

# National Food Security Mission

One-third of India's population is estimated to be absolutely poor and one-half of all children malnourished. Food availability is a necessary condition for food security. Furthermore, food production in India suffers from a huge supply demand gap, amplified by food wastage (amounting to around 40% of food produced). The lack of adequate storage facilities have compounded to the problem. With the growth rate of agriculture dropping below 4%, the National Food Security Mission (NFSM) aims to increase food production.

## Extent of the problem

- According to the International Policy Research Institute, India is ranked 67<sup>th</sup> out of 81 countries in the Global hunger index-2011.
- The National Rainfed Authority reports that around 60% of the net sown area in India is rainfed, implying that dry farming techniques need to be promoted.
- 17,368 farmers committed suicide in 2009 according to National crime records bureau.

## Objectives

The National food security mission (NFSM) was launched in 2007 as a centrally sponsored scheme. The mission was successful and achieved the targeted production of rice, wheat and pulses. The mission is being continued in the 12<sup>th</sup> plan with new targets of additional production of 25 million tons of food grains comprising 10 million tons of rice, 8 million tons of wheat, 4 million tons of pulses and 3 million tons of coarse cereals by the end of 12<sup>th</sup> plan.

## Framework for Implementation

The National Food Security Mission has a presence at the National, State, District and village level.

### National Level

- A general council, under the chairmanship of Minister of Agriculture will be the policy-making body providing guidance to the mission.
- National food security mission executive committee (NFSMEC), under chairmanship Secretary, department of agriculture & cooperation will oversee the mission and approve state action plans.

### State Level

- State Food Security Mission Executive Committee (SFSMEC), under the chairmanship of Chief Secretary to oversee the mission in the state.
- State Agricultural Management and Extension Training Institute (SAMITI), would be an autonomous agency nominated/created by the state government implementing the mission in the state.

### District Level

- District Food Security Mission Executive Committee (DFSMEC), under the chairmanship of District Collector/CEO of Zila Parishad will oversee the mission in the district and prepare action plans.
- Agricultural Technology Management Agency (ATMA), would be an autonomous agency created/nominated by the state government at the district level and will implement the mission in the district.

### Village Level

- Panchayati raj institutions would be involved in identification of beneficiaries and selection of interventions.

## Funding Mechanism

The Department of agriculture and cooperation would communicate component wise tentative outlay to each state for developing annual action plan. The District food security mission executive committee will prepare annual action plan keeping in view their priority and potential and submit it to the State food security mission executive committee, based on which a state action plan will be prepared. The state action plan along with a report on implementation of NFSM in the previous year would be submitted by the state to the National food security mission executive committee. The mechanism for release of funds is demonstrated.

Department of agriculture and cooperation (after approval of NFSMEC)

State Government (It will make fund available to the State level agency, eg. SAMITI)

State level agency would release funds to the District level agency, eg. ATMA

District level agency will release funds to the nodal departments for procurement of required inputs

## Interventions under the Mission

- **Demonstrations** – Large crop areas will be selected for demonstration of production and protection technologies. The field would be divided into two parts, one for improved practices and one for present practices. Interventions would include demonstration of system of rice intensification(SRI) technique, green manuring, new high yielding variety(HYV) seeds, use of lime/liming material to correct soil acidity, soil treatment for termite control. The assistance available for demonstration would be Rs 7500 per hectare (rice/wheat/pulses) and Rs 5000 per hectare (coarse cereals).
- **Seed distribution** – Assistance to farmers for purchase of seeds distributed by agencies such as- National Seeds Corporation, Indian council of agricultural research (ICAR) institutes, private companies, will be available for areas less than 2 hectares per farmer. The subsidy to the farmer is reimbursed to the agency. Assistance would vary as per seed/crop as mentioned (or 50% of cost, whichever is less)
  - Rice- Hybrids: Rs 50/; Other varieties less than 10 years old: Rs 10/kg.
  - Wheat- varieties less than 10 years old: Rs 10/kg.
  - Pulses- varieties less than 10 years old: Rs 25/kg.
  - Coarse cereals- Hybrids: Rs 50/kg; Other varieties less than 10 years old: Rs 15/kg.

- **Nutrient management** – A farmer will be given assistance for a maximum of 2 hectare area for the target crop. Following assistance or 50% of the cost, whichever is less, will be provided-
  - Micronutrient (e.g. cobalt, boron, zinc, etc.)- Rs 500 per hectare.
  - Liming (application of calcium and magnesium rich materials to the soil in forms of chalk, limestone, etc.) – Rs 1000 per hectare.
  - Gypsum/ other sources of sulphur – Rs 750 per hectare.
  - Bio fertilizers (such as rhizobium, phosphate solubilizing bacteria) in pulses - Rs 100 per hectare.
- **Plant Protection** – Financial assistance of Rs 500 per hectare or 50% of cost whichever is less will be provided to farmers for maximum area of 2 hectares for integrated pest management including bio-pesticides and weedicides.
- **Farm mechanization** – List of beneficiaries for other interventions will be prepared by the village Panchayat, however in the case of farm mechanization, it will be prepared by zila parishads. Some of the machines for which assistance is available are given below.
  - Drum seeder in rice- Rs 1500 per machine or 50% of cost, whichever is less.
  - Sprinkler set- Rs 10,000 per hectare or 50% of cost, whichever is less.
  - Ridge furrow planter- Rs 15000 per machine or 50% of cost, whichever is less.
- **Local initiatives** – States will be provided financial assistance for location specific interventions for boosting the production of rice, wheat, pulses and coarse cereals. These include augmentation of water resources, development of godowns, machines for post-harvest processing, etc. These interventions will be selected in consultation with the Zila parishad. The assistance will be 5% of the total budgetary allocation to the state, limited to 50% of the cost of each intervention.

## New Approach to Increase Productivity

In the 12<sup>th</sup> plan, under NFSM, cropping system approach is envisioned to grow both cash crops and food crops through crop rotation, for e.g. cotton-wheat, cotton-mustard, jute-rice-potato, bajra-sugarcane-ratoon-wheat, etc. NFSM-commercial crops (cotton, jute, sugarcane) will be implemented by Department of agriculture and cooperation through Directorate of cotton development (Mumbai), Directorate of jute development (Kolkata) and Directorate of sugar development (Lucknow). The respective directorate will formulate annual action plan and act as nodal office of the given commercial crop. All components will be 100% funded. Funds will be released by Department of agriculture and cooperation to respective directorate with the approval of National food security mission executive committee. Panchayati raj institutions will be involved in identification of beneficiaries and priority areas for commercial crops. Some of the initiatives under the mission are:

- **Online pest monitoring and advisory services** – It will provide web based pest monitoring and advisory services about emerging pests, diseases and other significant problem with cotton crop. It will be implemented by National center for integrated pest management, New Delhi and will be covering 15,000 farmers in 30 districts of 9 states. An assistance of Rs 4.5 lakh per district and administrative cost will be provided.
- **Jute seed production** – The production programme of breeder, foundation and certified seeds will be undertaken. The seed producing agencies would be required to submit a proposal to Directorate of jute development, Kolkata.
- **Tissue culture** – An incentive for tissue culture raised plantlets/ seedlings of sugarcane will be provided at Rs 3.5 per seedling limited to 50% of project cost to sugarcane institutions and sugar factories.

## Increasing rice productivity through SRI

System of rice intensification (SRI) is a technique for rice cultivation with the application of minimum quantity of water and the individual transplanting of very young seedlings. These seedlings are spaced widely in 25x25 cm square pattern for better aeration. Rather than keeping the fields saturated, they are kept moist minimizing aerobic conditions. Compost or manure is applied rather than synthetic fertilizers. This leads to greater root growth and productivity. SRI method uses 40% less water than conventional methods of rice cultivation.

International association of agricultural economists did cost-returns analysis of SRI in Bardhaman district of West Bengal (2009-10). It was found that the cost of raising nursery for 1 hectare was lower (Rs 954 and Rs 995) than conventional method (Rs 3654 and Rs 4503) in kharif and Rabi season respectively. The total return per rupee of total cost was higher in SRI method (1.58 and 1.92) than in conventional method (1.25 and 1.37) in kharif and Rabi season. The method is useful and should be promoted. The National food security mission seeks to do so via demonstrations for which funding is available under the mission.