



CSAM



中国农业机械流通协会
China Agricultural Machinery Distribution Association



**Dr. Sarangu Hewage Sirimawan
Ajantha De Silva**

Director

**Natural Resources Management
Centre**

Department of Agriculture

Sri Lanka

*The 6th Regional Forum
for Sustainable Agricultural Mechanization in Asia and the Pacific
- Enabling Environment for the Private Sector
25 October 2018, Wuhan, China*

Role of Government sector in Sustainable Mechanization of Sri Lankan Agriculture

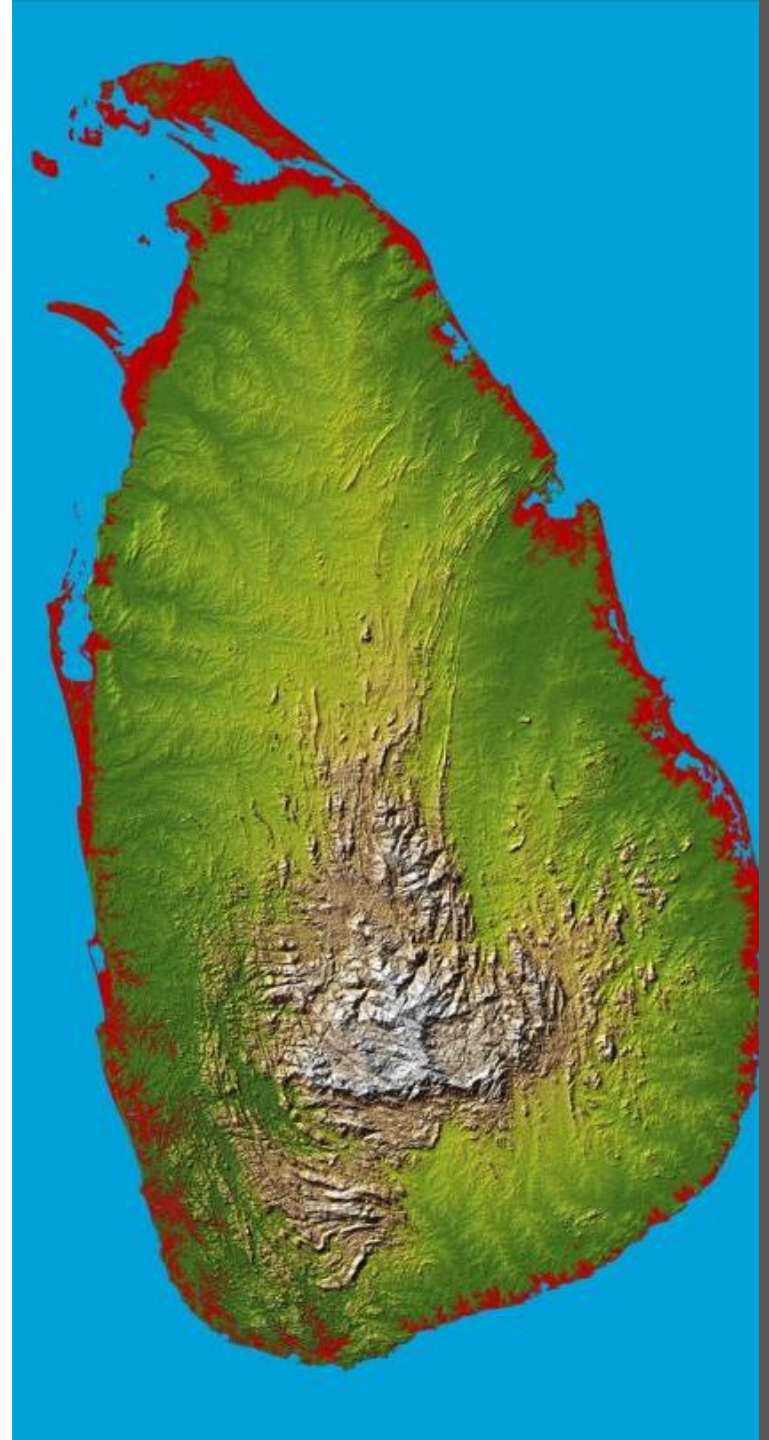
Presented by
Ajantha De Silva, PhD
Director
Natural Resources Management Center
Department of Agriculture

The 6th Regional Forum for Sustainable Agricultural Mechanization in Asia and the Pacific
- Enabling Environment for the Private Sector
25 October 2018, Wuhan, China

Background

The Democratic Socialist Republic of Sri Lanka

- Location - [7°N 81°E](#)
- Total land area : 65,610 Km²
- Population – 20.48 million (2013)
- GDP 4032 US \$ (2018)
- Monsoonal weather lead to high agro ecological diversity





Agriculture Sector of Sri Lanka

- Contribution to GDP is 7.9% (2017)
- 27 % directly involved in Agriculture
- Comprised with;
 - Rice
 - Other field crops
 - Fruits
 - Vegetables
 - Plantation crops
- Scale is either small or medium
 - Average land holding is 0.6 ha

Challenges for the Agricultural sector



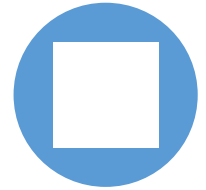
LOW LEVELS OF
PRODUCTIVITY



LACK OF LABOUR/HIGH
COST OF LABOUR



EFFECT OF CLIMATE
CHANGE



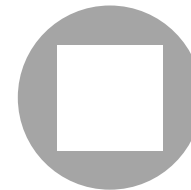
LACK OF
DIVERSIFICATION



LAND DEGRADATION
REDUCING
PRODUCTIVITY



LOSS OF COMPARATIVE
ADVANTAGE IN THE
REGION DU TO HIGH
COST OF PRODUCTION



POOR POST HARVEST
HANDLING



UNSTABLE MARKET
PRICE

Use of machinery in rice sector

Operation	% Mechanized	Constraints in mechanization
Land preparation	95%	Still expensive, Unaffordable to many farmers
Plant establishment	15%	Advantages unknown, unavailability of suitable machinery
Weeding	15%	Unavailability of suitable machinery, labour intensiveness of hand tools
Spraying	100%	Chemical weeding is comparatively easy and effective than mechanical weeding
Reaping	5%	Unavailability of suitable machinery, high cost of imported machinery
Threshing	10%	High cost of machinery to own by individuals
Cleaning/winnowing	10%	Accidents due to lack of awareness
Combine harvesting	90%	High cost and lack of machinery





Other crops

- Fruits, vegetables, Pulses, Condiments, Root and tuber crops
 - 90% small holders – not economical in investing on machinery
 - Large scale growers are willing to use medium scale machines.
 - Preference is for harvesting, processing

Plantation Crops

- Possible to introduce machines to reduce cost of production
- Labour shortage

The role of the public sector In terms of Agriculture mechanization



Introducing new technology



Popularizing new technology



Create Markets and Supply Chain



Regulating



Public Private Partnerships (PPP)



Establishing Policies



Quality Assurance



Providing Infrastructure





Dedicated center for Agricultural Mechanization research and development

- Under Department of Agriculture
- Farm Mechanization research Center, Mahailuppallama
 - Research on new technology
 - Introduction of new technology after field validation
 - Certification of products
 - Quality assurance

Finger Millet Thresher + De Husker



Ground Nut Decorticator



On Going Research Projects

Groundnut Pod Remover



Pulse Splitting Machine



Vacuum Metering Systems





Introducing New Technology





Popularizing New Technology

- Training Programs
- Field Demonstrations
- Exhibitions
- Media



Create Market and Supply Chain

- Awareness Programs
- Subsidy
- Manufacturer Training



Testing and certification procedures of Agricultural Machinery

- Providing of information to the farmer on performance, safety, economic benefits of agricultural machines.
- Reveal to the manufacturer, importer and exporter the positive and negative aspects on design, performance, quality, durability and comparability to its competitors on a national and international level.



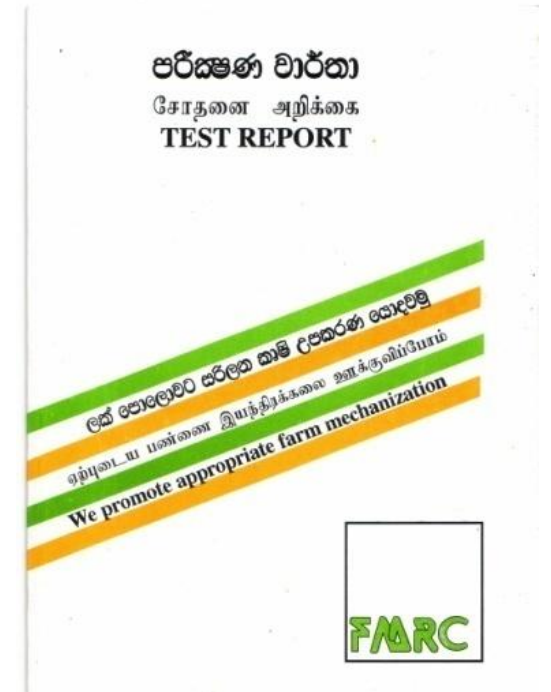
Testing and certification procedures of Agricultural Machinery..contd



- general criteria applicable to all types of machinery
- special criteria applicable to a range of a certain implement

Regulating

- No custom duties for imported agricultural machinery
- FMRC Test certificate for imported and locally fabricated agricultural machinery
- Participating developing regional test codes



Government support for farmers



provision of credit for producers

Three forms:

- short-term loans to farmers for the purchase of seeds and fertilizers
- medium-term loans, intended for the purchase of farm machinery;
- long-term loans for capital expenditure on storage, transport, and rice-milling apparatus.



the setting of minimum prices for agricultural produce



No Taxes for imported Agricultural Machinery



building of irrigation works.

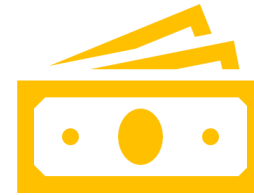
PPP



Collaborative
research



Custom hiring centers



Credit facilities



Role and the place of Mechanization when preparing agricultural policies



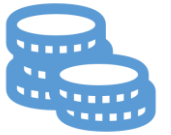
Introduction of mechanization technologies, which make optimum use of labour and or productivity rather than displacing labour.



Adopt low or no tax policy on useful imported machinery while controlling undesirable machinery flowing into the country.



Promote local manufacture of agricultural machinery and support agro-based industries entrepreneur development schemes.



Enhance the level of income of farmers facilitating for value adding techniques

Providing Infrastructure

- Farm Roads
- Irrigation systems
- Economic Sales Centers





Summary

- Sri Lanka has identified the need of sustainable mechanization of agriculture to increase the productivity of agricultural sector.
- Private sector involvement is vital in achieving this noble task is very well identified by policy makers and relevant authorities handling agriculture sector in Sri Lanka.



Thank You