

Status of Testing & Evaluation of Farm Machinery in Sri Lanka

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Sri Lanka and her Agricultural Background

- Land area
 - 60,600 km²
- Population
 - 20.3 million
- Arable area
 - 30 % of the total land area
- Avg land holding size
 - 1.0 ha
- Main crops
 - Paddy, Maize, Vegetable, Fruits, Spices, Grain Legumes, oil crops and root crops
- Plantation crops
 - Tea, Coconut, Rubber, Sugarcane

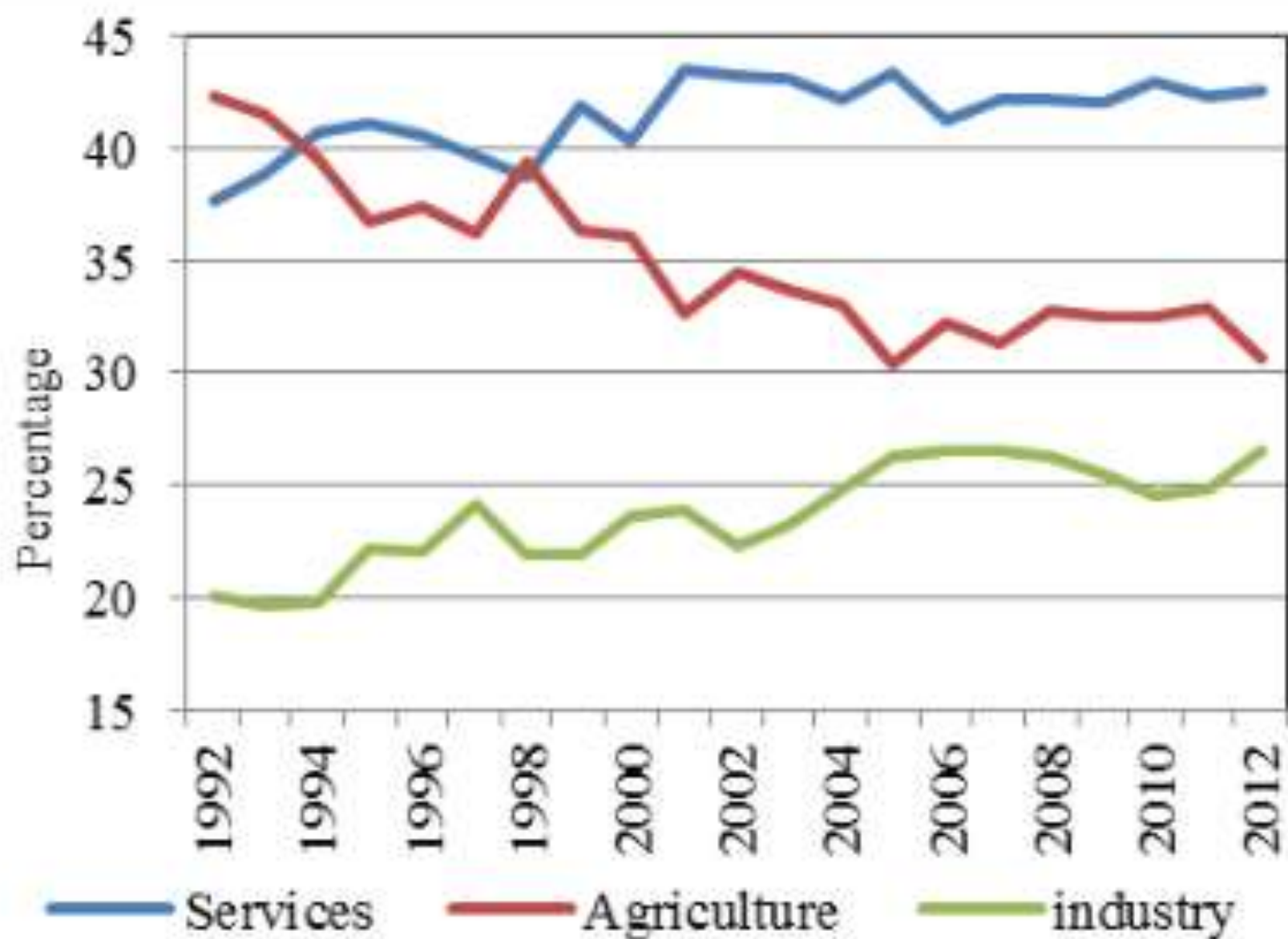


Sri Lanka and her Agricultural Background.....

- Temperature variation:
 - Low country : 24 C⁰ – 32 C⁰
 - Up country : 18 C⁰ – 27 C⁰
- Main Cultivation seasons:
 - Two seasons: *Yala* and *Maha*
- Annual rainfall: 1600 – 1700 mm



Employed population by major industry group - 1992 - 2012



Situation of Farm Mechanization

- Labour shortage in peak demanding period
- Cultivated area increased
- Bulk to handle is increased with increased yield
- Timely cultivation is encouraged
- Consumer is more quality concerned
- With the limited resources Productivity improvement is identified as a priority

Solution



Mechanization

Annual Sales of Major Farm Machinery in the Country

Year	2 wheel Tractors	4 Wheel Tractors	Combine Harvesters	Sprayers	Trans planters
2011/12	14445	7184	2160	26093	n/a
12/13	9664	5141	1099	6240	23
13/14 Aug	2783	1479	N/A	N/A	87

Status of Mechanization

- Paddy Cultivation - Highly mechanized
- Vegetable cultivation - Low level
- Other field crops - Moderate mechanized
- Fruit sector - Low level
- Plantation crops - Low level
- Spices - Very low

Status of Mechanization*

Operation	Paddy	OFC	Vegetable
Land Preparation	98 %	98 %	55 %
Irrigation	Irrigation canals	45 %	65 %
Weed control	Majority apply herbicides	20 %	20 %
Pest control	100 % Spraying	100 %	100 %
Harvesting	85 %	0 %	0 %
Processing	98 %	0 %	0 %

* Approximate figures

Paddy Cultivation

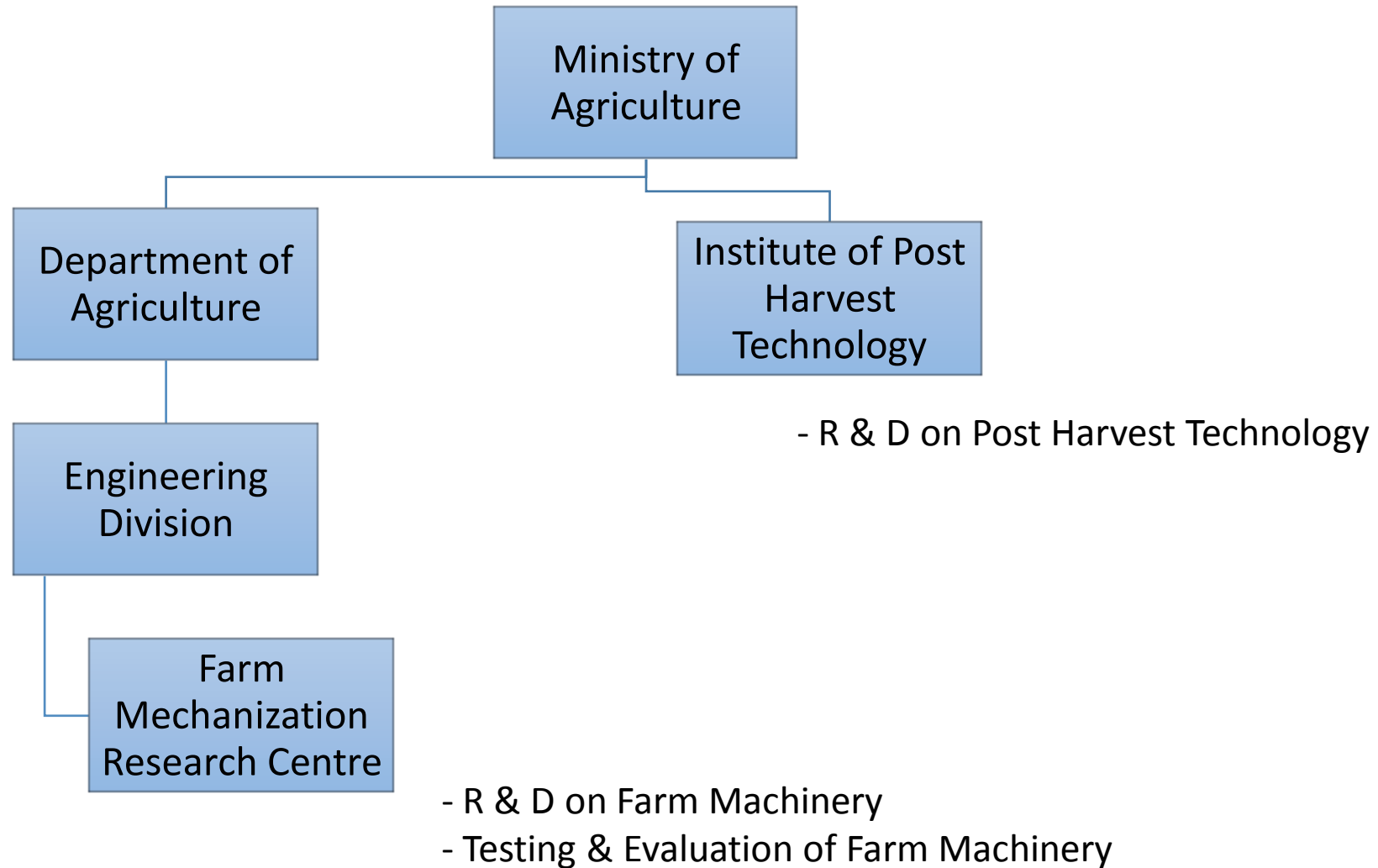
- Most of the operations are mechanized
- Least mechanized areas
 - Land leveling
 - Bund cleaning and plastering
 - Plant establishment and weed management
 - Small scale seed paddy processing
 - Drying & Storage



Status of Machinery Supply

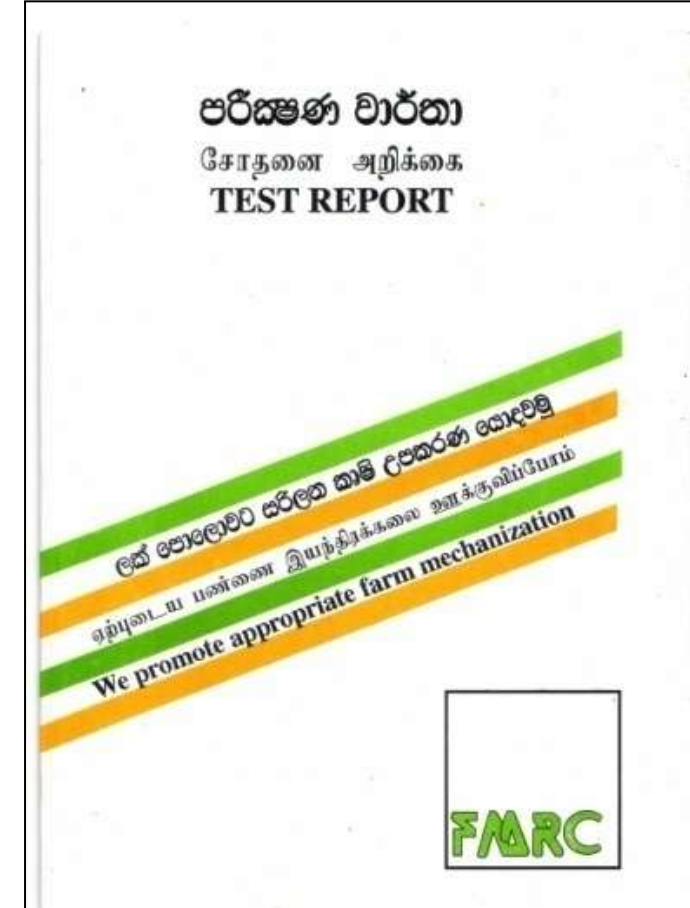
- Very few machinery are locally produced like water pumps, sprayers, seeders and hand tools
- Majority is imported
- However supply of machinery is not regulated
- Inferior quality machinery inflows to the country
- Local production also not supported by unfavorable trade policy and small local market

Status of Institutional Support



Farm Machinery Testing and Evaluation

- Types of testing at FMRC
 1. Verification of Specification
 2. Laboratory Testing
 3. Performance Testing
 4. Endurance Testing





Contents of FMRC Test Report

- MANUFACTURER'S DETAILS
- TEST METHOD AND PROCEDURE
- VERIFICATION OF SPECIFICATIONS
- RESULTS
 - PERFORMANCE TEST
 - ENDURANCE TEST
- CONCLUSION
- RECOMENDATIONS

Status of Institutional Support

- Only State Institutions engaged in R & D of farm Machinery
- Private sector only doing propaganda to promote their products
- Certification of farm machinery is done by Farm Mechanization Research Centre
- Banks and lending agencies consider the test report when providing credit facilities
- State institutions also consider test certificate in their bulk purchases

Infrastructure Facilities

- Regularizing of farm machinery supply is a priority of the Government policy.
- Many farmers complain about the inferior quality and uncertainty of some farm machinery.
- There is a already establish infrastructure faculty for testing & evaluation of farm machinery.
- Instrumentation facility is yet to be updated as same as with the capacity building of the staff.

Status of Machinery Testing Institute

- Only farm Mechanization Research Centre, Department of Agriculture is carrying out testing & evaluation of farm machinery activities in the country.
- It was established as Design and Testing Unit of farm machinery of the Department of Agriculture in 1969.
- Even before inception of RNAM this centre was engaged in testing activities and later adopted RNAM test codes and procedures.
- Certification is not mandatory requirement, most of the machinery suppliers get a certificate as a supportive document as a promotional tool.
- Specific machinery related to plantation sector are tested by the institutes responsible for research & development activities of the sector.

Policy Matters

- Need of a successful machinery regularization system is being discussed at the cabinet level for implementation.
- A proposal to Issue an import permit for certified machinery (by any recognized Institute) has been forwarded for discussion and it was rejected.
- A new proposal to provide duty free import facility only for certified machinery is being prepared and will be forwarded for cabinet approval.
- A Farm Machinery act is being prepared covering all the aspects in view to protect all stake holders

Suggestions

- Existence of harmonized test codes and procedures is very important
- Test certificate issued by National testing Institutes of other countries has to be recognized by each and every country keeping liberty to test the country specific parameters.
- CSAM should be able to convince the policy makers the role and responsibility of ANTAM



Thank You!