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SCHEMES UNDER FARM MECHANIZATION

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Introduction

Agricultural mechanisation is the production and utilization of equipment that can replace labor-intensive manual labour and animal power in agricultural operations. It minimizes the tedium involved with agricultural work, gets around labour and time constraints to accomplish operations in the optimum timespans, and can have an impact on agriculture's environmental footprint, resulting in sustainable results. It encompasses the use of various power sources and improved farm tools and equipment with the goal of reducing the labor-intensive tasks performed by humans and draught animals, improving cropping intensity, precision in metering and placing inputs, and timelines of efficient utilisation of various crop inputs (seed, chemical, fertiliser, irrigation, water, etc.), as well as reducing losses at various phases of agricultural production. Farm mechanization's ultimate goal is to increase output and productivity while minimising production costs. Agricultural productivity and farm mechanisation are strongly correlated, according to empirical data. Compared to other states, states having more access to farm power exhibit better levels of productivity (Singh et al., 2011). (Singh et al., 2011). Furthermore, it facilitates value addition, the development of agro-processing businesses for the generation of additional income and employment from agricultural products, and the preservation of the produce and byproducts from qualitative and quantitative damages. It is a crucial component of the user's overall growth in rural India.

In Andhra Pradesh, there has been a significant advancement in the mechanisation of agriculture, even though there is very uneven distribution. Small and dispersed farm holdings, financially strapped farmers, a lack of understanding among marginal farmers, and the problem of dry land agriculture were some of the earliest issues with farm mechanisation. The majority of these issues have been resolved in our state due to a persistent focus on agricultural mechanisation by the succeeding governments, who provided financial assistance by granting subsidies to the farmers in order to purchase farm

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equipment that fitted the requirements. Although while issues like small holdings and rain-fed agriculture still exist, there is a broad sense of concern about the prospective of this sector's growth. The core issue would be that we are still far behind in terms of farm mechanisation as a whole, which necessitates the use of modern, highly mechanised farm equipment.

Schemes providing funding for Farm Mechanization

1) State Development Plan (SDP)-

Aims to provide specific instruments or implements to certain farmers. This machinery conducts a single operation in a crop or a portion of several activities. Usually, the State Government pays for this through SDP (State Development Plan).

2) Rashtriya Krishi Vikas Yojana (RKVY) –

Central Sector Scheme with a 60:40 funding ratio (Central : State). aims to provide a group of farmers (Rythu Mithra Groups, Joint Liability Groups, etc.) with a crop-based group (set) of machinery or equipment. These sets of equipment are intended for carrying out all or most of the practical farm operations for a specific crop. The Government of India is financing this under RKVY (Rastriya Krishi Vikas Yojana).

3) Sub-Mission on Agriculture Mechanization (SMAM):

The Ministry of Agriculture and Farmers Welfare, Government of India, launched the Sub-Mission on Agricultural Mechanization in 2014–15. It aims to extend the utilization of farm mechanisation to marginal and small farmers as well as to areas that have limited access to power. For the provision of farm equipment, the Central Sector Scheme has a financing distribution of 60:40 (Central: State). 100% central funding is provided for training and demonstrations.

In India between 2014–15 to March 2022, 5,490.82 crore rupees have been set aside for agricultural mechanisation. A total of 13, 88,314 units of machinery and equipment have been subsidised and supplied to farmers. To provide agricultural machinery and equipment to farmers on a rental basis, 18,824 custom hiring centres, 403 high-tech hubs, and 16,791 farm machinery banks have been formed. A total of Rs. 585.50 crore has already been released for the current financial year, 2022–23, in order to build 3,468 CHCs, 64 Hi-tech centres, and 2281 village-level farm machinery banks, as well as to distribute around 75,391 equipment on a subsidised basis (Farmers Income, Ministry of Agriculture and farmers welfare).

Custom Hiring Centres in Andhra Pradesh

Horticulture and agriculture crops are diversified and grown in different agroclimatic zones of the state. Notwithstanding the whims

of nature and other issues like the shortage of agricultural labourers and farmers migrating from rural to urban areas, the challenge is to increase yields. Researchers must mechanise farming operations in order to boost output and productivity. Although subsidies are offered for agricultural equipment, the expensive cost of farm equipment may prevent all farmers from purchasing it. Hence, the formation of Custom Hiring Service Centers (CHCs) is beneficial for farmers, particularly small and marginal farmers.

In Andhra Pradesh through RBKs, state has providing opportunity for the farmers to get farm machineries from custom hiring centers by forming a group of five members. State provides 40% subsidy and 60 % loan given to the farmers by the banks and amount limited of Rs.15 lakhs and farmers have to repay the amount to the banks within the time span of 10 years.

NEED OF FARM MECHANIZATION

a) To enhance food grain productivity and output in order to meet international standards.
b) To ensure all agricultural operations run smoothly.
c) Efficient use of fertilisers, water, inputs, and other natural resources.
d) To fulfill the rising population's requirements while retaining almost the same amount of agricultural land.
e) Possessing a sufficient amount of farm power is essential for timely farm activities that boost output and productivity and handle crop products with care to minimise losses.

Effective machinery helps productivity rise by roughly 30%, in addition to this allowing farmers to grow a second crop and making agriculture more profitable. Mechanization's economic advantage as a percentage, Up to 12-34 percent more productive, the seed-cum-fertilizer drill enables seed saving (20), fertiliser savings (15–20), crop intensification (5–22), and an increase in farmers' gross income (29–49). (Report of the Sub-Group on Agricultural Implements and Machinery for Formulation of 9th Five Year Plan, Govt. of India).

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