

A Case Study :

Farm level storage systems of paddy in Chhattisgarh, India

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ABSTRACT

Paddy being the staple food and single largest crop of Chhattisgarh stored at farm level for seed, grain and buffer use. Efforts have been made to study the storage system of paddy in Chhattisgarh state of India. This study included the different types of storage structures traditionally being used by the farmers of different groups. Large variations in paddy storage system have been recorded in different parts/pockets of the area, availability of raw material and traditional/social acceptance. The capacity of these traditional storage systems varies from 1-15 in quintal in general depending on the land holding and storable produce of the farmer. In many cases the storage structures capacity have been found to be much more than 15 quintals, particularly structures owned by large and progressive farmers. In Chhattisgarh *kuchha kothi* has been found to be used widely by the all category of farmers including progressive farmers and the contribution of *kuchha kothi* for the storage of paddy is as high as 71.1%. The other types of storage structures are bamboo strips structures (8.8%), gunny bags (5.5%), paddy rope structures (4.1%), *pucca kothi* (3.6%), bamboo and wood structures (2.5%), wooden planks structures (1.9%), metal bins (0.8%). The tradition of storing paddy in the form of open heap has also been observed throughout the state contributing about 0.6% of the stored paddy. The percentage of contribution of these *kothies* differ widely from each other in the three agro-climatic zones of Chhattisgarh *i.e.*, Chhattisgarh-plains, Bastar-plateau and Northern-hills.

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India is an agricultural country with rice as the staple food. During the last 50 years while the rice area has increased only by one and half times from 30 million hectares to about 45 million hectares, the rice production has increased more than four times from 22 million tonnes to 90 million tonnes. The situation of grain demand supply has been serious, but grain loss reduction in grain post-production has been ignored. In fact, great losses in grain post-production system have been occurred in vast rural areas. People always pay great attention to pre-production and production system; otherwise, grain post-production system was neglected by farmers as well as by government officials (Birewar *et al.*, 1980).

Prevention of storage loss appears to be one of the major factors to be considered in attaining self-sufficiency in food production. Common sense dictates that with the present trend of population growth, demand for food grain will grow along with increased storage capacity, both in the private and public sectors (Maih and Mazed, 1994).

Paddy is major crop of Chhattisgarh state and occupies about 80% of the cropped area in *kharif* (*monsoon* crop). Storage of paddy is done at farmers level, traders level, mill sites and Government storage depots in the form of paddy (Ilyas *et al.*, 1993). Farmers

store the paddy for seed, food and buffer stock. The storage structures or storage facilities are locally known as *kothi*. Modern and most modern storage systems are being developed for large-scale storage of paddy by the Government/ public sector but the storage system at the farm level is still traditional and offer huge loss of quantity as well quality. Though various types of improved grains storage structures have been suggested by various research and development organizations but farmers still continue with their traditional structures because some of them offer special advantages like partial drying of high moisture grain in straw or bamboo storages and curing in under ground storages (Dash *et al.*, 1997).

In India, where 80% of her population lives in the villages and 70% of them depend upon agriculture for their livelihood, saving a part or full of grain losses occurring during storage will go a long way in making the food situation comfortable. It needs no emphasis that the grain produced must be saved from losses. Quite a substantial quantity of food grains produced is stored at farm level. The scientific methods of storage of food grains are the need of the day. Therefore, the present study was conducted to gather information on farm level traditional storage systems of paddy in Chhattisgarh state of India.