

National Mission for Sustainable Agriculture (NMSA)

National Mission for Sustainable Agriculture (NMSA) recently came up in the news when Ritti Village in Udhampur District became the first Panchayat to be adopted under the mission in Jammu and Kashmir.

What is NMSA? It is one of the major missions of the [National Action Plan on Climate Change \(NAPCC\)](#). Change in agricultural practices also plays a crucial role in the mitigation of climate change effects. This mission tries to comprehensively revamp the agricultural practices so that the desired objectives of the Nationally Determined Contributions (NDC's) can be achieved.

Read about other missions under NAPCC linked below:

National Water Mission	National Mission for Sustaining Himalayan Ecosystem (NMSHE)
National Mission on Sustainable Habitat (NMSH)	National Solar Mission
National Mission for Enhanced Energy Efficiency (NMEEE)	Green India Mission (GIM)

What are the Strategies Associated with NMSA?

1. Steps would be taken to promote a combined system of farming which would encompass the following

- Covering all the varieties of crops
- Livestock farming and Fisheries
- To give an extra impetus to the scope of livelihood, there will be a focus on plantations and pasture-based composite farming.
- Mitigate the risks associated with the failure of crops through supplementary or residual production systems.

2. Give thrust to the adoption of technologies that will help in protecting resources during extended spells of dry seasons or droughts or during heavy floods caused by excess rains.

3. Promote new water management techniques that will help in the effective and optimum utilisation of water resources.

4. Promoting better agronomic techniques for

- Higher productivity in farms
- Better soil conservation
- Better soils water holding capacity
- Optimum utilisation of energy and chemicals
- Higher soil carbon storage

5. Database on soil through

- Survey of Land use pattern
- By researching the profile of soil
- Using GIS technology for Soil analysis
- To help adopt location and soil specific crop management practices and optimise fertilizer use.

6. Promotion of nutrient practices based on location and crop type for

- Enhancing the health of the soil
- Increasing productivity of crops
- Enhance the quality and protect the land resources and water resources

7. Collaborating with institutions and the domain experts of the respective field to develop climate change mitigation techniques for specific agro-climatic conditions.

8. Co-ordination, converging and utilising investments from other schemes/missions like [MGNREGS](#), Mission for integrated development of horticulture (MIDH), RKVY, National Food Security Mission, IWMP. National Mission for Agriculture Extension and Technology (NMAE&T) etc.

What are the 4 Major Programmes of NMSA?

1. Rainfed Area Development (RAD)

- Develops an area-based approach for the development and conservation of natural resources along with farming systems. It is a combination of various aspects of agriculture such as crops, fishery, livestock, horticulture, forestry and other agro-based activities which will act as a source of generating revenue.
- Implement practices that will regulate soil nutrient based on soil health card, development of farming lands.
- Using an approach that is cluster-based, with an area of 100 hectares or more
- Develop new property resources which would be common, like a bank for grains, fodder, shredders for biomass, combined marketing initiative.

2. On-Farm Water Management (OFWM)

- The primary focus is optimum utilisation of water by promoting advanced on-farm water conservation equipment and technologies.
- Emphasis on efficient harvesting and management of rainwater.
- Water conservation on the farm itself by digging farm ponds utilising funds from MGNREGA mission.

3. Soil Health Management

- Promote sustainable practices which preserve the health of soil based on a specific location and the type of crops that could be grown in those locations by taking the help of various techniques like management of residue, organic farming by making new maps with details on soil fertility and linking them with macro-management and micromanagement of nutrients, optimum land use, right utilisation of fertilisers and reducing degradation & erosion of soil.
- Use of thematic maps generated with the help of Geographical Information System (GIS) technology and the databases created on soil and land with the help of scientific surveys.

- State Government, Soil and land Use Survey of India (SLUSI), National Centre of Organic Farming (NCOF), Central Fertilizer Quality Control and Training Institute (CFQC&TI).

4. Climate Change and Sustainable Agriculture: Monitoring, Modeling and Networking (CCSAMMN)

- Create and disseminate knowledge and updated information on climate change.
- Support pilot blocks for spreading rainfed technologies and co-ordinate with other schemes or missions like MGNREGS, NFSM, RKVY, IWMP, Accelerated Irrigation Benefit Program (AIBP), NMAET.

Regulations for successful implementation of the mission

1. Ministry of Environment and Forests have made a set of guidelines to ease out the regulatory regime for the following

- Harvesting
- Transit of agroforestry species

2. Development of comprehensive agriculture policy, National Agroforestry Policy 2014, which is expected to facilitate the agroforestry practices amongst the states.

3. Regulatory framework of CAMPA will oversee the allocation, disbursement and utilization of funds under the programme.

NMSA – Sub-Mission on Agro-Forestry Scheme

SMAF stands for Sub-Mission on Agro-Forestry which is a scheme being run under National Mission for Sustained Agriculture since 2016-17.

It was recommended under National Agroforestry Policy 2014 to promote plantations on farmlands.

Aim of the SMAF – The Sub-Mission on Agro-Forestry aims to expand the tree coverage on farmland in complementary with agricultural crops. The focus of the SMAF lies on:

1. To achieve the quantifiable benefits such as increase tree cover to enhance carbon sequestration
2. Enrichment of soil organic matter
3. Availability of quality planting material
4. Improvement in livelihood
5. Productivity enhancement of crop and cropping systems
6. Development of an information system

Objectives of SMAF:

1. Productivity, Employment, Income of Rural Household – The mission aims to promote tree plantations integrating them with crops and livestock so as to help the rural household with better income and employment opportunities.
2. Availability of Quality Materials – Planting materials like seeds, seedlings, clones, hybrids, improved varieties are made accessible to rural households especially small farmers.
3. Bring awareness to types of agroforestry practises depending upon different agro-ecological regions and land use conditions.
4. To provide capacity-building support to the agroforestry sector.

Important Facts about SMAF:

1. The scheme is implemented only in the states having liberalized transit regulations for the transport of timber and will be extended to other states as and when such relaxations are notified by them.
2. The scheme promotes endemic species or tree species that come with medicinal value. Exotic species are not promoted by the scheme.
3. Farmers must have a soil health card to get the benefit under the programme.

The convergence of SMAF with the following schemes:

1. National Food Security Mission
2. [Rashtriya Krishi Vikas Yojana \(RKVY\)](#)
3. National Mission on Oilseeds and Oil Palm
4. Mission for Integrated Development of Horticulture
5. [Pradhan Mantri Krishi Sichayee Yojana \(PMKSY\)](#)