



Database of Agricultural Mechanization in Sri Lanka

Eng M. H. M. A. Bandara
Chief Engineer
Department of Agriculture
Peradeniya
Sri Lanka

Overview of Statistics System for Agricultural Mechanization



- Responsible agencies

General statistics

- Department of Censes & Statistics

Agricultural Statistics

- Department of Agriculture (SEPC)

Mechanization statistics

- Farm Mech. Research Centre

Overview.....

- Channels, ways and frequency to collect, report and disseminate the agricultural mechanization statistics
 - Import data from the customs
(entry points- only import data)
 - Through grass root level extension officers
(Machinery being used in the field)
 - Island wide surveys





Overview.....

- Quantity and quality of agricultural mechanization statistics
 - Data provided by the field officers are of Dept of Census & Statistics are not reliable
 - Unacceptable deviations can be observed with the data from the Dept. of Censes & Statistics and Department of Agriculture (SEPC)
 - Import data does not show the actual number in operation
 - Least attention is given for mechanization data



Gaps and Needs

- Challenges and Constraints for the Statistics Collection and Management
 - Withdrawal of field level officers from DOA
 - New field level officers are not DOA officers
 - Lack of interest
 - Data collection is not a mandate of field officers
 - Dept. of Censes & Statistics not identified as a priority area.



Minimum Data and Statistics Requirements

- List of local manufacturers
- Type and scale of local production
- Number of imported machinery in each category
- Number of machinery in operation
- Contribution of machinery in crop production
- Comparison of mechanized cultivation and traditional cultivation.
- Distribution of farm machinery service providers in the region
- Cost of each farm operations
- Farm power availability in regional level
- Mode of Accessibility to the available machinery

Solutions and Suggestions

- Establish a reliable data collection mechanism operating under one umbrella
- Convince the policy makers the importance of collecting and analyzing of farm machinery data (**organize a workshop for Agri Ministers ??**).
- Draw a workable plan



Needs of Establishing a Regional Database

- Could be a reference material for all stakeholders
- It would help Farm Mechanization planning in respective countries
- It would help to exchange proven technology among member countries as well as beyond the borders



Feasibility of Establishing a Regional Database

- Collect and evaluate available compiled databases in some countries
- Review the available databases compiled by regional organizations (like SAARC)
- Use homogeneous simple template to collect data



Contribution to the Proposed Database

- Provide already compiled data for reference
- Convince policy makers the importance of compilation of data
- Collect and prepare country data and submit for the regional database
- Update the collected data as required



Available Resources

- “Facts & Figures of Farm Mechanization in Sri Lanka”

- Compiled by GTZ in 1985
- Updated in 1987
- Data collected conducting an island wide survey through field level extension officers
- Comprehensive publication including all relevant data on Mechanization in the country





Facts & Figures of Farm Mechanization in Sri Lanka

- Contents

- Distribution of Farm Machinery in districts
- Cost of production of major commodities
- Machinery population
- Percentage of mechanization of activities



SAARC Database



Directory of Successful Farm Machinery in SAARC Countries

Outline of SAARC Database

- Name of the Machine/ equipment
- Purpose / Use of the Machine
- Clear picture/assembly drawing of the Machine
- Mode of Operation
- Working Principle
- Working Capacity
- Cost of Operation



Outline of SAARC Database....

- Overall dimension
- Weight of the machine (Kg)
- Cost of Equipment (US \$)
- Address of the Manufacturers
- Information Source
- Other feature, if any



Example of SAARC Database

- **Drum type paddy seeder**



- Purpose / Use of the Machine: Row seeding of pre-germinated paddy
- Mode of Operation: Manually drawn
- Working Principle: One day soaked pre-germinated paddy metered and sown in pre set row and hill spacing
- Working Capacity: 3 – 4 acres per day
- Overall dimension
- Weight of the machine (Kg): 5
- Cost of Equipment (US \$): 200
- **Address of Manufacturers**
- Farm Mechanization Research Centre contract manufacturers
- Information Source; farm Mechanization Research Centre, Department of Agriculture, Maha Illuppallama, Sri Lanka,
- Tel: +94 25 2249222, +94
- E mail: fmrc@sltnet.lk Web: www.doa.lk
- **Other features:** Seed paddy requirement is 10 – 12 kg per ac



Thank You!