

Cutting-edge technologies in agricultural mechanization in Sri Lanka

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INDUSTRY OVERVIEW

- ECONOMIC CONTRIBUTION

- 1.65 MN SMALLHOLDER FARMERS WITH LESS THAN 2 HA LANDS COVERS 80% OF TOTAL AGRICULTURE INDUSTRY.
- GDP CONTRIBUTION 8.2 % (2023)
- EMPLOYMENT – 25% OF TOTAL SL WORKFORCE.

- CURRENT STATUS OF AGRI MECHANIZATION

- PADDY CULTIVATION IS FULLY MECHANIZED
 - MORE THAN 97% OF PADDY HARVESTING IS DONE WITH COMBINE HARVESTERS
- OTHER CROPS CULTIVATION IS STILL LABOR INTENSIVE



INDUSTRY OVERVIEW

- CURRENT MECHANIZATION INITIATIVES
 - LOW INTEREST LOAN SCHEMES FOR STALLHOLDER FARMERS AND FARMER ORGANIZATIONS
 - 50% GOVERNMENT PRIVATE PARTNERSHIP PROJECTS
 - INTERNATIONALLY FUNDED PROJECTS UNDER MOA.
 - AGRICULTURE SECTOR MODERNIZATION PROJECT
 - CLIMATE SMART IRRIGATED AGRICULTURE PROJECT
 - SMALLHOLDER AGRIBUSINESS PARTNERSHIP PROJECT



INDUSTRY OVERVIEW

- KEY CHALLENGERS
 - SMALL AND FRAGMENTED LANDS
 - LIMITED ACCESS TO SUPPORT SERVICES SUCH AS, FINANCIAL SUPPORT, SPARE PARTS AND TECHNICAL SUPPORT..
 - LIMITED NUMBER OF SKILLED LABOR
 - RELUCTANCE OF TRADITIONAL FARMERS TO ADJUST INTO MODERN EQUIPMENT'S
- FUTURE OPPORTUNITIES AND POTENTIAL
 - INCREASING LABOR SHORTAGE
 - INCREASING DEMAND FOR AGRICULTURE PRODUCTS.
 - SMALL SCALE MACHINE SOLUTIONS (MINI TRACTORS, MODULAR IMPLEMENTS)
 - SOLAR POWERED IMPLEMENTS
 - HIGHLY EFFICIENT EQUIPMENT WITH LOW COST OF PRODUCTION.



GRAIN DRYING & PROCESSING



Grain Drying.

DIESEL / KEROSENE TYPE MODELS.

Item.	Specification
Suitable products	Paddy, maize, and other grains. Both consumption & seed purpose
Capacity	From 3.5 ton to 15 ton per batch
Operation	Fully automatic
Drying Rate	From 0.7% – 1.0% per hr



GRAIN DRYING

PADDY HUSK FURNACE TYPE.



Item.	Specification
Suitable products	Paddy, maize, wheat, Coffee. Both consumption and seed purpose
Capacity	From 10 ton to 30 ton per batch
Furnace	Husk, coconut chips, wood, corn cobs etc. Husk consumption – 30 -40 Kgs / hr
Operation	Fully automatic
Drying Rate	From 0.7% – 1.0% per hr



TRAY TYPE DRYERS

HEAT PUMP DRYERS (TRAY TYPE)

Item.	Specification
Suitable products	Fruits, Vegetables, Spices, Herbal products
Capacity	From 30 kg to 1000 kg per batch
Power	Electric. 4kw upward
Operation	Fully automatic
Trays / trolleys	SS / PP (food grade) Tray size – 600 mm x 800 mm



SEED CLEANING AND GRADING

SEED PADDY PROCESSING

TIGER
KAWASHIMA



Item.	Specification
Suitable products	Specially designed for seed paddy cleaning
Capacity	600 – 1000 kg per hr output
Operation	3 in 1 hybrid design
Power rating	750 w single phase.



SEED CLEANING AND GRADING

DECK CLEANING MACHINE

Item.	Specification
Suitable products	Paddy, Maize, and other field crops.
Capacity	1.5 ton per hr & upward
Operation	2 deck cleaning system with aspiration
Power rating	7 Kw , 3Phase



SMALL SCALE RICE PROCESSING

Mini Combine Rice Mill



Item.	Specification
Suitable products	Paddy
Capacity	800 – 1000 kg per hr output
Operation	Semi-automatic
Power rating	24 Kw Three phase



GRAIN HANDLING EQUIPMENT

Grain collector machine

Item.	Specification
Suitable products	Paddy, Maize, Peper
Capacity	4 – 6 ton/hr
Operation	Hand push type
Power rating	4.5 Kw gasoline / 4 stroke engine



GRAIN SORTING MACHINES

Color Sorter



Item.	Specification
Suitable products	Paddy
Capacity	500kg – 2000 kg/hr
Operation	Optical sorting, with or without automatic resorting option
Power rating	0.8 kw & upwards
Existing installations	NGS Seeds - Polonnaruwa



RICE MILLING MACHINERY



SCALE RICE MILL MACHINERY RANGE CONT.

❖ Capacity starting from 2.5 Tons per hr



Husk Separator



Rice Whitening
Machinery



MEDIUM TO LARGE SCALE RICE MILL MACHINERY RANGE

❖ Capacity starting from 2.5 Tons per hr and upward



Pre cleaning and
Separation



De-stoning
machines



SCALE RICE MILL MACHINERY RANGE CONT.

❖ Capacity starting from 2.5 Tons per hr and



Rice Polishing
Machinery



Grading machines



MEDIUM TO LARGE SCALE RICE MILL MACHINERY RANGE CONT.

❖ Capacity starting from 2 Tons per hr and upward



Color sorter



ANIMAL FEED PREPARATION MACHINERY



ANIMAL FEED PREPARATION

Silage Baling Machine

Item.	Specification
Suitable products	Fodder grass, maize, sorghum
Capacity	35 – 40 bales/ hr
Bale weight	40 -45 kg
Bale dimensions	500 – 500 mm
Operation	Semi automatic
Options	Bales wrapping unit, weighing unit.



ANIMAL FEED PREPARATION

Fodder Harvesting Machines



Item.	Specification
Suitable products	Fodder grass, maize, sorghum
Capacity	1000 – 10,000 sqm/hr
No of raw	1 -4 raw
Working width	70 -300 cm
Tractor	55 - 135 HP



LAND PREPARATION & SEEDING MACHINERY



LAND PREPARATION

DISC HARROWS

Description	Specifications
No of disc	18 – 36 discs
Disc distance	220 mm
Disc diameter	610 mm
Tractor power	55 – 160 HP
Existing installations	NLDB – Polonnaruwa farm



LAND PREPARATION

DISC PLOUGH



Description	Specifications
No of disc	2 – 5 discs
Working width	66 – 165 cm
Disc diameter	660 mm
Tractor power	45 – 90 HP
Existing installations	NLDB – Polonnaruwa farm



SEED ESTABLISHMENT

PNEUMATIC SEEDERS

Description	Specifications
No of Raws	4 -8
Raw distance	45-70-75 mm
Tractor power	65 – 95 HP
Existing installations	NLDB – Polonnaruwa farm



TEA PROCESSING MACHINERY



TEA FACTORY MACHINE RANGE.

BLACK TEA MANUFACTURING.



Tea withering
unit



Tea Dryers



Tea roller



TEA FACTORY MACHINE RANGE.

GREEN TEA MANUFACTURING.



Tea leaf
steamer



Cooling units



Tea Dryers



SOLAR ENERGY-BASED EQUIPMENT

- SOLAR PUMP FOR DOMESTIC & AGRICULTURAL PURPOSE
- SOLAR ENERGIZER FOR PEST & WILD ANIMAL CONTROL



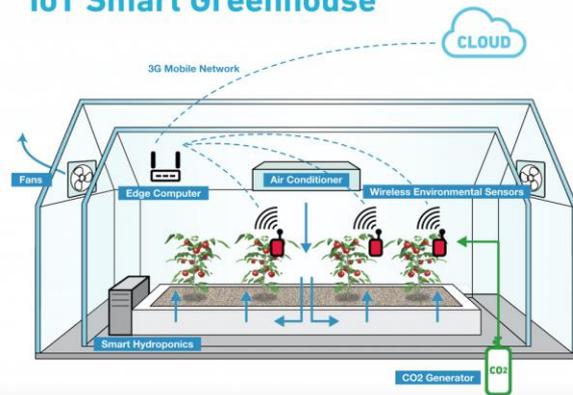
EMERGING AI BASED TECHNOLOGIES

AI MONITORING GREENHOUSE

AGRICULTURAL DRONES

CLOUD BASED SMART FARMING PLATFORMS

IoT Smart Greenhouse



THANK YOU

