



Government Initiatives for Sustainable Agricultural

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Abstract:

The agriculture initiatives a vital role in improving farmers' livelihoods and strengthening the Sustainable Agriculture. By providing financial support, modern farming techniques, quality seeds, irrigation facilities, and farmer income, government scheme increase agricultural productivity and sustainability. India's economy depends heavily on the agricultural industry, which employs a sizable section of the workforce and makes a large contribution to the GDP of the country. Over the years, the Indian government has put in place a number of agricultural initiatives to boost farmers' livelihoods, increase farm production, and encourage sustainable growth. This abstract overview of a few Indian government agriculture programs, emphasizing their goals, methods of implementation, and overall effects. This paper describes sustainable development of agricultural initiatives in India through a thorough examination of pertinent literature and official records. It looks at how these programs have changed to deal with the various issues that the agriculture industry faces, such as resource limitations, market volatility, and climate change. The abstract looks at well-known programs like the National Agricultural Market (e-NAM) to establish a single platform for smooth agricultural trade, the Soil Health Card Scheme to increase crop yields and soil fertility, and the Pradhan Mantri Kisan Samman Nidhi (PM-KISAN), Kisan Credit Card, to give farmers direct income support. Additionally, the abstract explains the Pradhan Mantri Fasal Bima Yojana (PMFBY) and Rashtriya Krishi Vikas Yojana (RKVY), National Mission for Sustainable Agriculture (NMSA) which are intended to protect farmers from crop losses and improve sustainable agricultural infrastructure, respectively

Keywords: Government, PM-KISAN, Kisan Credit Card, Rashtriya Krishi Vikas Yojana, Pradhan Mantri Fasal Bima Yojana, National Mission for Sustainable Agriculture (NMSA)

Introduction:

In India refers to farming **Sustainable Agriculture** Government Initiatives PM-KISAN (Pradhan Mantri Kisan Samman , Pradhan Mantri Kisan Maan-Dhan Yojana , PMFBY Pradhan Mantri Fasal Bima Yojana:, Kisan Credit Card, Agriculture Infrastructure Fund (AIF (KCC) Scheme, PM Kusum , **National Mission for Sustainable Agriculture (NMSA)**, Agriculture Infrastructure Fund (AIF), e-NAM PKVY (Paramparagat Krishi Vikas Yojana), SMAM (Sub-Mission on Agricultural Mechanization) These schemes encourage the efficient use of

water, soil conservation, organic farming, crop diversification, use of renewable energy, and reduction of chemical inputs. By supporting farmers through financial assistance, training, and modern technology, sustainable agriculture schemes help protect the environment while ensuring long-term agricultural productivity and farmer income for rural development. Although adoption of these concepts is still increasing, government initiatives support them

Objective:

1. **To Study Sustainable** Financial & Income Support Agriculture scheme
2. **To Study National Mission for Sustainable Agriculture (NMSA)**
3. **To Study** Technology & Sustainable Farming

Research Methodology:

This research is based on secondary data government scheme of journal, articles, newspaper and magazines book, internet the objective of study descriptive type research design is adopted to have more accuracy and rigorous analysis of research study. Accessible secondary government scheme data is intensively used for researched study

Sustainable Financial & Income Support Scheme:

PM-KISAN (Pradhan Mantri Kisan Samman Nidhi) Offers all landholding farmer households an annual financial support of ₹6,000. Every four months, the sum is transferred directly into bank accounts via Direct Benefit Transfer (DBT) in three equal instalments of ₹2,000. **Pradhan Mantri Kisan Maan-Dhan Yojana**, or PM-KMY, is a voluntary pension plan for small and marginal farmers (ages 18 to 40) Beneficiaries receive a minimum pension of ₹3,000 per month after turning 60 year.

Insurance & Risk Mitigation:

PMFBY (Pradhan Mantri Fasal Bima Yojana): Provides complete crop insurance against diseases, pests, and unavoidable natural hazards. For Kharif, Rabi, and commercial/horticultural crops, farmers pay nominal premiums of 2%, 1.5%, and 5%, respectively.

PM-AASHA Through procurement programs like the Price Support Scheme (PSS) and Price Deficiency Payment Scheme (PDPS), PM-

AASHA (Pradhan Mantri Annadata Aay SanraksHan Abhiyan) guarantees that farmers obtain fair prices for their produce.

Credit & Infrastructure:

Kisan Credit Card (KCC) Scheme: gives prompt access to short-term loans for farm upkeep, post-harvest costs, and cultivation. For timely repairs, loans up to ₹3 lakh are offered at an effective annual interest rate of 4%. One of the primary advantages of the Kisan Credit Card is the government-provided interest subsidies. Farmers who return their loans on time might get loans with relatively low effective interest rates. The system also includes crop insurance and personal accident insurance for cardholders, which provides financial security to farmers and their families. KCC loans are typically issued by commercial banks, cooperative banks, and regional rural banks. The Kisan Credit Card, with its simplified procedures and flexible repayment options synchronized with crop cycles, has emerged as a significant tool in India for enhancing agricultural productivity, improving farmer liquidity, and strengthening rural livelihood.

Agriculture Infrastructure Fund (AIF): a medium-to long-term loan financing arrangement for infrastructure related to post-harvest management. For up to seven years, it provides a 3% annual interest subsidy on loans up to ₹2 crore.

National Mission for Sustainable Agriculture (NMSA): India's National Action Plan on Climate Change (NAPCC), which was introduced in 2010, has eight missions, including the National Mission for Sustainable Agriculture (NMSA). Its main goal is to advance sustainable and climate-resilient farming methods to guarantee food security, raise farmer incomes, and increase farm production. NMSA

concentrates on areas that are vulnerable to deteriorated soils, drought, and variable rainfall.

1. Using water-efficient techniques, integrated farming, and soil health management to increase
1. Productivity in a sustainable manner.
2. Encouraging climate-resilient technologies including precision farming, better cropping systems, and drought-tolerant seeds.
3. Water management and conservation, which includes micro-irrigation, rainwater collection, and effective use of the water resources at hand.
4. Improving soil health through organic farming, chemical input reduction, and balanced nutrient management. is one of the eight missions included in India's 2010 National Action Plan on Climate Change (NAPCC).

Main goal is to advance sustainable and climate-resilient farming methods to guarantee food security, raise farmer incomes, and increase farm production. NMSA concentrates on areas that are vulnerable to deteriorated soils, drought, and variable rainfall. Extension services and capacity building to teach farmers risk management techniques and sustainable practices. NMSA directly supports farmers through initiatives including Rainfed Area Development (RAD), Soil Health Management (SHM), and the National Initiative on Climate-Resilient Agriculture (NICRA). By lowering reliance on chemical inputs, preserving natural resources, and lessening the effects of climate change on agriculture, the objective promotes long-term sustainability. In general, NMSA aims to improve the resilience, productivity, and environmental sustainability of Indian agriculture for the benefit of farmers and the ecosystem.

The Soil Health Card Scheme: was developed by the Indian government in 2015 to improve soil nutrient management and sustainable agriculture. Every two years, farmers obtain a Soil Health Card, which includes information about their soil's nutrient level as well as suggestions for proper fertilizer and amendment dose. The card includes macro- and micronutrients such as nitrogen, phosphorus, potassium, zinc, and others. It improves agricultural productivity, lowers input costs, and prevents excessive use of chemical fertilizers. The Department of Agriculture and Farmers' Welfare implements the initiative, which is supported by soil testing facilities across the country.

Rashtriya Krishi Vikas Yojana (RKVY): supports sustainable agricultural practices in India by offering financial assistance to farmers who use contemporary, environmentally friendly techniques. RKVY encourages farmers to practice organic farming, integrated pest management, soil health improvement, and water conservation measures. The strategy promotes measures like as drip irrigation, rainwater gathering, and the use of bio-fertilizers to reduce chemical dependency and increase output. RKVY fosters climate-resilient agriculture, effective resource use, and economic growth for farmers by sponsoring innovative projects. It also promotes farmer training and technological adoption, ensuring agriculture's long-term sustainability while protecting the environment. In order to increase irrigation coverage and water use efficiency in agriculture, the Indian government introduced the Pradhan Mantri Krishi Sinchai Yojana (PMKSY) in 2015. "Har Khet Ko Pani" (water for every field) is its primary objective, guaranteeing farmers dependable irrigation. The program emphasizes water conservation, integrated irrigation, and micro-irrigation methods including sprinkler and drip systems. Particularly in regions that are

vulnerable to drought, PMKSY seeks to promote sustainable agriculture, boost crop output, and decrease waste. Additionally, it encourages rainwater collection and effective water management, which helps farmers increase their revenue and harvests while preserving natural resources.

Pradhan Mantri Krishi Sinchai Yojana

(PMKSY): In order to increase irrigation coverage and water use efficiency in agriculture, the Indian government introduced the Pradhan Mantri Krishi Sinchai Yojana (PMKSY) in 2015. "Har Khet Ko Pani" (water for every field) is its primary objective, guaranteeing farmers dependable irrigation. The program emphasizes water conservation, integrated irrigation, and micro-irrigation methods including sprinkler and drip systems. Particularly in regions that are vulnerable to drought, PMKSY seeks to promote sustainable agriculture, boost crop output, and decrease waste. Additionally, it encourages rainwater collection and effective water management, which helps farmers increase their revenue and harvests while preserving natural resources.

PM Kusum: Helps farmers install solar pumps and build grid-connected solar power plants (up to 2 MW) on unused land. The government offers subsidies of 30% to 50% for these installations. natural resources use sustainable agriculture increase farmer income

Technology & Sustainable Farming:

e-NAM (National Agriculture Market): A pan-Indian electronic trade site that connects mandis to form a single national market, facilitating online trading and transparent price discovery. **Soil Health Card (SHC) Program:** Provides farmers with reports every three years that describe the nutrient state of their soil and offer

suggestions for using fertilizer to preserve long-term fertility.

PKVY (Paramparagat Krishi Vikas Yojana):

The PKVY is an initiative introduced by the Government of India as part of the National Mission for Sustainable Agriculture. Its primary purpose is to encourage organic farming in India and assist farmers in implementing environmentally friendly, chemical-free agricultural practices.

Organic farming should be promoted by encouraging farmers to use traditional and natural farming practices rather than chemical fertilizers and pesticides.

Soil Health Improvement: Use organic inputs like as compost, bio-fertilizers, and vermicompost to increase soil fertility and productivity over time.

Sustainable Agriculture: Encourage environmentally responsible and economically successful farming practices.

Market Linkage: Facilitate certification and market assistance for organic produce to guarantee farmers get a higher revenue. This cluster-based program encourages organic farming by giving farmers ₹31,500 per acre in financial support to switch to organic methods.

Benefits for Farmers: Increased income due to higher prices for certified organic produce. Crops and soil are healthier, resulting in greater long-term productivity. Reduced reliance on chemical fertilizers and insecticides. Access to government assistance and marketing channels for organic produce.

In conclusion, PKVY is a step toward promoting sustainable and organic agriculture in India, increasing farmer income while also conserving the environment.

SMAM (Sub-Mission on Agricultural Mechanization): This program aims to make mechanization accessible to small and marginal

farmers by offering subsidies (up to 50–80%) for the purchase of farm equipment such as harvesters and tractors.

Conclusion:

India's government sustainable agricultural policies give both direct and indirect help for Indian farmer cultivation. Central initiatives such as the **Sustainable** Financial & Income Support scheme, PM-KISAN (Pradhan Mantri Kisan Samman, Pradhan Mantri Kisan Maan-Dhan Yojana, PMFBY Pradhan Mantri Fasal Bima Yojana, Kisan Credit Card, Agriculture Infrastructure Fund (AIF (KCC) Scheme, PM Kusum , **National Mission for Sustainable Agriculture (NMSA)**, Agriculture Infrastructure Fund (AIF), e-NAM PKVY Paramparagat Krishi Vikas Yojana, SMAM (Sub-Mission on Agricultural Mechanization) supports sustainable agricultural practices in India by offering financial assistance provide support for spices, focus on cultivation and farmer welfare. Training, subsidies, and value-chain innovations all help to increase production and income.

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