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BOOK OF ABSTRACTS

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Patterns of Global Collaboration in Research and Innovation in Coffee Genetic Diversity and Breeding for Enhanced Sustainability

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RATIONALE

Research and innovation in coffee genetics plays a crucial role for the sustainability of the coffee global sector in a context of climate change. Effective management and improvement of coffee genetic resources (CGR) relies on the exchange of resources such as genetic material, data or knowledge between different countries and across continents. It often involves global collaboration among a range of diverse actors interested in CGR but with different capacities, aspirations and motivations. Considering that access and sharing of research inputs is central for well-functioning and sustained collaboration, this paper develops a framework that considers the interplay between regulations, organizations, collaborative relationships (projects) and resources as determinants of access and sharing of research inputs, which in turn affects the research processes, sustainability and science and innovation outcomes. Our expectation is that global collaborative networks actively address each of these characteristics in ways that help attain multiple goals.

METHODS

This paper draws from an empirical network analysis of an online survey conducted in December 2018 on a sample of 458 individuals involved worldwide in research activities related to coffee genetic resources and breeding as well as a case study analysis on how World Coffee Research sponsored projects govern the access, exchange and collaborative use of coffee genetic resources (CGR) for international coffee research in different research settings.

RESULTS

Social network analysis results are presented according the following three characteristics (Bodin & Crona, 2009): i) level of network cohesion; ii) groups connectedness; iii) network centralization. Findings reveal: i) a well-connected network around a giant component, which favors the pooling of resources and collective action strategies; ii) strong interdependences between producing and non-producing countries; iii) a limited number of organizations spread in the four continents have a central position in the network. A comparison of the profile of these various central organizations along with the WCR case study reveals different strategies undertaken to enhance global research collaborations.

CONCLUSIONS & PERSPECTIVES

Results from the survey and case study help characterizing collaboration patterns in coffee genetic diversity and breeding and identifying obstacles and opportunities for enhanced collaboration towards more global coffee sustainability.

References:

- Bodin, Ö., & Crona, B. I. Global environmental change, 2009, 19(3), 366-374.