Sub-Mission on Agricultural Mechanization (SMAM)

Government schemes are very important for the UPSC exam. Questions are directly asked about them in the UPSC Prelims and even in the mains, a good knowledge of govt. schemes help in framing well-rounded answers. In this article, you will learn all about the Sub-Mission on Agricultural Mechanization (SMAM), an important govt scheme in the agriculture sector.

What is the Sub-Mission on Agricultural Mechanization?

The Sub-Mission on Agricultural Mechanization (SMAM) was launched in 2014-15 by the Ministry of Agriculture and Farmers' Welfare, GOI.

- It is aimed at enhancing the **reach of farm mechanization** to marginal and small farmers and also to areas where power availability is low.
- Agricultural machines are important to increase productivity of agriculture. The demand for agricultural products including food is ever increasing whereas the land available for agriculture is limited. This entails having better tools and methods for carrying out agricultural activities. This is where farm mechanization comes into the picture.
- This is especially true for India since with only 2.4% of the world's geographical area and 4% of its water resources, India has to support 17% of the human population of the world and 15% of the livestock population.
- Farm power availability is skewed across the different regions of India with states like Punjab, Haryana, Western UP and Western Rajasthan showing a greater than the national average of 2.02 kW/ha. Other regions like eastern and north-eastern regions are lacking in this direction.
- The scheme will be implemented in all the states, to promote the usage of farm mechanization and increase the ratio of farm power to cultivable unit area up to 2.5 kW/ha.
- The SMAM scheme has both centrally sponsored and central sector scheme components.
    - In the centrally sponsored scheme components, the Government of India funds 60% of the cost and the states' share is 40% in all states except northeastern and Himalayan states where the ratio is 90:10 wherein GOI funds 90%. In UTs, the central share is 100%.
- The SMAM scheme is overseen at the national level by the National Steering Committee (NSC) under the Chairmanship of the Secretary, Agriculture Ministry. At the state and district levels, there are executive committees to handle the scheme at those levels.
- The SMAM is a sub-mission of the National Mission on Agricultural Extension and Technology (NMAET).

SMAM Scheme Objectives

The stated objectives of the SMAM scheme are as follows.

1. Enhancing the reach of farm mechanization to small & marginal farmers and to the regions where farm power availability is low.
2. Promoting 'Custom Hiring Centres' to mitigate the adverse economies of scale caused due to small landholding and the high cost of individual ownership.
3. Generating awareness among stakeholders through demonstration and capacity building activities.

4. Developing hubs for hi-tech & high value farm equipment.
5. Ensuring performance testing and certification at designated testing centres.

For important govt schemes related to agriculture, check the following table:

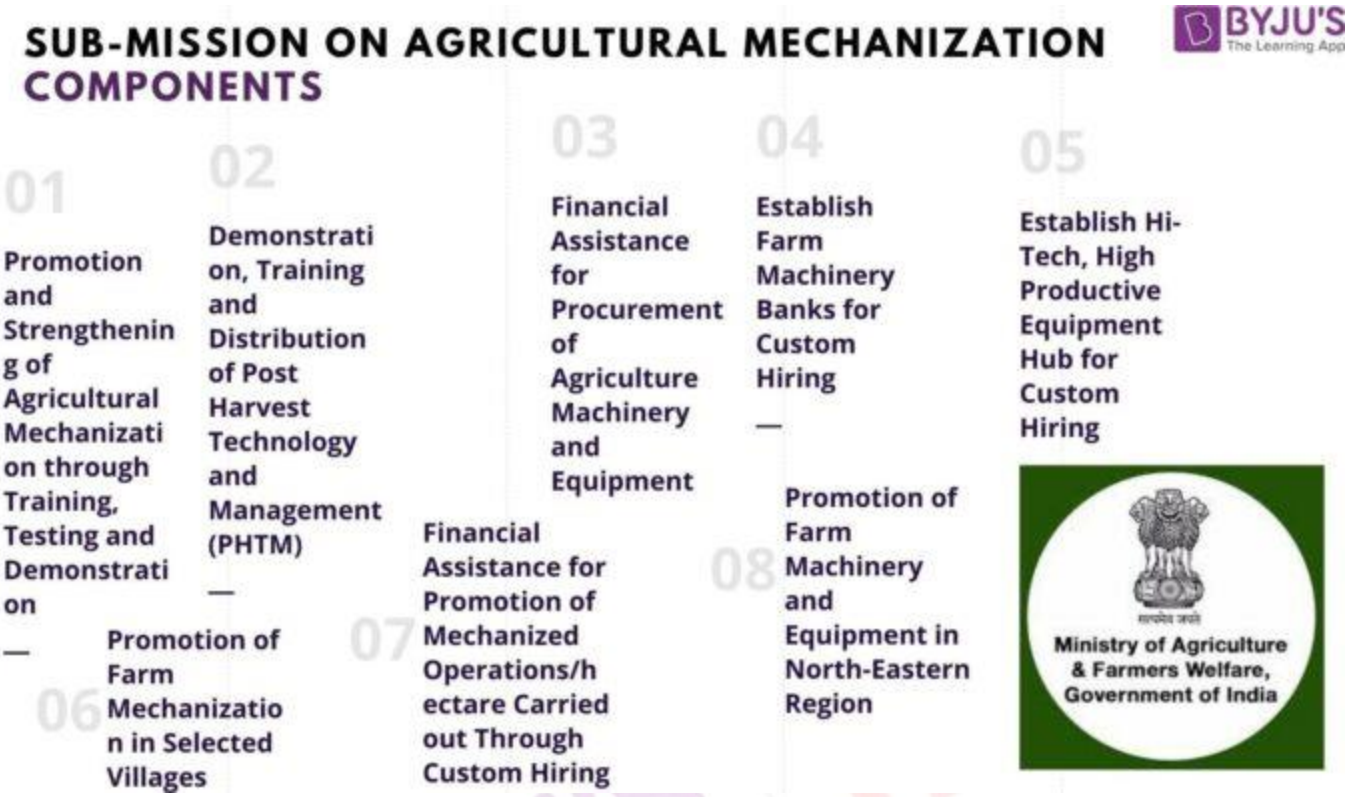
National Mission for Sustainable Agriculture	**Pradhan Mantri Krishi Sichayee Yojana (PMKSY)**
Rashtriya Krishi Vikas Yojana (RKVY)	Micro-Irrigation Fund
KUSUM Scheme	PM-KISAN (Pradhan Mantri Kisan Samman Nidhi) Scheme
Atal Bhujal Yojana (ABY)	Mission for Integrated Development of Horticulture (MIDH)

SMAM Scheme Strategy

The SMAM scheme strives to achieve its objectives through the following strategies.

- Conducting performance testing for different farm machineries and equipment at the designated State Agricultural Universities (SAUs), 4 Farm Machinery Training and Testing Institutes (FMTTIs) and institutions under ICAR.
- Providing on-field and off-field training and demonstration for boosting farm mechanization.
- Giving financial assistance to farmers to procure farm machinery and implements.
- Setting up custom hiring centres of location and crop specific farm machinery and implements.

Sub-Mission on Agricultural Mechanization Components



What are the benefits of agricultural mechanization?

Some of the benefits of agricultural or farm mechanization are as under:

- Increased productivity.
- Increased efficiency and per man productivity (increased labour efficiency).
- Increased Yield of Land Per Unit of Area.
- Lowered cost of work.
- Reduced demand for work animals for ploughing, water lifting, harvesting, transport, etc. (The cost of maintaining animals is more compared to the cost of maintaining machines).
- Improved agricultural techniques.
- Reduced drudgery in farm activities.
- Shift from subsistence farming to commercial agriculture.
- Increased farm incomes.
- Releases manpower for non-agricultural activities.

What are the challenges in agricultural mechanization?

Some of the challenges associated with farm mechanization in India are as follows:

- Small sized farms (majority of Indian farmers are small and medium landholding farmers).

- Surplus agricultural workers.
- Surplus cattle in the rural areas.
- Illiterate and uneducated farmers.
- Shortage of power in many rural and remote areas of India.