# Agricultural Mechanization in Kenya



## Role of Agricultural Sector In the Economy

- Contributes 26% of country's GDP
- Contributes 65 % of total national exports
- Contributes 18% of formal and 70% informal employment.
- 70% of the rural population depend on the sector for their livelihoods
- Major source of raw materials for industry
- Key driver to realization of Vision 2030

#### Key Agricultural Commodities

#### The main commodities includes:

- Food crops (Cereals, pulses, Root and Tubers)
- Industrial crops(Coffee, Tea, Sugar, Sisal, Pyrethrum, Bixa)
- Horticultural crops (Fruits, Vegetables, Flowers
- Livestock (Dairy, Beef, Small ruminants, Poultry)
- Aquaculture

### Contribution of Agricultural Mechanization to the Sector

- Increase labour productivity
- Increase land productivity
- Decrease cost of production
- Enhance quality of produce/products
- Remove of drudgery
- Involvement of youth in agricultural mechanization to replace ageing farmers

#### Contribution Cont.

- Strengthen entrepreneurship
- Conservation of soil and water
- Industrialization through cottage industry
- Value addition through agro-processing
- Create employment and incomes

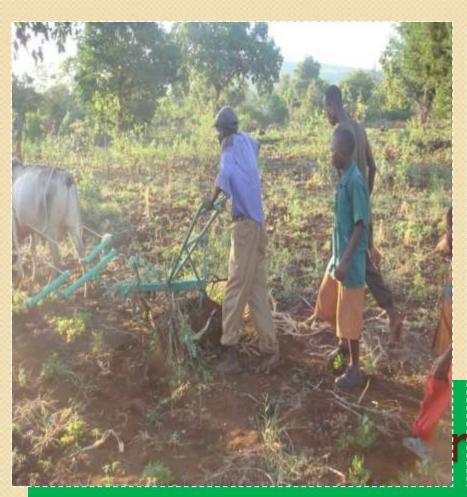
## Sources of Power and Level of Agricultural Mechanization

Agricultural production systems in kenya rely on the following sources of power:-

- Human labour at 50%
- Animal Draught power at 20%
- Motorized power at 30%

#### Draft Animal Power(DAP)

#### Walking Tractor





#### DAP in Ploughing

#### Farm Tractor





#### Key Players in Agricultural Mechanization

- Government Institutions (AMS, ATDC, ADC, NYS)
- Manufacturers, dealers and distributors
- Service Providers
- Farmers
  - Research Instutions

### AGRICULTURAL MECHANIZATION SERVICE (AMS) STATIONS

- The 24AMS offers hire services to farmers across the country in:-
  - Dam construction and de-silting
  - Open up new land to agriculture through bush clearing, ripping, levelling, and ploughing, harrowing, planting, spraying and harvesting.
  - Construction of farm access roads
  - Construction of soil conservation structures

## Agricultural Technology Development Centres (Atdc)

There are 10 national stations established based on various agricultural ecological zones and their main role is to:

- Identify, test and integrate agricultural technologies to farming systems.
- Capacity building and promotion of adoption of appropriate tested and validated agricultural technologies.

#### **Challenges Facing Mechanization**

- Inadequate machinery
- Inadequate staff; plant operators and mechanics
- Inadequate mechanization extension
- Inadequate access to mechanization technologies
- Lack of adequate credit and finance to farmers and private contractors
- Inadequate aftersales and service back-up

### Challenges Cont.

- Decreasing land sizes
- Enterprises that does not support mechanization business model.
- Vast area of coverage for the Govt.
  mechanization stations
- In adequate resources/ funding for stations
- Gender and youth imbalance in agriculture
- Aged farming citizens

### INTERVENTIONS BY STATE DEPARTMENT OF AGRICULTURE (SDA)

- The Ministry is developing an agricultural mechanization policy to guide the sub –sector.
- Strengthening of agricultural mechanization stations and ATDCs
- Support farmer cooperatives in rice growing irrigation schemes.
- Community Marketing infrastrutures
- Establishment of Agricultural Mechanization
  Research Institute under KARLO
- Irrigation Development
- Capacity building for county Staff

### Pillars of Mechanization Policy

- Research and Technology Development
- Local Manufacturing and Distribution
- Agricultural Mechanization Quality Assurance
- Investments in Agricultural Mechanization
- Extension and Technology Adoption
- Soil and Water conservation,
- Youth in Agricultural mechanization
- Environment and Climate Change
- Institutional and Legal Framework

### **Way Forward**

- Reform and transform agricultural mechanization extension services
- Develop framework for Public Private
- Partnership in service delivery.
- Increase access to affordable credit for acquisition of agricultural machinery and equipment.
- Promote local manufacture and distribution
- Capacity building for staff and other stakeholders to be enhanced

