

Agricultural Mechanization in Kenya



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Mechanization Strategy

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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 Institutions

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 infrastructures
- 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

ASANTE SANA.

