

## PARC's Reaper-Windrower for Wheat Harvesting



Reaper-windrower in operation

### Contributors:

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### Challenges

- In late 1960s and 1970s, Green Revolution generated significant demand for agricultural labor and mechanization in the country.
- The challenge was to develop mechanized farming in order to cope with increased labor demand and save wheat losses during harvesting time.

### Interventions

- In 1980s, PARC started working on the development of reaper-windrower.
- In 1981, PARC engineers conceived and developed its design.
- In 1982, the engineers developed the prototype of machine.
- During 1982-85, PARC organized several country-wide demonstrations/ exhibitions resulting in refinement of its design which led to its industrial extension.
- The reaper-windrower;
  - is a tractor front mounted machine that **reaps** and makes windrows of harvested crop,
  - is an intermediate technology between manual and combine harvesting,
  - has a capacity of 1 acre/h for wheat harvesting.
  - saves time and labor,
  - has operating cost of Rs. 2400 per acre, and
  - also saves “*bhoosa*” contrary to combine harvesters.

### Outcomes

- Its commercialization started in mid 1980s through local manufacturers. Presently, around 40,000 units are in operation.
- The machine saves about Rs.1,600 per acre, resulting in accumulated benefit of about Rs.50 billion, since 1985.
- More than 35 manufacturers have created job opportunities for 400 skilled workers. In addition, a number of repair workshops are doing their business.

### Way Forward

- Further refinement and modification in the machine
- Up scaling manufacturing of reaper in other provinces
- Continuous institutionalized backstopping by PARC