TECHNOLOGY TRANSFER AND CAPACITY BUILDING IN BIOTECHNOLOGY AND



BIOSAFETY FOR A SUSTAINABLE AGRICULTURE IN AFRICA

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Marc Van Montagu, Founder of IPBO



In 2000, Prof. Marc Van Montagu founded the International Plant Biotechnology Outreach (IPBO) with the mission to assist developing countries in gaining access to the latest plant biotechnological developments. He received in 2013 the World Food Prize, together with Mary-Dell Chilton and Robert Fraley, for their achievements in founding, developing and applying modern

Communication

IPBO is engaged in advocacy to improve understanding and create awareness about the importance of green biotechnology applications for sustainable development. IPBO also strives to enhance awareness on the relevance of biotechnology to provide customized solutions for agricultural constraints in Africa.



Innovations in biotechnology hold massive opportunities for developing a more sustainable agriculture. However, converting these opportunities into practice in emerging economies requires a concerted effort in training in - and access to the latest technological developments and the design of effective biosafety and regulatory mechanisms. IPBO is an active cell within the VIB in Belgium (Flemish Institute for Biotechnology), which creates awareness about the potential of science and its uptake by downstream stakeholders for a sustainable development of agriculture in Africa.

The activities of IPBO are based on three pillars: (1) Creating awareness, (2) Building capacity and (3) Networking and project development

In 2016, IPBO has created the "Marc & Nora Van Montagu Fund" with the aid of the King Baudouin Foundation. This Fund supports: (1) Research projects which are valuable for Africa, (2) Communication initiatives in developing countries, and (3) Capacity building projects.



IPBO informs the public about the sustainability of biotechnology by giving presentations at conferences, in institutes and organizations and by publishing books, Fact series, statements, interviews, and articles in newspapers and journals.



In the book "Innovative farming and forestry across the emerging world: the role of genetically modified crops and trees" IPBO and its partners assessed the role of biotechnology innovation for sustainable development in emerging and developing economies.

Fact series

Since 2015, IPBO published four Fact series (Background information). They are comprehensive studies of challenges and potentials along the value chain of specific and relevant crops on the African continent.





Capacity building

IPBO builds capacity in Africa in the field of plant biotechnology and biosafety through workshops held in Africa and in Belgium. It uses capacity building as a main leverage to stimulate new interactions and develop new partnerships.

Awareness creation







IPBO organizes advanced 2-3 weeks trainings for scientists and regulators in Africa and in Belgium: regulatory and biosafety issues of agricultural biotechnology in the East-African region (2015); banana research in Africa modern breeding techniques, regulatory and biosafety issues (2016); and modern breeding techniques of maize (2017, 2018).















2017 - Biotechnology: from Innovation to Industrial Production



2018: Scientific innovation for a sustainable development of African agriculture

The aim of the conference is to unite several stakeholders (breeders, policymakers and researchers) from Ghent/Belgium/Europe with African partners to discuss about their research and outcomes and to encourage future collaborations.

Networking and project development



With the support of the Flanders Government, IPBO has joined forces with the UN Industrial Development Organization (UNIDO) to set up the International Industrial Biotechnology Network (IIBN).

IIBN fosters sustainable applications of biotechnology for innovative farming and inclusive industrial development with a focus on low and middle income countries. The IIBN website (www.iibn.eu) delivers information on the network and its activities and provides an automated registration form for IIBN membership.

CLISMABAN, the LEAP-Agri project 2019 - 2021, aims to phenotyping the already existing and available genetic resources of banana to identify climate smart varieties with optimal market potential in Africa and Europe. Research groups from Belgium, Spain, Kenya and Uganda will collaborate in this project.



For its capacity building activities, IPBO works hand in hand with African and International organizations such as the African Biosafety Network of Expertise (ABNE), the Michigan State University, the International Potato Center (CIP), the International Institute of Tropical Agriculture (IITA), the National Agricultural Research Organisation (NARO) and the International Service for the Acquisition of Agri-biotech Applications (ISAAA).

PAEPARD PLUS, a Horizon 2020 project proposal under evaluation, aims to create and sustain a dialogue between African and European stakeholders on research and innovation for Food and Nutrition Security and Sustainable Agriculture (FNSSA) development in sub-Saharan Africa. The creation of these interlinkages will improve uptake of research and innovation results by local stakeholders and rise an increased stakeholders' engagement from research and research-users in the FNSSA domain.









