn : <http://linkedin.com/in/josephine-favre-58b67092>



AFRICAN  
ASSOCIATION FOR  
VERTICAL FARMING