**Abstract**

Mainstreaming biodiversity into the agricultural sector is grounded in a vision that firmly links research on the assessment, access, and value of crop genetic diversity in farmers’ fields, with the benefits obtained by the farmer or farming community from the use of this diversity. In a world of increasing environmental and social change, the conservation and use of crop genetic diversity on-farm plays a central role in the livelihood strategies of individual producers and rural communities. Evidence, integrated from several disciplines, is provided that traditional crop varieties continue to be important to the lives of millions of farmers around the world. Examples from the GEF Portfolio demonstrate how this diversity can be harnessed by government, civil societies and farmers to contribute to improving the productivity and sustainability of agricultural production systems for small holder farmers. The necessity of working together with farmers and rural communities in ways that ensure respect for all those involved is emphasized, with a view that any decision to implement a particular action, and therefore its success, depends on farmers and the farming community having the knowledge and leadership capacity to evaluate the benefits that this action will have for them. The current concerns to improve agricultural sustainability and to meet the challenges of change, especially climate change, suggest that the properties of traditional crop varieties, with associated local knowledge and empirical research, will be crucial for improving rural livelihoods and the wider development objectives of the SDGs.

**Key considerations**

- The role of crop genetic diversity in improving agricultural production in low chemical input environments, extreme temperatures, water scarcity, and degraded soils
- The use of diverse varieties of a single crop as an insurance to maintain productivity under unpredictable fluctuations in temperature, rainfall, frost, pests, diseases.
- The growing consumer demand for diverse intra-specific crop materials and products and for more natural food-based production systems,
- The concerns and interests of the farmers and communities themselves who wish to retain control over their production systems.

**Key discussion points and conclusions**

- The need to ensure the existence of and access to planting materials that will continue to evolve to (1) cope with change (environmental, economic, social), and (2) provide resilience over time under constantly changing conditions.
- Any description or analysis on the assessment, access, use and benefit of crop genetic diversity in production systems can, and most probably will, lead to a number of different actions. The need for a diverse portfolio to increase options farmers and rural communities.
Key question/s that you would pose at the roundtable discussions

- Over 100 different types of interventions are available and documented that support communities to benefit from access and use of local crop genetic resources. Yet, still the use of intra-specific diversity is neglected in mainstream agriculture development strategies. Intra-specific diversity is often forgotten in agro-ecological, IPM, NRM and marketing strategies for sustainable agriculture and or for reaching the SDGs. What kind of research investments, institutional and policy support (both local and national), and changes in consumer and producer norms are needed to mainstream the use of crop genetic diversity as a tool for improving both agricultural production and resilience?

- What is needed to support the changing of agricultural practices that deliberately puts diversity as an alternative (to chemical inputs) to deal with particular agronomic problems.