

# **Book of Abstracts**

## **1<sup>ST</sup> EASTERN AFRICA AGROECOLOGY CONFERENCE**

Transforming Food  
Systems for Responsible  
Production, Consumption  
and Social Wellbeing

March 2023

## Innovative Agroecology and Agrobiodiversity Training Course (AATC) for undergraduate students

*Prof. Richard Onwonga - University of Nairobi; Dr. Janeth Chepkemai - University of Nairobi; Mr. Noel Templer - International Center for Tropical Agriculture - CIAT*

The Agroecology and Agrobiodiversity Training Course (AATC) develops an in-depth understanding of the principles and practices of Agroecology and Agrobiodiversity (AA), and their applications in the context of practitioners, researchers and policymakers in the agriculture sector (OA). It seeks to strategically contribute to the value system of AA and OA in the agricultural policy and practice in Kenya with the aim of creating a paradigm and mind shift in university students. In the year 2022, about 40 students from Kenyan universities (University of Nairobi (12), JKUAT (7), University of Eldoret (8), University of Kabianga (7), Kenyatta University (1), Egerton University (1), Kibabii University (2), and Maseno University (1) and one each from Uganda Martyrs university and Makerere university (Uganda). The theme of AATC was : Food crisis, climate change and sustainability: do we have alternative solutions? The aim of AATC was to create change agents who would contribute to innovative sustainable development of agri-food systems to enhance livelihoods, food security and environmental integrity.

### **Methodology**

The AATC employed a four (4) -step approach: i) e-learning ii) classroom sessions iii) field excursion iv) report development and public presentation. This undertaking relied on mixed methods of knowledge delivery i.e. individual reflections, literature reviews, classroom setting (presentation, discussions), field exposure, and knowledge exchanges (with farmers, practitioners, academia/specialists) and policy makers.

### **Results & Discussion**

1. E-learning: In this phase, the students were introduced to the concepts of AA, food systems, climate change, and sustainability. Through reading materials, animated movies, and videos provided, students were able to contextualize threats and vulnerabilities faced by food systems due to climate change and the loss of biodiversity.
2. Class setting and Organic practitioners' visit: During this phase, the students building on the knowledge gained in phase one were further exposed on the principles and practices of agrobiodiversity and agroecology through participatory sessions. The sessions also integrated policy processes and how to approach agroecosystem health assessments. Visits to organic practitioners: producers, traders, and certification agencies.

3. Field excursions and data collection: This phase involved practical and experiential learning of different agroecological and agrobiodiversity principles and practices under the guidance of selected practitioners in the agroecology and agroecology value chain for practicals on the preparation of organic fertilizers and organic pest and disease control measures, and other techniques in AA.
4. Feedback and Workshop: It brought together various stakeholders, in the food system supply chain sector, for result sharing on the agroecosystem assessments and experiential learning. It was a learning experience for the students on reporting research finding, dissemination and interaction with stakeholders.

### **Conclusion**

Through a transdisciplinary training approach, students from different food chain sectors, were exposed to the principles and practices of AA and their application in real in real life situations. The students demonstrated a mental shift towards a food system approach. In the students' setting, understanding deeply why farming had to be done sustainably had often lacked the grounding with facts and contextualization. In the world of policy and decision-makers, for instance organic agriculture/Agroecology feeding the world should be backed by facts - and this could only be collated by discussing and revisiting their source. Organic growth of ideas from alumni following participation in "eye-opening" sessions was an impetus for continued engagement and scaling.

### **Keywords**

Agroecology; Agrobiodiversity; Sustainable development; Organic agriculture; Food systems; Transdisciplinary approach

### **Biography - Richard Onwonga**

Prof. Richard Onwonga, holds: a PhD in Natural resource Management and Currently an associate professor at the University of Nairobi. Has wide research and publication experience on application of agroecological techniques to enhance agricultural productivity under varied environments. Trains/mentors and supervises students on agroecology and agrobiodiversity for sustainable agrifood systems.

**Track:** Abstracts for papers, posters and exhibition

**Student Id (optional):** 4RICHARD\_ONWONGA\_IAATC\_EAAC\_\_1\_.pdf

**Decision:** Oral

**Submission ID:** 351