

## **Agricultural welfare Schemes of the Indian Government to promote the Farmers -An Overview**

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### **Abstract**

India is an agrarian country where half of its inhabitants still rely on agriculture as the main source of income. Thus, government schemes play a foremost responsibility in the wellbeing of farmers and their farming. Central governments have been initiating diverse schemes from time to time for the upliftment of agricultural fields and farmers connected to them. Farmers face different sorts of challenges as well as floods, barren, natural calamities, insects attack, weather changes, scarcity of money, and whatnot. Hence, it is extremely significant for them to know and be conscious of all the government schemes that the government has initiated for their welfare and betterment.

**Key words:** Sub-Mission on Agricultural Mechanization (SMAM), National Mission for Sustainable Agriculture (NMSA), Pradhan Mantri Krishi Sinchai Yojana (PMKSY), Soil Health Card, E- Nam

### **Introduction**

Agriculture is a significant segment of the Indian economy as it contributes about 17% to the total GDP and provides employment to over 60% of the population. Indian agriculture has registered impressive growth over the last few decades. The rapid growth has helped Indian agriculture marks its presence at the global level. The economic survey for this year brought out important statistics for agriculture, highlighting a buoyant growth in Gross Value Added (GVA) of 3.9 percent in 2021-22 after the sector grew at 3.6 percent in the previous year. Exports of agriculture and allied products also grew by 23.2 percent to \$ 31 billion during April-November 2021. This provides hope to 18.8 percent of Indians who are dependent on agriculture for livelihood. With supply chain interruption and overturn migration seen for the period of the pandemic, the sector as a whole faced threat that was linked to the pandemic. Decoding the increase in agriculture despite the continuing challenges is more than just dismissing it to the lack of pandemic-induced stress as compared to other sectors. To improve credit facilities, support infrastructure, boost up investments, create market facilities, and increase the provision of excellence inputs have been framed by our government to raise up farmers.

### **Sub-Mission on Agricultural Mechanization (SMAM)**

Ministry of Agriculture and Farmers Welfare has launched a Sub-Mission on Agricultural Mechanization (SMAM) in 2014-15 with the objectives of rising the reach of

farm mechanization to small and marginal farmers and to the regions and tricky areas where farm power accessibility is little. To increase automation in the agriculture sector enhanced agricultural equipment and mechanism are necessary inputs for recent agriculture that increase the output of crops also falling human drudgery and expenditure of cultivation. Mechanization too helps in improving the operation effectiveness of other inputs consequently measured to be one of the most significant segments of the agriculture sector to enhance the profits of farmers and development of the agricultural economy. For intensification of farming mechanization in the country and to bring more inclusiveness Sub-Mission on Agricultural Mechanization (SMAM) has been introduced with the main objectives of are to encourage 'Custom Hiring Centre's and 'Hi-tech Hubs of High-Value Machines' to offset the adverse economies of scale arising due to small and uneven landholding and high cost of individual ownership. Creating consciousness amongst stakeholders through demonstration and capacity building activities and ensuring performance testing and certification of agricultural machines at designated testing centers positioned all over the country.

Since the inception of the SMAM, central grants amounting to Rs. 4865 crores have been released to different States during the period from 2014-15 to 2021-22 and through which more than 1323000 machines have been distributed to farmers and more than 15400 Custom Hiring Centers, 360 Hi-

tech hubs, and 14200 Farm Machinery Banks have been established to make machines and equipment available to farmers on rental basis.

### **National Mission for Sustainable Agriculture (NMSA)**

National Mission for Sustainable Agriculture (NMSA) has been formulated for enhancing agricultural productivity particularly in rain fed areas focusing on integrated farming, water use efficiency, soil health management and synergizing resource conservation. The aim of promoting sustainable agriculture through a series of adaptation measures focusing on ten key dimensions encompassing Indian agriculture namely; 'Improved crop seeds, livestock and fish cultures', 'Water Use Efficiency', 'Pest Management', 'Improved Farm Practices', 'Nutrient Management', 'Agricultural insurance', 'Credit support', 'Markets', 'Access to Information' and 'Livelihood diversification'. During XII Five Year Plan, these measures are being embedded and mainstreamed onto ongoing Schemes of Department of Agriculture & Cooperation (DAC&FW) through a process of restructuring and convergence. NMSA will cater to key dimensions of 'Water use efficiency', 'Nutrient Management' and 'Livelihood diversification' through adoption of sustainable development pathway by progressively shifting to environmental friendly technologies, adoption of energy efficient equipments, conservation of natural resources, integrated farming, etc. Besides, NMSA aims at promoting location specific improved agronomic practices through soil health management, enhanced water use efficiency, judicious use of chemicals, crop diversification, progressive adoption of crop-livestock farming systems and integrated approaches like crop-sericulture, agro-forestry, fish farming, etc.

Since 2015-16 an area of 30.69 lakh ha has been brought under micro-irrigation so far. Rainfed Area Development Programme is implemented as a component under National Mission for Sustainable Agriculture since 2014-15 in the country. The program focuses on Integrated Farming System for enhancing productivity and minimizing risks connected with climatic variability. Under this system, crops are integrated with activities like horticulture, livestock, fishery, vermin-organic compost,

green manuring, apiculture, etc. to enable farmers maximizing farm returns for sustained livelihood and mitigate the impacts of drought, flood, or other extreme weather events with the income opportunity from allied activities. Since the inception of the scheme, an area of 3.42 lakh ha has been brought under the Integrated Farming System.

### **Pradhan Mantri Krishi Sinchai Yojana (PMKSY)**

The Government of India has designed Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) with the vision to expand the coverage of irrigation and progress water use efficiency in a focused manner. PMKSY focuses end to end solutions on source creation, distribution, management, field application and extension activities. The Cabinet Committee on Economic Affairs had approved the irrigation scheme on July 1, 2015.

The Centre has prepared the scheme by merging prior irrigation and water management programmes such as Accelerated Irrigation Benefit Programme (AIBP), Integrated Watershed Management Programme (IWMP) and On-Farm Water Management (OFWM) scheme. After the launch of PMKSY in 2015-16, AIBP became a part of PMKSY. Under PMKSY-AIBP, 99 projects having an ultimate potential of 76.03 lakh hectares have been prioritized for completion. Against the balance ultimate potential of 34.63 lakh hectares, 21.45 lakh hectares has been achieved till March 2020. During the period, the average annual rate of completion of projects has increased from 7 to 11, while the average annual rate of potential creation (lakh hectare) has increased from 4.5 to 5.4. The achievement by CADWM component up to March 2021 is 14.96 lakh hectares, along with the formation of 8,562 Water Users Associations. Under PMKSY-AIBP and CADWM, central assistance and the State share is being provided through NABARD under Long Term Irrigation Fund (LTIF). There is also a provision whereby State share can be borrowed from NABARD by the State, with interest subvention beyond 6% to be borne by the Government of India. The use of pressurized pipe irrigation and micro-irrigation is being promoted to increase efficiency. Further, the cropped area in the command of these 99 priority projects is

being assessed by the Bhaskaracharya Institute for Space Applications and Geo-Informatics (BISAG) by using remote sensing techniques and 48.29 lakh hectares has been assessed during 2016-2020.

Under HKKP-SMI, irrigation potential created since the XII plan onwards is 6.85 lakh hectares, while that created under HKKP-RRR of water bodies during this period is about 1.31 lakh hectares. Similarly, under the HKKP-Ground Water component, about 35.44 thousand hectares have been brought under groundwater irrigation till March 2021. Under PMKSY-PDMC, 57.30 lakh hectares has been covered under micro irrigation during 2015-16 to 2020-21. For PMKSY-WDC, during 2015-2021, about 6.38 lakh water harvesting structures have been rejuvenated and 14.01 lakh hectares of additional area was brought under protective irrigation.

#### **Paramparagat Krishi Vikas Yojana (PKVY)**

This scheme which encourage the farmers for traditional and organic farming in India. Under the scheme, the Government of India provides financial assistance to the farmers of Rs 50,000 per hectare every three years for organic inputs, certification, labeling, packaging, transportation, and marketing of organic produce. The scheme focuses on reducing the ill effects of overuse of fertilizers and agrochemicals by promoting organic manures, bio-fertilizers, and bio-pesticides. It helps improve the soil fertility by improving organic carbon in the soil which results in enhancing moisture holding capacity in the field too.

Under the program, financial assistance of Rs 50000/ha/3 years is provided for cluster formation, capacity building, the incentive for inputs, value addition, and marketing. Out of it, Rs 31000/ ha / 3 years is provided for preparation procurement of organic inputs such as bio-organic fertilizers, bio pesticides, seeds, etc. through DBT and Rs 8800 ha 3 years is provided for value addition and marketing that includes post-harvest management practices like storage. A total fund of Rs 1197.64 has been released to states and UTs for the last four years under the program. Financial assistance of Rs 3000 hectare for 3 years is provided for Cluster formation (of 20 ha) and Capacity building including exposure visits, and training of field functionaries.

#### **Micro irrigation fund scheme**

The Department of Agriculture, Cooperation & Farmers Welfare (DAC&FW) is implementing a Centrally Sponsored Scheme of 'Per Drop More Crop' component of 'Pradhan Mantri Krishi Sinchayee Yojana (PMKSY-PDMC)' from 2015-16 in all the States of the country which focuses on enhancing water use efficiency at farm level through Micro Irrigation viz. Drip and Sprinkler irrigation systems. Besides promoting Micro Irrigation, this component also supports micro-level water storage or water conservation/management activities to supplement source creation for Micro Irrigation. An area of 52.93 lakh ha has been covered under Micro Irrigation in the country from 2015-16 to date. Further, 4.84 lakh micro-level water harvesting / secondary storage structures have been created under the scheme to supplement the micro-irrigation.

Recent evaluation studies of the scheme indicate that the coverage of Micro Irrigation is relevant in achieving national priorities such as substantially improving on-farm water use efficiency, enhancing crop productivity, ensuring better returns to farmers, generating employment opportunities, etc. Further, the scheme has been effective in terms of ensuring benefits for farmers e.g. higher productivity; reduction in labor cost, water consumption, power utilization, fertilizer use, etc.

Efforts are being made to converge the 'Per Drop More Crop' Scheme with Atal Bhujal Yojana (ABHY), Namami Gange Districts, Pradhan Mantri Kisan Urja Surakshaevem Utthan Mahabhiyan (PM-KUSUM), Water Harvesting Structures through Watershed Development component of PMKSY to propagate micro-irrigation intensively to contribute in achieving the desired targets to enhance the water use efficiency in agriculture.

With a view to providing impetus to the Micro Irrigation in the country, MIF with a corpus of Rs. 5000 Crore was created with NABARD during 2018-19. The major objective of the fund is to facilitate the States in mobilizing the resources to provide additional incentives to farmers for incentivizing micro-irrigation beyond the provisions available under PMKSY-PDMC. States may also access MIF exclusively for innovative integrated projects (like high

water duty crops like sugarcane/solar linked systems/Micro-irrigation in command area etc.) including projects in PPP mode depending on State-specific requirements. The GoI provides a 3% interest subvention on loans extended to State Govt. under MIF.

Under the ongoing MIF fund, projects for Rs. 3970.17 crores have been approved for a loan under MIF to the States of Andhra Pradesh, Gujarat, Tamil Nadu, Haryana, West Bengal, Punjab & Uttarakhand which would be facilitating bringing of 12.83 lakh ha of the area under Micro Irrigation. Besides, proposals from Rajasthan, West Bengal Maharashtra, Tamil Nadu, and J&K are in pipeline at State levels. More and more states are showing interest in availing assistance from Micro Irrigation Fund considering the potential for Micro Irrigation and its significance.

To further strengthen & expand the adoption of Micro Irrigation systems by the farmers in the county for enhancing water use efficiency at the farm level, a Budget announcement has been made to double the initial corpus of the Micro Irrigation Fund of Rs. 5000 created under NABARD, by augmenting it by another Rs. 5,000 crores.

#### **Mission Organic Value Chain Development for North Eastern Region (MOVCDNER)**

MOVCDNER aims to develop the certified organic production in a value chain mode to link farmers with consumers and to support the development of the entire value chain starting from organic inputs, seeds, certification, and creation of facilities for collection, aggregation, and processing, marketing, and brand-building initiatives. The scheme is being implemented in north eastern states Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, and Tripura.

The scheme started with an average annual allocation of Rs. 134 crore during the last five years has so far covered 74,880 ha area. To double the impact the allocation has now increased to Rs. 200 crores per year with a target to cover an additional 1.00 lakh ha area under 200 new FPOs over a period of 3 year period. Taking a step ahead the scheme besides growing and value-adding the traditional crops is also aiming to bring in high-value crops under contract farming models.

#### **Soil Health Card**

With an objective of conserving and maintaining soil nutrients and soil fertility, On 5th December 2015, the ministry of agriculture introduced the soil health card (SHC) scheme issues soil health cards to the farmers every two years to provide a basis to address nutritional deficiencies in the fields. Under the scheme, soil testing is conducted to analyze the nutrient needs, and then crop-wise fertilizers are recommended accordingly. This reduces cultivation costs by applying of right fertilizers with the right quantity.

In the next five years, the Centre has targeted to cover 400,000 villages under individual farms holding soil sampling and testing, organize 2.5 lakh demonstrations, set up 250 village-level soil testing labs, strengthen 200 soil testing labs, and promotion of micro-nutrients in two lakh hectare area.

#### **Neem Coated Urea (NCU)**

The scheme is being promoted to regulate the use of urea, enhance the availability of nitrogen to the crop and reduce the cost of fertilizer application. NCU slows down the release of fertilizer and makes it available to the crop in an effective manner. The entire quantity of domestically manufactured and imported urea is now neem coated. The reports from the field are positive. The expected saving is 10% of urea consumption, thereby resulting in reduced cost of cultivation and improved soil health management.

#### **Pradhan Mantri Fasal Bima Yojana (PMFBY)/ Restructured Weather Based Crop Insurance Scheme (RWBCIS)**

Pradhan Mantri Fasal Bima Yojana (PMFBY) & Restructured Weather Based Crop Insurance Scheme (RWBCIS) were launched from Kharif 2016 to provide comprehensive crop insurance coverage from pre-sowing to post-harvest losses against non-preventable natural risks. These schemes are only risk mitigation tools available to farmers at extremely low premium rates payable by farmers at 2% for Kharif crops, 1.5% for Rabi Crop, and 5% for annual commercial/horticultural crops. The balance of the actuarial premium is shared by the Central and State Governments on a 50 : 50 basis. The schemes are voluntary for States and available in areas and crops that are notified by the State Governments. Further, the schemes are compulsory for

loanee farmers and voluntary for non-loaned farmers.

During Kharif 2016 season, a total of 23 States implemented both PMFBY (21) and RWBCS (12) and during Rabi 2016-17, 24 States and 3 Union Territories implemented PMFBY (25) and RWBCIS (9). Overall coverage of both the schemes is 401.52 lakh farmers and 385 lakh ha. area insured for a sum of Rs. 133106 crore in Kharif 2016 and 172.67 lakh farmers and 195 lakh ha. area insured for a sum of Rs. 71696 crore during Rabi 2016-17 season.

#### **E- Nam**

In order to connect the existing agricultural mandis on a common online market platform for trading agricultural commodities, the Government of India, launched a pan-India portal, e-National Agriculture Market (eNAM) on April 14, 2016.

So far, e-NAM has connected nearly 1,000 mandis in 18 states and three union territories. Implemented by Small Farmers Agribusiness Consortium (SFAC), eNAM aims at reducing transaction costs, bridging information asymmetries, and helping the expansion of market access for farmers and other stakeholders. Since the implementation, e-NAM has registered a user base of 1.66 crore farmers, 1.31 lakh traders, 73,151 commission agents, and 1,012 farmer producer organisations (FPOs).

#### **Interest Subvention Scheme (ISS)**

The Government provides interest subvention of 3% on short-term crop loans up to Rs.3.00 lakh. Presently, the loan is available to farmers at an interest rate of 7% per annum, which gets reduced to 4% on prompt repayment. Further, under Interest Subvention Scheme 2016-17, in order to provide relief to the farmers on the occurrence of natural calamities, the interest subvention of 2% shall continue to be available to banks for the first year on the restructured amount. In order to discourage distress sale by farmers and to encourage them to store their produce in warehouses against negotiable warehouse receipts, the benefit of interest subvention will be available to small and marginal farmers having Kisan Credit Card for a further period of up to six months post-harvest on the same rate as available to crop loan.

Agriculture is a State subject and the State Governments are primarily responsible for

the growth and development of the agriculture sector in their respective States. The Government supplements the efforts of States through appropriate policy measures and budgetary support. Presently the approach of the Government of India has shifted from a production-centric to income-centric platform in the agriculture sector and the above schemes are being implemented for making farming viable.

#### **PM Kissan Samman Nidhi Yojana**

The Pradhan Mantri Kisan Samman Nidhi (PM-KISAN) Scheme is a Central Sector Direct Benefit Transfer (DBT) Scheme that was launched on February 24, 2019. under which, monetary assistance of Rs.6000/- per annum is provided to all landholding farmer families across the country, subject to certain exclusion criteria relating to higher income strata, to enable them to take care of expenses related to agriculture and allied activities as well as domestic needs. The amount is transferred in three 4-monthly installments of Rs. 2000/- each, directly into the bank accounts of the beneficiary farmers identified by the State/UT Governments. Payment is done on the basis of the Aadhaar seeded data of beneficiaries, except for the State/UTs of Assam, Meghalaya, Jammu & Kashmir, and Ladakh, which have been given exemption in this regard up to 31st March 2021. The scheme supplements the financial needs of the small and marginal farmers in buying farm inputs and other agricultural expenses. The scheme aims to protect the farmers from falling into the ferocious traps of local moneylenders and ensures their continuance in the farming activities.

#### **PM-Kusum**

In order to decrease the utilization of diesel and electricity for agricultural irrigation, the Cabinet Committee on Economic Affairs (CCEA) accepted Pradhan Mantri Kisan Urja Suraksha Evam Utthaan Mahabhiyaan (PM-Kusum) scheme on February 19, 2019. With a total Central financial support of Rs 34,422 crore, the PM Kusum scheme aims to add solar and another renewable capacity of 25,750 MW by 2022. Under the scheme, the Ministry of New and Renewable Energy has targeted to install 10,000 MW of decentralized grid-connected renewable power plants of individual plant size up to 2 MW, installation of 20 lakh solar-powered agricultural pumps

of individual pump capacity up to 7.5 HP, and solarisation of 15 lakh grid-connected irrigation pumps of individual capacity up to 7.5 HP.

### Conclusion

The farming sector is of essential importance for the region. It is undergoing a procedure of conversion to a market economy, with extensive changes in the social, legal, structural, productive, and supply set-ups, as is the case with all other sectors of the economy. Agriculture is of vital importance to the developing world. Two-thirds of the population draws its livelihood from agriculture as farmers and farm workers. These groups consist of the huge bulk of the world's poorest people. The Government of India has been implementing several programs for the eradication of poverty among the people who are engaged in the agricultural sector in India. But all the schemes have not reached easily to the farmers who are settled in remote areas. For reaching these welfare schemes quickly to the farmers, a special team of officers should be appointed in various levels by our government to keenly watch this. Only if so these all the programs will help to overcome the obstacles to increase agricultural output and have also will benefit the poor.

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