

# FSBA – Food Security and Biotechnology in Africa



FSBA mid-term meeting in Burkina Faso.

## PROJECT IMPLEMENTATION PERIOD

September 2013 – February 2017

## CONSORTIUM

- University of Groningen, The Netherlands
- University of Eldoret, Kenya
- University of Nigeria, Nigeria
- University of Ouagadougou, Burkina Faso

## Associated partners:

- African Biosafety Network of Expertise (ABNE), Senegal

## PROJECT CONTACT

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## PROJECT WEBSITE

[www.rug.nl/fwn/edulink-fsba](http://www.rug.nl/fwn/edulink-fsba)

## SUMMARY OF RESULTS

The education and outreach capacity of the African partner Higher Education Institutions in agricultural biotechnology has been strengthened through the development of 120 hours of Master's level courses, 3 outreach workshop programmes and 3 country policy briefs. Project management and financial administration skills of the African partners were strengthened by in-house training and guidance in writing project progress reports.

## BACKGROUND

Improving the food security situation in Kenya, Nigeria and Burkina Faso is necessarily a long-term process that requires policy changes, technological investments, as well as (most importantly) a change in perception of local populations (producers and consumers) on the use of biotechnology in food production.

The project, therefore, aimed to provide independent fact-based knowledge of all aspects of the use of biotechnology in agriculture: historical, technical, political, regulatory and ethical.

## METHODOLOGY

The adopted two-legged approach consisted of formal and informal contacts with a wide range of local stakeholders in the target countries and frequent contacts with scientists working in the same field in the partner and other institutions.

### Joint curriculum development and elaboration of outreach workshop programmes

Six new Master's level courses of 20 hours were developed on the sustainable application of biotechnology in African food production. The courses were taught fully or partially in each African partner Higher Education Institution (HEI), embedded in

the wider university curricula. They have been made available to the wider (academic) public by placing them on an open website in French and English.

### Organise stakeholder meetings and other outreach events

Stakeholders in food production and the sustainable use of biotechnology were consulted in order to gear the course content to those food security issues that prevail in their daily practice. Also, outreach events were organised, and students visited rural areas, stakeholder organisations, genetically modified organism (GMO) testing institutes and containment facilities. During stakeholder meetings with media coverage the prospects for sustainable biotechnology were presented and discussed by the partners' staff, student representatives, and a selection of the target countries' most prominent actors in the food security and biotechnology field.

### Produce outreach materials

Outreach materials have been developed targeted to the different stakeholder groups.

### Supportive and networking activities

Training events were held on management and financial administration, the acquisition of equipment, the organisation of a kick-off, mid-term and synthesis meeting, as well as the translation of course and outreach materials.

## RESULTS

### → Outputs

#### Capacity building

- Course support material for 6 interrelated Master's level courses of 20 hours each, in the field of agricultural biotechnology in Africa, in English and in French, in c. 90 files:
  - Food security, agricultural systems and biotechnology.
  - Biotechnology: history, state of the art, future.
  - Public response to the rise of biotechnology.
- Regulation and policy approaches to biotechnology.
- Ethics and world views in relation to biotechnology.
- Tailoring biotechnology: towards societal responsibility and country-specific approaches.
- 10 academic staff trained in agricultural biotechnology in Africa.
- 14 administrative and technical staff trained in financial project management.

#### Visibility

- Outreach materials (flyers, brochures, etc.) developed and distributed to stakeholders.
- 3 outreach workshop programmes developed for 3 different stakeholder groups.
- 3 target-country-specific policy briefs produced and widely published in newspapers and on the web.
- 3 stakeholder meetings and 2 roundtables with media coverage held in each target country.

### ↑ Outcomes

- Strengthened interlinkages and synergy among African partners and stakeholders.
- Improved management / administration capacity of the partner HEIs.
- Upgraded teaching capacity of the academic staff with new course materials.
- Increased knowledge and skills of lecturers, students and researchers in the field of agricultural biotechnology.

### 🎯 Impacts

#### Usage

- Improving food security through the application of biotechnology is a long-term process that requires many political and technological changes which can only take place if there is broad acceptance by consumers and producers. The project has laid a foundation for this by developing teaching materials designed to instruct future policy makers, and by informing future stakeholders. The conditions have been facilitated to initiate societal acceptance, whereby the evolution of scientific, technological and institutional developments may flourish.

#### Policy Implications

- The country-specific policy briefs and the outreach workshops directly address the target countries' policy makers and broader populations with regard to the potential of biotechnological crops in improving food security. The three policy briefs have been widely communicated through news media and the internet and are expected to reach a wide readership. The three outreach workshops' programmes were designed for different target audiences and thus help to reach the final beneficiaries in an efficient way. Finally, the Master's level materials developed by the project are expected to have a direct impact on thousands of students in the final stage of their studies, many of whom are likely to enter careers in government or in the food industry.

#### Sustainability

- Sustainability is ensured by the incorporation of the Master's level courses within the broader curricula of the three partner universities. The University of Ouagadougou has planned to introduce the whole set of 120 hours of course modules as a curriculum on its own. The universities of Eldoret and Nigeria will introduce the six 20-hour modules into existing curricula.
- ABNE may boost sustainability by effectively endorsing the course by either incorporating the course materials on their website or advertising them and providing a link to the University of Groningen's website where the course is available.

## TESTIMONIAL



**Prof. Jerry Ugwuanyi,**  
University of Nigeria,  
Nigeria

“The team has built strong links in Africa. This is noteworthy since the quality and quantity of such collaboration between African HEIs is low. The project, however, has provided excellent experience in the development of higher degree curriculum across international borders that will become very useful in biotechnology education. There are now more opportunities for collaboration and I look forward to the growth of this exciting collaboration in research, training and curriculum development.”



*Discussing the pros and cons of biotech cotton with local farmers in Burkina Faso, 2015.*

ACP-EU Co-Operation Programmes in the fields of Higher Education and Science, Technology and Research

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