

COMMUNITY SEED BANKS AS A WAY OF MANAGING ON FARM AGRICULTURAL BIODIVERSITY

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Diversity is the hall mark of the dry land ecosystems in southern India largely supported by small and marginal farmers who eke out a living by subsistence farming. The underlying concept of the multicropping system in the dry land regions was based on two important factors that touched the farming systems in these regions.

Multicropping provided the balanced nutrition with a combination of pulses, oilseeds, and vegetables. Together with this diversity in the cropping system ensured insurance against failure of any one variety. The crop combination was purely a reflection of farmer's ability to manage the given resources. Examples of the different crop combinations are the navadanya or nine seeds and the baranaja or the twelve seeds, grown as a cropping system.

The multicropping system with finger millet (*Elusine corcana*) practised in the dry land regions has undergone some changes in the recent years, with the introduction of the high yielding varieties. The fall out of this change has been loss of diversity both in terms of inter and intra species diversity that is so specific to the multicropping system.

The programme of "on farm" conservation has been initiated in this region basically to strengthen the existing diversity at the farm level and to retrieve the diversity that is at the threat of extinction. The major objectives have been

- To strengthen the community seed supply with a wider gene pool via the community managed seed banks
- To manage the germplasm of the diverse allied crops via the field gene bank and enhance the quality of seeds to enable growing them under variable conditions.

Research

Farmer led PPB
for seed purification
and enhancement
for variable environment

Onfarm insitu conservation

Community seed bank
Training in seed management

Field gene bank

Maintenance of germplasm
at the field level

Central to the work of conservation and allied activities is farmers participation . From a mere ten farmers who participated in the conservation now more than 1000 farmers participate . Farmers evaluate the varieties for preferred criteria on an yearly basis which facilitates the ongoing conservation from time to time.

Seed fairs are held in different villages which is the high point in the year round activity. Demonstration plots in the school premises provide an opportunity to make diversity in

the crops visible. Farmers participating in the Onfarm conservation have been organised into farmers sanghas (clubs). All programmes related to the onfarm conservation are implemented through the sanghas. Farmers sanghas in selected villages have maintained seed banks through which seeds are distributed.

Farmer led seed enhancement programme includes seed purification and treatment for better yields. Women farmers play a crucial role in seed treatment, seed selection and seed storage. The programme has been extensively documented to highlight the different dimensions of the programme and limitations of the approach.