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Evaluation of the agro- and socio-economic potential of Robusta genetic resources as a cash crop in the Congo Basin

Stoffelen Piet, Van der Schueren Nele, Verbist Bruno, Trefon Théodore, Stevigny Caroline, Delporte Cédric, Souard Florence, Merckx Roel, Segers Yves, Mavar Hélène, Dhed'a Benoit, Michel Baudouin, Tshimi David, Bollen Robrecht, Van den Bruel Raf, Janssens Steven, Vanbroeckhoven Ieben, Vandelook Filip

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Introduction

Coffee is an important cash crop in the Global South. Although Arabica coffee still counts for 60% of world production, the share of Robusta coffee (> 40%) is expected to increase. Research on the diversity of Robusta genetic resources, its management in agroforestry systems, its nutrient requirements etc. is lagging behind. The CoffeeBridge project intends to fill this gap by working with a multidisciplinary team on Robusta in the DR Congo, an important center of origin of diversity for Robusta.

Methods

The project focuses on the Yangambi area and has five objectives, each with their own methodology:

1. Evaluate the local coffee chain, using socio-economic surveys;
2. Characterizing and evaluating Robusta genetic resources by genetic, phenotypic, chemical and organoleptic assessments;
3. Propose sustainable agroforestry systems with Robusta coffee by evaluating experimental trials and doing field surveys;
4. Recuperate historic knowledge on Robusta kept in archives and grey literature, esp. on the origin of the Robusta coffee and on past agronomic research in Yangambi;
5. Formulate recommendations and policy advice to improve agronomic practices and cropping systems in order to arrive at a sustainable and profitable coffee culture in Tshopo Province.

Results/ Discussion

Although the project only started in 2020 and was delayed because of COVID-19, we see some interesting developments:

- new interest by local and international stakeholders in the Congolese coffee genetic resources;
- scientists of different disciplines and institutes are involved in research;
- historians, economists, sociologists, biologists, agronomists, earth-scientists and quality-graders are collaborating in a project with one common objective.

Meise Botanic Garden
Coffee Bridge
Project with financial support from: belspo

Conclusion/ Perspectives

This project brings local scientists of different disciplines and institutes together and generates local and international awareness on local genetic resources, which were until recently deprived from research. Local involvement and awareness is essential in order to install an effective conservation of these genetic resources with huge international importance. The project contributes to the conservation and valorization of coffee genetic resources and strengthen local skills. The project focuses on Yangambi and the Tshopo Province, but will contribute to the global coffee challenge as Robusta coffee from the DR Congo is of global importance.

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References: Stoffelen et al., BGJournal 16(2), 2019, 5 pp.