

Country Report Sri Lanka



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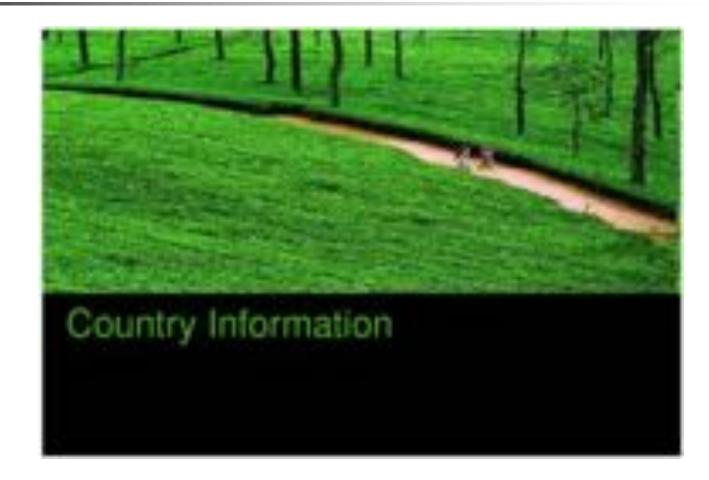


Workshop on Harvesting and Postharvest Mechanization to Support Food Security in Asia and Africa

Sri Lanka at a glance



An island in the Indian Ocean off the southeast tip of India is known as Democratic Socialist Republic of Sri Lanka. It has a population of 21 million, Sri Lanka is a multi-religious and multi-ethic nation which has 70% - Sinhalese, 15% - Tamils, 13% - Muslims and 2% - Others, Literacy rate at 91% is one of the highest in the region.



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Past and Present

- Indo-Aryan emigration from India in the 6th century B.C. came to form the largest ethnic group on Sri Lanka today, the Sinhalese
- Ceylon became independent from British rule in 1948 and name was changed to Sri Lanka in 1972 at the time the country became a Republic
- Mrs. Sirimavo Bandaranaike, became the world's first female Prime Minster in 1960
- Sri Lanka is a democratic republic with an executive presidency

Country Information

Extent	Approx. 65,600 Sq.km
Commercial Capital	Colombo
Population	Approx. 21 Million
Population Growth	1.1%
Unemployment	4.7%
Principal import sources	China 21.7%, India 19.7%, Singapore 6.1%
GDP	80.591 Billion USD
Real GDP Growth	4.4% YTY
GDP Per Capita	11,068.996 USD (Purchasing Power Parity-PPP)
Inflation	3.8% YTY
Electrification	95%
Electrical Power Generation	4017 MW (2,115 MW-Thermal, 1,726 MW-Hydro, 176 MW-Renewable sources
Total Power consumption	14,149 GWh

Scenic Beauty of Sri Lanka



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Economy



- Sri Lanka's most dynamic sectors are
 - + Textiles and Apparel
 - Food and Beverage
 - Port and Highway Constructions
 - Telecommunication
 - Infrastructure

Exports









Apart from traditional items like Tea & Rubber, other key exports include:

- Coconut & Coconut Products
- Aquarium Fish, Aqua Culture & Sea tood
- Light Engineering Products
- Handicrafts & handloom Textiles
- Apparel & Accessories
- Porcelain & Ceramic products
- Gem & Diamond Jewelry
- Granite & Mineral sands
- Fresh fruits & Cut Flowers
- Cinnamon & vialieity of spices.

Agricultural Background

- Agricultural based country
- 1.887 mill ha. of Arable land available
- 1.0 mill ha. Under permanent plantation crops (tea, Coconut, rubber and spices)
- Rice, Maize, Vegetable, pulses, oil crops and condiments are the main crops grown

Climatic Condition

Four main climatic regions

 Wet zone (Annual rainfall more than 2500 mm)

Dry zone

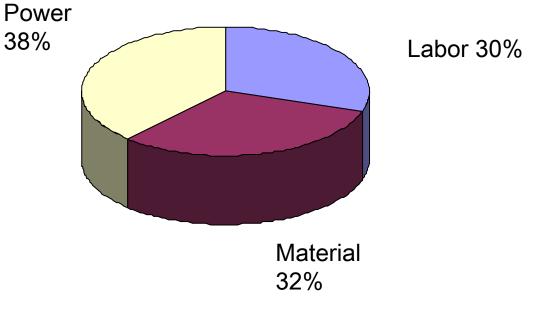
(Annual rainfall less than 1750 mm)

Intermediate zone (Annual rainfall less than 2500 mm and more than 1750 mm)

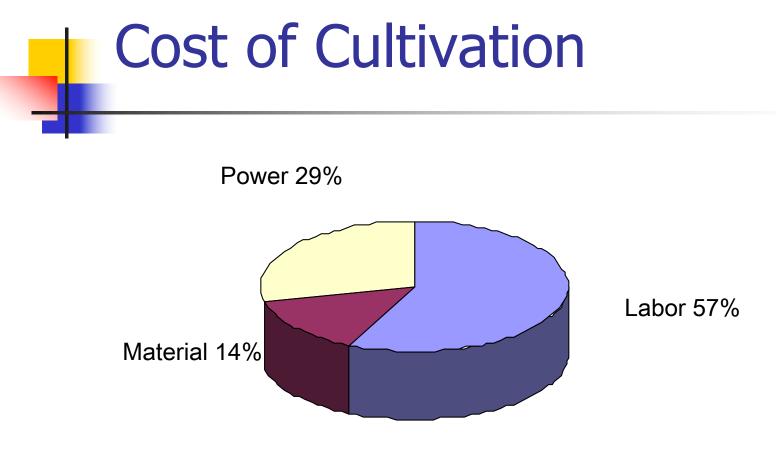
Economic Condition

- Economically active population is 38% of total population (about 8.2 million);
 - 27% engaged in agriculture
 - 28% industries sector
 - 45% service sector
- Contribution to GDP from agriculture is 7.5%
- Growth rate is 12% in agriculture



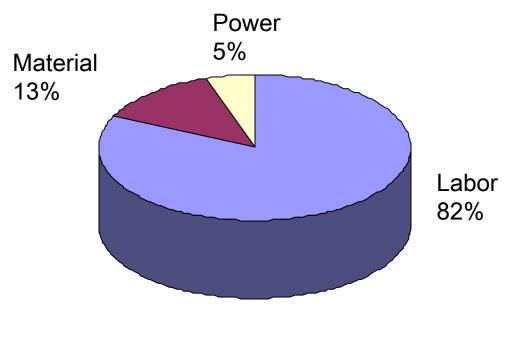


Cost of production for paddy in large scale cultivation



Cost of production for paddy in small scale cultivation

Cost of Cultivation



Cost of cultivation for Chilli

Major Problems in Cultivation

- Labour scarcity in peak demand
- Unpredictable Climate change
- Lack of organized Marketing mechanism
- Poor access to new technology

Mechanization Status

Land Preparation

Almost fully mechanized. However there is an urgent need for an appropriate implement for bund (levee) clearing and plastering.

Irrigation

Most areas are covered with well planned surface irrigation systems. Small scale irrigation pumps are used in some areas and micro irrigation systems are used in protected agriculture applications.

Plant Establishment

All crops, including Paddy, are established manually. However, a manually operated raw seeder was developed and introduced successfully during the past year.

Mechanization Status cont.

Harvesting

Almost 90% of the Paddy harvesting is mechanized and only the cultivation done in terraces and in boggy fields in the wet zone are manually harvested. This issue is being addressed at present

Processing

Whilst there is a lot of scope for mechanizing postharvest operations of all crops only the Paddy processing, for both seed and Rice production are mechanized at various levels

Storage

Though conditioned storage facilities are a current need, specially for all perishables, limited facilities are available only for some exotic products like cut flowers, fruits and vegetables for the export market



Harvesting & Threshing

- Locally manufactured Paddy reaper and High/Low capacity thresher combination is extensively used by small scale farmers in both Wet and Dry Zone
- Combined Harvesters, imported from India, China and Japan are predominantly used in the Dry Zone

Processing



Multi-crop thresher with cleaning device





Mechanized Harvesting





Threshing and Winnowing



Processing



Multi-crop thresher with cleaning device





Urgent needs

- Bund clearing and plastering implement
- Low cost motorized lowland weeder
- Paddy dryer
- Establishment of Regional Farm Machinery Testing Centre

POSTHARVEST OPERATIONS

Rice Processing

Village level paddy parboiling method



Paddy parboiling plant



Latest Machines Used for Rice processing







A Modern Rice Mill



Projects Implemented



Projects Implemented Cont...



Designed and introduced Dust Free /GMP certified Rice Processing Lines "Rayin Rice Mill-Kurunegala"



Weighing and Packing



Rice Flour Processing Machines





Pin Mill (Disk Mill)



Plate Mill (Abrasive Plate Mill)





Small Scale Machines



Tomato grader



Rice flaking machine



Pulse dehuller machine



Medium scale maize Sheller



Fruit pulping machine

Traditional method for Oil extraction





5/26/18 Official Seminar on Agricultural Mechanization for Developing Countries

Other Small Scale Machines for Oil Extraction



OIL EXPELLOR



VIRGIN COCONUT OIL EXPELLOR



DISK MILL MACHINE



Thank You!