

Improving Local Grain Storage

From Africa to Asia and Back Again



SPO
Strengthening
Participatory
Organization



Grain Storage

- “A rich person is the one that has stored enough grains to last the year round”
- Local farmers use different technique to store their harvested crops .



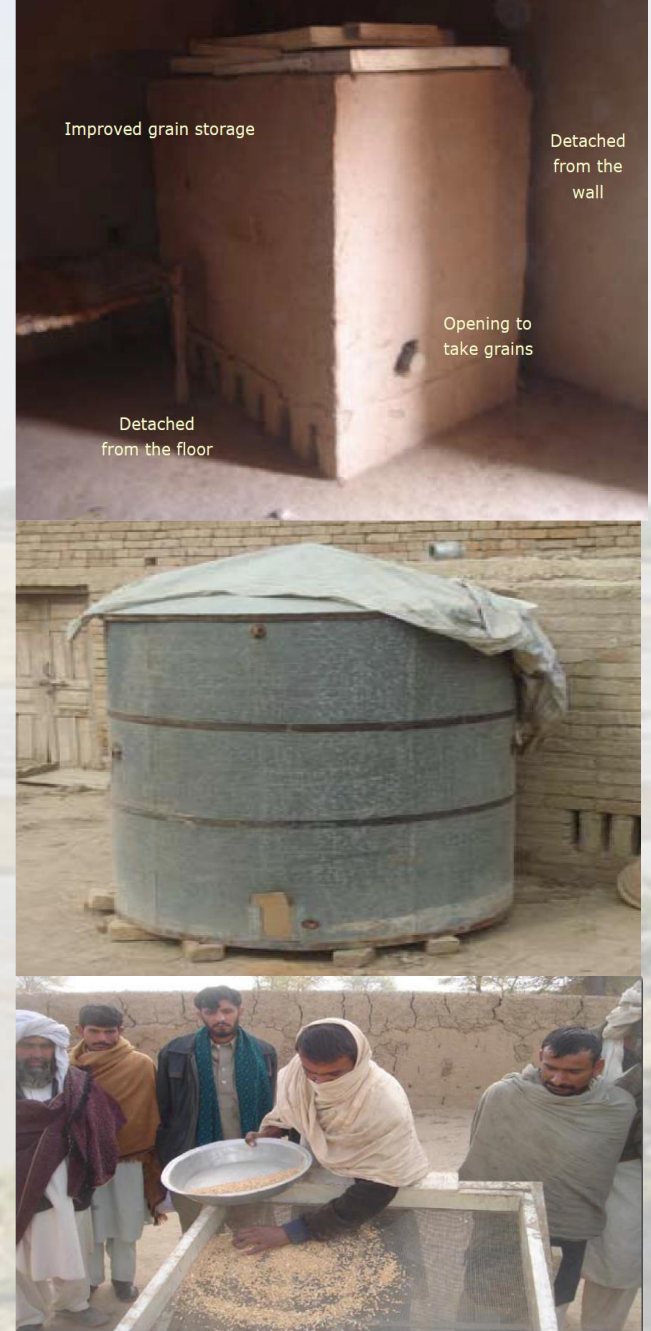
Need for Improvement

- losses in traditional crop storage are substantial and are estimated between 6-20%.
- Average 5 % (by weight) foreign materials in the grain stores, i.e. weed seeds, clods and straw.
- Grain is affected by moisture level, especially at early stage of harvest, aeration process, sunlight, temperature, microorganisms and various diseases and pest attacks.



Improved grain storages

- These earthen containers of 150 by 90 by 120 cm, containing 1200 kg of grain, are placed free from the walls and floors, containing an opening closed with a wooden plug to take out the grains.
- Similarly a closed metal container with an opening at the bottom to take out the grains
- Grain should be cleaned before storing



Other Storage techniques

Storage	Typical capacity	Improvements
Baskets	0.025 - 2.0 ton	Plastering with mud; lining with plastic bags; drying commodities; commodities before entering
Underground storage	0.5 - 0.7 ton	Roofing; pit lining (plastic, ferro-cement)
Polyethelene bags	0.3 - 2 ton	Commodities entered after drying; proper closing; care with rapturing or puncturing
Jute bags	0.1 ton	Careful stacking to allow ventilation; avoid contact with moisture (use pallet); cleaning of used bags
Mud storages		Waterproofing outerwalls with cement, mortar or painting/ coating
Brick and cement silo	2 - 6 ton	Multi-celled structures, use of ferrocement
Iron sillos/bin	0.5 - 3 ton	Plastic sheet insulation, rain and sun protection