

## SEED AND PLANTING MATERIAL FLOW SYSTEMS FOR BARLEY, FINGER MILLET, RICE, AND TARO IN THE TERAJ, KASKI AND JUMLA DISTRICTS OF NEPAL

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Formal and informal seed and planting materials supply systems of self-pollinated rice, finger millet, and clonal crop taro were studied in three ecosites of Nepal during 1999-2001 to understand the processes of seed flow, seed production, selection and storage system. A household survey (48-96) was conducted to document the indigenous knowledge about seed supply systems at each site for all crops. Informal seed supply was the only system in Jumla while in Kaski and Bara formal system also existed. Irrespective of crops, the main sources of seed included farmers' own saved seed (89-91%), seed from neighbours, and relatives. Exchange of germplasm was the main basis of fulfillment from other sources. All farmers obtained seed from their own village, while farmers do introduce materials occasionally from outside sources. Most of the farmers followed seed selection before or after crop harvest. Rice field selection and plant selection based on a fixed set of criteria was the common practice. Non lodging plants with more grain per panicle, bold grains, well-matured and uniform plants, long panicle, true to type, good looking grains, free from diseases and insects were the main seed selection criteria. All farmers from both sites stored rice seeds by local methods in the locally available containers. *Mor* is a special straw container to store rice seed freshly in Bara and *Mudkothi* also is a very common container there. *Dhara* is a special mud structure used to store rice seeds (any grain) in Jumla. Finger millet seed supply system was found mostly similar to that of rice seed system. Farmers used about double amount of seed than the needed. Ninety one percent farmers saved seed for their own use, however, many of them changed finger millet seeds lots or varieties regularly for their particular plot. Ears selection during harvest by set criteria for seed purpose was the common practice. Farmers stored finger millet seed carefully in small locally available containers and safe place and they tried their best to maintain the quality of seed during different steps of seed production. In contrast, diverse ways taro can be planted: cormels, corms with eyes, suckers and corm with small cormels. Taro planting materials management is totally informal and almost 89 percent farmers saved these materials for their use, replacing them mostly after 3 years. Farmers had fixed criteria of corms and cormels selection for planting purpose and focus more on disease free storage of planting materials done locally by using local materials methods. Taro is used for many purposes. It is a reliable commodity for regular income of local farmers and its importance will increase provided value is added. Understanding of seed system in various crops helps to develop conservation strategy.