Empowering community and rural institutions for on-farm conservation and sustainable use of cultivated and wild tropical fruit diversity in Asia

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SUMMARY
On-farm (in situ) conservation of cultivated plants refers to management of landraces/local varieties and occasionally cultivated wild relatives in the same landscape as the main crop and the short-term development of present day characteristics. Fruit tree varieties and related good practices improved by farmers in their home gardens and semi-commercial orchards are an important source of genetic material that are still underutilised and neglected considering their potential lucrative market value. This poster describes a participatory and innovative methodology for pairing the fruit genetic diversity of farming communities in order to develop strategies for sustainable conservation. On-farm conservation has been an important component of the biodiversity conservation strategies that have been developed by local farmers. On-farm conservation is not only important for maintaining fruit genetic diversity, but also for local farmers to develop strategies for sustainable conservation. The methodology described here can be used for on-farm conservation and sustainable use of cultivated and wild tropical fruit biodiversity in Asia.

KEYWORDS: good practices, in situ conservation, tropical fruit species, sustainable livelihoods, agricultural biodiversity, participatory action research, community diversity management.

INTRODUCTION
India, Indonesia, Malaysia, and Thailand, the project partner countries, belong to a major region of origin, cultivation and diversity of fruit gene pools of tropical fruits. Climate change is leading to changes in water resources, agricultural production and fruit growth, which lead to changes in the seasonal availability of fruit, as well as changes in the diversity and quality of fruit. These changes can have an impact on the livelihoods of farmers, particularly on the availability of fruit for consumption and for sale, which in turn can affect the nutritional status of the population. The project aims to develop a methodology for on-farm conservation and sustainable use of cultivated and wild tropical fruit biodiversity in Asia. The methodology described here can be used for on-farm conservation and sustainable use of cultivated and wild tropical fruit biodiversity in Asia.

METHODOLOGY
Figure 1 shows the steps for community-based biodiversity management of tropical fruit tree diversity. A participatory process analysis was used to assess the fruit tree diversity in 26 communities from India, Indonesia, Malaysia, and Thailand. These communities were selected to be representative of diverse agro-ecosystems and richness of fruit trees. The project aims to strengthen the capacity of farmers and local institutions in implementing community-based biodiversity management, as well as to promote and scale up best practices that can be transferred to other communities. Many communities also represent home gardens and semi-commercial orchards as well.

CONCLUSION
This poster illustrates how on-farm conservation and sustainable use of cultivated and wild tropical fruit biodiversity in Asia can be achieved through the following steps: 1) Identification of fruit trees 2) Genetic conservation 3) Community participation 4) Sustainable management. The project aims to develop a methodology for on-farm conservation and sustainable use of cultivated and wild tropical fruit biodiversity in Asia. The methodology described here can be used for on-farm conservation and sustainable use of cultivated and wild tropical fruit biodiversity in Asia. The project aims to develop a methodology for on-farm conservation and sustainable use of cultivated and wild tropical fruit biodiversity in Asia.