

# FAO/IAEA International Symposium on Plant Mutation Breeding and Biotechnology



Contribution ID: 272

Type: Poster

## INDUCED MUTATION AND BIOTECHNOLOGY IN CÔTE-D'IVOIRE: STATUS AND PROSPECT

The economy of Côte-d'Ivoire is based on Agriculture. Indeed, agriculture is the main activity in rural area and represent 30% of the GDP and 50 % of export earnings. Many crops ranging from cash crop to food crops are cultivated across the country. Due to the climate change and the increasing of effect of pest and diseases, many research programs have been focussing improving varieties and setting reliable screening tests for pathogens. Biotechnology appears as the template to move forward in breeding and pathogen detection. Besides, induced mutation is the tool to generate variation require for specific need. In Côte-d'Ivoire, the mutation breeding started in the 1960 on coffee using chemical mutation to create tetraploid and double haploid in order to make inter-species crosses between *Coffea Arabica* and *Coffea canephora*. This work led to the development of new species named *C. arabusta*. More recently the "Centre National de recherche Agronomique" (CNRA) in collaboration with IAEA has initiated a mutation breeding program on Yam, cassava and plantain using gamma ray. In order to carry out the downstream analysis in biotechnology, the CNRA Central Biotechnology Laboratory conducts research on molecular biology using various markers especially SSR and SNPs for diversity studies and QTLs analysis. The tissue culture facility is working on in vitro conservation of genetic resources as well as somatic embryogenesis. In the future, irradiated samples will be subject to TILLING analysis. In addition, functional genomic activities are ongoing for disease resistance on Cocoa tree.

### Country or International Organization

Centre National de recherche Agronomique, Côte d'Ivoire

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**Track Classification:** New challenges and technologies in plant genomics and breeding