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Silo Storage: The Future of storage infrastructure in India

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UN projects India's population to reach 1.7 billion by 2050, for ensuring the food security India will require 333 million tonnes of food grains as against current 252 million tonnes. To reach this target India needs to maintain a steady production growth rate of 4.2 (cereals) %. While India envisage to tap its scientific knowledge to raise its gross output; she's still laden with her social constraints – small land holding, dependency on primary sector etc.

Post-harvest losses in India accounts for 15% which amounts Rs. 7000 cr. Grain losses accounts between 4.6 – 6%. Minimising these storage losses can not only ensure food security but also earn great sum of foreign exchange, stabilise the domestic food market and contribute towards controlling food inflation. Improved storage technology and minimising storage losses will make domestic markets less volatile; volatility directly affects the framer's income and his capital generation capacity

Traditional storage structure like warehouses, lack scientific methods of storage and constitute very less or no mechanisation. Stock remains prone to various post-harvest diseases, pests and rodents. Also being a horizontal structure, it requires large area and plain topography. This results in increased cost of setting in uneven terrain

A silo is a tall vertical structure (wooden or steal) for storing bulk material. Being a vertical structure it requires only 1/3 of land as against required for warehouse of same capacity. This vertical extension not only saves valuable land resources but also attributes to mechanisation, improved technology, scientific handling of grains and increased volume of storage.

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A silo will not only modernize the storage infrastructure but also earn good foreign exchange by boosting exports. FCI targets to increase silo storage capacity to 100 lakh metric tonnes with fostering PPP (public private partnership) model.

China successfully managed to bring its entire storage infrastructure under silo storage ambit in 1999.This has boosted country's export to large extent.

India's first silo structure was set up at Hapur, UP in 1959.However idea gained real popularity when FCI under its pilot project constructed silo model under PPP mode.

The stock above the buffer stock remains most prone to storage wastage, so boosting agricultural output and expanding storage infrastructure are two wheels of chariot which leads rural economy towards prosperity. Lack of storage facilities make market volatile-affecting farmer's income. Farmers in turn shift to commercial crops leading to low production of grains directly threatening the food security and economic stability.

Silo storage will definitely help control the food inflation, nutrition security, address malnutrition and lead one step ahead in doubling farmer's income.