



Funded by the Intra-Africa Academic Mobility Scheme of the European Union

## Mobility for Plant Genomics Scholars to Accelerate Climate-Smart Adaptation Options and Food Security in Africa (GENES)

### **TECHNICAL MEETING**

(Selection of second cohort, Annual report revision and PhD projects review)

## IN UNIVERSITY OF YAOUNDE I, CAMEROON

Date:  $02^{nd} - 06^{th}$  September 2019

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# Mobility for plant genomics scholars to accelerate climate-smart adaptation options and food security in Africa (GENES)

#### **GENES Project**

Genomics is a sharp and fairly recent scientific area that provides more precise, quick, non-expensive tools to complement classic breeding approaches. African universities are missing in action in the progress observed in genetics and molecular breeding worldwide due to low capacity and facility in utilizing genomic tools. The need to increase the number of plant genome experts by increasing the number of trained and qualified molecular plant breeders cannot be over-emphasized.

GENES offers opportunity for training young scholars to equip them in designing and developing molecular approaches to breeding in the face of climate change. The GENES consortium links with pivotal Anglophone and Francophone universities and research institutions with adequate expertise/potential in the areas of genomics to achieve the objectives of the project.

Consortium Partners include Ebonyi State University in Nigeria (the Coordinating institution), University of Abomey-Calavi in Benin, Jimma University in Ethiopia, University of Yaunde 1 in Cameroon and Wageningen University in the Netherlands that doubles as the Technical Partner to the Consortium.

Scientific Collaborators include University of KwaZulu Natal (South Africa), Centre for International Cooperation in Agricultural Research for Development (CIRAD), International Institute of Tropical Agriculture (IITA, Ibadan), BecA-ILRI (Kenya), African Plant Breeding Academy (AfPBA), UC Davis, MontpelliarSupAgro and Plant Breeding E-learning Africa (Iowa State University).

GENES is funded by the Intra-Africa Academic Mobility Program of the Education, Audiovisual and Culture Executive Agency (EACEA) of the European Commission.

#### **Objectives of GENES Program**

- Produce 10 world-class molecular plant breeders that will accelerate cultivar development to adapt to current and future challenges related to climate change and food and nutrition insecurity in Africa,
- 2) Train next generation of 36 high skill genomics scientists with strong capacity in cultivar development and new molecular breeding approaches,
- 3) Harmonize training programs and research agenda on the use of genomic breeding to accelerate cultivar development and increase the resilience of crop production systems,
- 4) Foster national regional global collaboration and programmatic agenda that promote genomic breeding research and training for agricultural innovations within Africa.

"We train the nextgeneration of genomics scholars to accelerate climate-smart agriculture for food security in Africa"

Target is gender balance in recruitment of scholars: 50 % Male and 50% Female Candidates:

- 5 female PhD students
- 5 male PhD students
- 18 female MSc students
- 18 male MSc students
- 8 academic technicians







#### Graduate Degree options offered

MSc in Plant Breeding& Genetics

MSc in Plant Biotechnology

MSc in Biotechnology and Plant Breeding

MSc in Seed Technology

PhD in Plant Breeding & Genetics

PhD in Plant Genetic Resources and Crop Protection

PhD in Plant Biotechnology

MSc in Horticulture

#### **Scholarship Offers**

• Monthly stipend: Euro 600 for Masters, Euro 900 for PhD students and Euro 1200 for staff.

• Research fund: Euro 600 for Masters and Euro 2000 for PhD students

• Participation cost: Euro 3500 for MSc and Euro 4000 for PhD students

Monthly Insurance

#### **ExpectedOutcome**

• At individual level, scholarship holders will develop or increase their knowledge in novel plant breeding and genetics for the benefit of the agricultural sector.

• Scholars will strengthen their competence and leadership to engage into new opportunities in the agribusiness sector.

• The project will promote bilingual aptitude in students throughout the implementation of the programme. Expansion of foreign language study will be reinforced.

• At institutional level, GENES offers opportunity to enlighten recognition of studies and enforce the application of academic credit transfers amongst African Institutions.

 A platform for curriculum improvement through cooperation among top universities in Sub-Saharan Africa is provided.

 New PhD holders become part of the academic staff of their Home institutions or contribute to research in CGIAR Centres, or seed companies.

At the national/regional level, we promote (or continuously advocate for) breeding neglected
and underutilized crops for food and nutrition security. Tackling local needs with local
resources using genomics is central to the program.

 Gender diversity will be addressed when member institutions become committed to promoting gender equity and thus give priority to female students and economically disadvantaged ones.

 Success stories from GENES scholars will be largely communicated to the public as a strategy to diseminate project ouptputs, transform agriculture and attract new donors.



GENES Partners and EU Project Rep















# GENES Intra-Africa Academic Mobility Project EACEA/2017/2552

# **GENES - Mobility for Plant Genomics Scholars to Accelerate Climate-Smart Adaptation Options and Food Security in Africa**

Technical meeting in University of Yaounde I, Cameroon (Selection of second cohort, Annual report revision and PhD projects review)

**Date:** 02 – 06 September 2019

#### **Participants**

Hermine NGALLE BILLE, University of Yaounde I, Cameroon

Wosene G. ABTEW, Jimma University, Ethiopia

Happiness OSELEBE, Ebonyi State University, Nigeria

Eric SHRANZ, Wageningen University, The Netherlands

Enoch ACHIGAN DAKO, University of Abomey-Calavi, Benin

Christel AZON, University of Abomey-Calavi, Benin

Celestine AFIUKWA, Ebonyi State University, Nigeria

Joseph Martin BELL, University of Yaounde I, Cameroon

### Advising scientific committee

Prof. Leonard AFOUDA (Parakou, Benin). He will be available through Skype.

Prof. Joseph Martin BELL (University of Yaounde I)

Dr. David CROS (CIRAD/CETIC)

Dr. BALOUA NÉBIE (ICRISAT)

Dr. Joël Romaric NGUEPJOP (University of Yaounde I)















# GENES Intra-Africa Academic Mobility Project EACEA/2017/2552



| Time                                  | Activity  | Speakers                            |
|---------------------------------------|---|-------------------------------------|
| Monday 2 <sup>nd</sup> September 2019 |   |                                     |
| 09:00 - 10:00                         | Welcoming Session   | r .                                 |
| 09:00 – 9:30                          | Official opening  | Dean of the<br>Faculty of Science   |
|                                       | Presentation of the participants  | Dr. Hermine                         |
|                                       | Objectives of the meeting   | NGALLE BILLE                        |
| 09:30 - 10:00                         | Family Picture and Coffee Break   |                                     |
|                                       | GENES Program Overview  |                                     |
| 10:00 - 10:45                         | Summary of GENES objectives, activities and main results. Output: thematic of research projects — Crops studied — Mobility and its relevance crops and tools — Challenges.  Assessing administrative and financial progress | Prof. Happiness<br>OSELEBE          |
| 10:45 – 12:30                         | Report on ongoing selection   |                                     |
|                                       | Output: Selection of cohort 2 MSc students  | Prof. Happiness<br>OSELEBE          |
| 12:30 - 14:00                         | Lunch Break   |                                     |
| 14:00 - 17:30                         | Selection Session   |                                     |
| 14:00 - 16:30                         | Selection of candidates(2 <sup>nd</sup> cohort)  Discussion on the launch of next call  | Chair: Prof. Enoch<br>ACHIGAN-DAKO  |
| 16:30 – 17:30                         | Writing the minutes of the selection and signature  | Christel AZON Dr. Celestine AFIUKWA |







