

Tribal women attain food sovereignty through seed banks

Tribal communities of Baran district have been able to regain their food sovereignty by preserving local seeds. The women groups have revived their traditional seed storage techniques to preserve seeds in the seed banks. Seed banks have provided assured access to seeds even during the times of drought.

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Photo: Cecoedecon



Seed banks managed by women

Shabhad block of the Baran District is one of the most underdeveloped regions of Rajasthan. It is a tribal block with entire population living in rural areas. The most prominent communities among the Scheduled Tribes are *Saharia* and *Bheels*. Their staple food is wheat, corn and pearl millet. The Sahariyas primarily depend upon forest for their livelihood; agriculture is of secondary importance. In Kharif maize, pearl millet, sesame, urad, soybean, arhar and ground nut are cultivated. Chick pea, mustard and wheat are the major crops grown during winter. Owing to disguised unemployment and lack of livelihood opportunities, large scale migration takes place in this region.

Low purchasing power accompanied by low productivity of livestock and land, lack of access to natural and economic resources, the rising cost of agricultural inputs, low price of farm output and vulnerability to erratic climate conditions have greatly increased the level of food insecurity in the region. The situation worsened at times of drought when people were forced to eat grains of *Sawan (Echinochloa frumentacea)*.

Since agriculture is of secondary concern, people of *Sahariya* community have not been in the habit of saving seeds for future use. Some villagers stored their seeds at individual level and others purchased from shop keepers or other villagers at the time of sowing at a higher price. Often the 'seed' saved for future use would be used as 'grain' at times of famine and they may not have seed to sow. Lack of good quality seed was another problem that resulted in low productivity. Moreover, the advent of genetically modified crops have brought the seed market in the clutches of multinational companies. In this context, preservation of indigenous seeds and varieties seems to be a promising approach to conserve the biodiversity as well as to retain the access to productive inputs like seeds.

To help the tribal communities to tide over the problem of seed and enable them to regain their seed as well as food security, CECOEDECON, an NGO started promoting the concept of seed banks with the communities. CECOEDECON (Centre for Community Economics Development Consultants Society) supported the communities under the project "*Peoples Initiatives for Food Sovereignty in Rajasthan*" supported by OCAA for the period from January to June 2006.

Setting the seed banks

Since women are associated with the selection of seeds, storage and management, they were organised into SHGs to manage the seed banks. The organization also equipped and motivated the people to handle the responsibilities to run the seed bank in an efficient manner. A few selected members were trained in storing and managing the seed banks and were taken on an exposure visit to the seed banks in Banswara.

Seed bank committees are formed. All the decisions and actions are noted in the SHG records and maintained by them in their Dhani/ village. Terms and conditions are decided by SHGs for sustainable development of the community-based organization.

The committee is authorized to take decisions regarding seed storage- whether to store more seeds or to distribute the seed to the needy people of the village. The collected seeds are distributed to the SHG members based on their requirements. Surplus seeds, if any, would be distributed to the other needy farmers with the permission of SHG members. In this whole process, SHG members are responsible to collect the seed again and sustain their seed banks properly. A system of documentation of seed transactions has been developed and the groups have been trained on recording the transactions.

Table 1: Traditional practices

Crop	Indigenous methods
Maize Pearl millet Sorghum Sesame <i>Koda</i> , Mustard, <i>Tara Mira</i>	<ul style="list-style-type: none"> ➤ Selection of good quality of cobs. ➤ Keep the cobs in sunlight to 8- 10 per cent moisture. ➤ Mix the dried cobs with leaves of <i>Neem</i> and Ash.
Gram Soybean Paddy Rali (type of paddy)	<ul style="list-style-type: none"> ➤ Selection of big/good quality of grain and dried. ➤ Mix the dried grain with leaves of <i>Neem</i> and Ash. ➤ Store in locally prepared storage bins (<i>Pohari</i>).
Black gram Green gram Pigeon pea	<ul style="list-style-type: none"> ➤ Selection of big/good quality of grain and dried. ➤ Mixed the dried grain with paste of red soil. ➤ Store in locally prepared storage bins (<i>Pohari</i>).

The income from sale of seeds is added to the SHG's account. The committees follow the system of 'dada' in which 1 kg of seed is replaced by 1.5 kg. Seeds of pearl millet and maize are stored mostly; the committees also plan to keep seeds of other crops like pulses.

Seed storage techniques

Women are been reviving their traditional ways of storage. For example, in Amkho, SHG members decided the best way to preserve white maize seed was to save the entire cob.

Villagers used *Siyari* wood and make a pot. This is coated with a paste of clay, soil, cow dung and straw, both inside and outside. Some villagers mix goat urine to the paste, as it acts as a pest repellent. Within 15-20 days, storage bin is ready for use. The storage capacity of the bins varied according to the seed availability as well as requirement. Seed storage bins are fumigated with neem leaves.

The materials used for seed treatment included locally available resources like neem leaves, wood of Bamboo, ash etc. (Some of the traditional practices being followed are presented in the Table 1.

A total of 49 seed banks were established in the targeted 50 villages up to June 2006. These were established at individual level in the house of selected members who had the facility of seed storage. About 750 women from 63 SHGs benefited through this intervention and 10,223 kg of seeds of different crops were collected. In these banks, seeds of different crops such as maize, pearl millet, black gram, pigeon pea, coriander, groundnut, sesame, and rice were collected, in order to meet the demand of SHG members in the existing cropping patterns.

Impacts

Control over the time of sowing and dramatic increase in crop area owing to availability of good quality seeds has been one of the major impacts of seedbanks. Before the establishment of the seed bank, only 15 out of 20 farmers could sow in the command area. Presently, all the farmers are able to because farmers are now assured they would get seed. Timely availability of seeds has increased the area under cropping and thereby the production and income.

The banks also serve as an insurance against drought. Even during times of drought, the farmers are assured of seeds to sow, which was not the case earlier.

Before the establishment of the seed bank, Shahpur farmers were buying black rice from market or borrowing from others, which was not as nutritious or productive as the white rice they store now in the bank. The white rice variety is also less water intensive.

Currently all farmers in the village use the seeds from the bank. Individual farmers created their own wheat seed banks after seeing the community rice bank leading to even greater seed security

for the village. Seeing the success of the SHG seed bank in Shahpur, four seed banks were started by groups of two to three farmers in the village. There is also a significant increase in animal fodder.

With increased confidence of seed selection and storage; the Nihal Devi SHG for instance, is planning to grow soybean next year-new to the area.

SHGs are also aware of the challenges in managing these seed banks. Frequent droughts leading to crop failure and poor recovery of seeds and maintaining genetic purity of seeds are the important ones among them.

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