



AGROSYM

BOOK OF ABSTRACTS



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GERMPLASM COLLECTIONS OF NEGLECTED AND UNDERUTILIZED SPECIES AS RESEARCH AND CONSERVATION PLATFORMS FOR THEIR VALORIZATION

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Abstract

Germplasm collections of major crops continue to grow worldwide, while, to date, there is almost no collection of neglected and underutilized species (NUS). Recently, renewed interest has been sparked in NUS because of their great potential to contribute to climate resilience, food and nutritional security and economic development. To support the current dynamic, setting up collections of NUS is the most important step for analysis, conservation and valorisation of their genetic resources. Therefore, this study aims at (i) setting up germplasm collections of some NUS previously identified as of interest in Burkina Faso and (ii) suggesting a set of research activities for their efficient management and promotion. In order to collect a wide diversity of samples, a bibliographic search was first carried out to inventory the potential collection sites. Then, the list was completed through interviews involving custodian farmers, key informants, agricultural extension services, etc. As results, more than 852 accessions of five NUS (viz. Bambara groundnut, roselle, amaranth, moringa and country potato), including rare landraces and their wild relatives, were collected in more than 100 villages from Burkina Faso and eight surrounding countries (viz. Benin, Ghana, Niger, Mali, Côte d'Ivoire, Congo Kinshasa and Chad). Bambara groundnut and roselle were the most represented, with 200 accessions each, followed by country potato (173), amaranth (144) and moringa (135). Agro-morphological characterizations and evaluations of the accessions could contribute to a better knowledge of their diversity and to the identification of some accessions for dissemination in production areas in Burkina Faso. Establishing *core* collections of NUS could contribute to solving the problems related to the conservation of large genetic material and facilitate their use for plant breeding. The collections do not necessarily include the entire diversity of the NUS in Burkina Faso and could be enriched by new collections.

Keywords: *Seed-bank, genetic resources conservation, agrobiodiversity, NUS, SUSTLIVES.*