



PM NARENDRA MODI SCHEMES: AGRICULTURE SECTOR, SMALL FARMERS AND IRRIGATION DEVELOPMENT

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ABSTRACT

This paper examines the PM Narendra Modi Schemes of small holding agriculture sector in India. It covers trends in agricultural growth schemes participation of small holding agriculture scheme, Irrigation, productivity performance of small holders, linking small holders with markets including value chains, role of small holders in enhancing food security and employment generation scheme differential irrigation polices and institutional support scheme for small holders, challenges and future options for small holding agriculture sector scheme including information needs. It also provides lessons from the experience of India on small holding agriculture for other countries.

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INTRODUCTION

Agriculture plays a pivotal role in the Indian economy. Although its contribution to gross domestic product (GDP) is now around one sixth, it provides employment to 56 per cent of the Indian workforce. Also, the forward and backward linkage effects of agriculture growth increase the incomes in the non-agriculture sector. The growth of some commercial crops has significant potential for promoting exports of agricultural commodities and bringing about faster development of agro-based industries. Thus agriculture not only contributes to overall growth of the economy but also reduces poverty by providing employment and food security to the majority of the population in the country and thus it is the most inclusive growth sectors of the Indian economy. The 12th Five Year Plan Approach Paper also indicates that agricultural development is an important component of faster, more inclusive sustainable growth approach. The structural reforms and stabilization policies introduced in India in 1991 initially focused on industry, tax reforms, foreign trade and investment, banking and capital markets.

The economic reforms did not include any specific package specifically designed for agriculture. In the postreform (since 1991) period, India has done well in some indicators such as economic growth, exports, balance of payments, resilience to external shocks, service sector growth, significant accumulation of foreign exchange, Information technology (IT) and stock market, improvements in telecommunications etc. GDP growth was around 8 to 9% per annum in the period 2004-05 to 2007-08. India is now 2 trillion dollar economy. Investment and savings rates were quite high 32 to 36%. However, there have been exclusion problems in the country. In other words, real development in terms of growth shared by all sections of the population has not taken place. We have problems of poverty, unemployment, inequalities in access to health and education and poor performance of agriculture sector. One of the excluded sector during the reform period was agriculture which showed low growth and experienced more farmers' suicides. There are serious concerns on the performance of agriculture sector in the country. The post-reform growth was led by services. Commodity sector growth (agriculture + industry) has not been higher in the post reform period as compared to that of 1980s. Particular worry is agriculture sector which showed lower than 2% per annum in the decade of mid-1990s to mid-2000s. There are also

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concerns on food security and livelihoods. Small holdings agriculture which is the focus of this paper is important for raising agriculture growth, food security and livelihoods in India. It may be noted that Indian agriculture is the home of small and marginal farmers (80%). Therefore, the future of sustainable agriculture growth and food security in India depends on the performance of small and marginal farmers. Agricultural Census data shows that there were about 121 million agricultural holdings in India in 2000-01. Around 99 million were small and marginal farmers. Average size has declined from 2.3 ha. In 1970-71 to 1.37 ha. In 2000-01. Small and marginal farmers account for more than 80% of total farm hhs. But their share in operated area is around 44%. Thus, there are significant land inequalities in India. PM Modi enhancing so many schemes for agriculture and irrigation development.

Development Schemes of Agriculture Sector

Krishionnati Yojana: It is an umbrella scheme which includes the following

- **National Food Security Mission (NFSM):** to increase the production of rice, wheat and pulses. The mission is being continued during 12th plan with new target of additional production of 25 million tonnes of foodgrains comprising 10 million tonnes of rice, 8 million tonnes of wheat and 4 million tonnes of pulses and 3 million tonnes of coarse cereals.
- **National Food Security Mission-Commercial Crops:** for crop development programme on cotton, jute and sugarcane for enhancing productivity
- **Mission for Integrated Development of Horticulture (MIDH):** It covers wide horticulture base, which includes fruits, vegetables, tuber crops, mushrooms, spices and aromatic plants flowers and foliage and plantation crops like coconut, arecanut, cashew nut, cocoa and bamboo.
- **National Mission on Oilseeds and Oil Palm:** envisages increase in production of vegetable oils sourced from oilseeds, oil palm and tree borne oilseeds.
- **National Mission for Sustainable Agriculture:** aims at making agriculture more productive, sustainable and remunerative and climate resilient by promoting location specific integrated/composite farming systems; soil and moisture conservation measures; comprehensive soil health management; efficient water management practices and mainstreaming rainfed technologies.
- **National Mission on Agricultural Extension and Technology:** Its aim is to restructure and strengthen agricultural extension to enable delivery of appropriate technology and improved agronomic practices to the farmers consists.

Initiative for increasing flow of credit

- In order to ensure that all eligible farmers are provided with hassle free and timely credit for their agricultural operation, Kisan Credit Card (KCC) Scheme was introduced in 1998-99. The main objectives of the scheme are to meet the short term credit requirements for cultivation of crops, post harvest expenses, produce marketing loan, consumption requirements of farmer household, working capital for maintenance of farm

assets and activities allied to agriculture like dairy animals, inland fishery, etc., investment credit requirement for agriculture and allied activities like pump sets, sprayers, dairy animals, etc.

Pradhan Mantri Fasal Bima Yojana

- Under the new scheme, the farmers' premium has been kept at a maximum of 2 per cent for foodgrains and oilseeds, and up to 5 per cent for horticulture and cotton crops.
- There is no upper limit on Government subsidy. Even if balance premium is 90%, it will be borne by the Government. Earlier, there was a provision of capping the premium rate which resulted in low claims being paid to farmers. This capping was done to limit Government outgo on the premium subsidy. This capping has now been removed and farmers will get claim against full sum insured without any reduction.
- Importantly for the beneficiaries, crop losses which are covered under the scheme include Yield Losses as well as post-harvest losses, where coverage will be available up to a maximum period of 14 days from harvesting for those crops.
- The use of technology will be encouraged to a great extent resulting in operational efficiency. Smart phones will be used to capture and upload data of crop cutting to reduce the delays in claim payment to farmers. Remote sensing will be used to reduce the number of crop cutting experiments.

Mera Gaon, Mera Gaurav

- This scheme is being launched involving agricultural experts of agricultural universities and ICAR institutes for effective and deeper reach of scientific farming to the villages.
- A group of experts will be associated with one particular village to create awareness and adoption of new technologies including farm investment, loans, availability of inputs and marketing.
- All the scientists from ICAR and agricultural universities will participate in this initiative.

Krishi Dak

- IARI initiated this novel scheme in 20 districts in which postmen supplied seeds of improved varieties of crops to the farmers in far-flung areas.
- Owing to its success and popularity, this scheme is being extended in 100 districts of 14 states with the association of Krishi Vigyan Kendras.
- This will provide improved seed to farmers at their doorstep.

Soil Health Card

- Soil Health cards are necessary to ensure that only requisite nutrients are applied in the soil in a balanced manner to enhance productivity of specific crops in a sustainable manner.
- Values on soil parameters such as pH, EC, N, P, K, S, Zn, Fe, Mn, Cu & B.

- Recommendation on appropriate dosage of fertilizer application based on test values and requirement of crop, use of organic manures and soil amendments to acidic/alkaline/sodic soils.

Paramparagat Krishi Vikas Yojna (PKVY)

- Aim of the project is to maximize the utilization of natural resources through eco-friendly cultivation.
- Organic farming is a method of farming system which primarily aimed at cultivating the land and raising crops in such a way, as to keep the soil alive and in good health by use of organic wastes (crop, animal and farm wastes, aquatic wastes) and other biological materials along with beneficial microbes (bio-fertilizers) to release nutrients to crops for increased sustainable production in an eco friendly pollution free environment.

Promotion of National Market through Agri Tech Infrastructure Fund (ATIF)

- Central Sector Scheme for Promotion of National Agricultural Market through Agri-Tech Infrastructure Fund (ATIF) for Rs.200 crores to be implemented during 2014-15 to 2016-17.
- The Scheme envisages initiation of e-marketing platform at the national level and will support creation of infrastructure to enable e-marketing in 642 regulated markets across the country.
- For creation of a National Market, a common platform across all States is necessary. It is, therefore, proposed that a Service Provider be engaged centrally who would build, operate and maintain the e-platform on PPP (Build, Own, Operate, Transfer – BOOT) model. This platform would be customized/ configured to address the variations in different states.
- As an initiative of deregulation, States have been advised by the Government of India to bring fruits and vegetables out of the ambit of
- APMC Act. In pursuance of this advisory, 12 States have, so far, either de-regulated the marketing of fruits and vegetables or have exempted
- from levying of market fee.

MUDRA Bank

- The Finance Minister has proposed to create a Micro Units Development Refinance Agency (MUDRA) Bank, with a corpus of Rs. 20,000 crore, and credit guarantee corpus of 3,000 crore, which will refinance Micro-Finance Institutions through a Pradhan Mantri Mudra Yojana.
- Priority will be given to SC/ST enterprises in lending. MUDRA Bank will operate through regional level financing institutions who in turn will connect with last mile lenders such as MFIs, Small Banks, Primary Credit Cooperative Societies, Self Help Groups (SHGs), NBFC (other than MFI) and other lending institutions.
- MUDRA Bank will refinance Micro-Finance Institutions through a Pradhan Mantri Mudra Yojana (PMMY). In lending, priority will be given to SC/ST enterprises. These measures will greatly increase the

confidence of young, educated or skilled workers who would not be able to aspire to become first generation entrepreneurs; existing small businesses, too will be able to expand their activities. Since the MUDRA Bank will be set up through an enactment of law and it will take some time.

Krishi Kalyan Cess

- Union Budget for 2016-17 (April-March) introduced a new cess on services named Krishi Kalyan Cess at the rate of 0.5%. The effective rate of the Krishi Kalyan Cess, however, will be lower than 0.5% as the government will provide input tax credit for the cess, as against no input tax credit for Swachh Bharat Cess.
- Proceeds of cess would be exclusively used for financing initiatives relating to improvement of agriculture and welfare of farmers.

Direct Benefit Transfer (DBT) For Fertilizer Sector

- Government also announced to introduce Direct Benefit Transfer of fertilizer subsidy to farmers on pilot basis in few districts of the country.
- The government has fixed the Maximum Retail Price (MRP) of Urea at Rs. 5,360 per tones.
- The government had allocated Rs.72, 968.56 crore for fertiliser subsidy, out of which Rs. 38,200 crore was earmarked for domestic Urea.

Development of Agriculture and Irrigation:

Kisan Vikas Patra (KVP) Re-Introduced

- It is a saving certificate scheme which was first launched in 1998 by India Post. It was successful in the early months but afterwards the Government of India set up a committee under supervision of Shayamla Gopinath which gave its recommendation to the govt. that KVP could be misused. Hence the Govt. decided to close this scheme and closed in 2011. In 2014 new govt. relaunched this scheme. The amount invested will be doubled in 100 months.
- investors in the denomination of Rs. 1000, 5000, 10,000 and 50,000, with no upper
- KVP would be giving a return of 7.8 % annually.
- The maturity period is 2 years and 6 months.
- The certificate is issued in single or joint names.
- The re-launched Kisan Vikas Patra (KVP) will be available to the
- Ceiling on investment. The certificates can be issued in single or joint names and can be transferred from one person to any other person / persons, multiple times. The facility of transfer from one post office to another anywhere in India and of nomination will be available. The certificate can also be pledged as security to avail loans from the banks and in other case where security is required to be deposited. Initially the certificates will be sold through post offices, but the same will soon be made available to the investing public through designated branches of nationalised banks.
- Kisan Vikas Patras have unique liquidity feature, where an investor can, if he so desires, encash his certificates

after the lock-in period of 2 years and 6 months and thereafter in any block of six months on pre-determined maturity value. The investment

- Made in the certificate will double in 100 months.
- Reintroduction of Kisan Vikas Patra (KVP) is a welcome step not only in the
- direction of providing safe and secure investment avenues to the small investors but will
- also help in augmenting the savings rate in the country. The scheme will also safeguard
- small investors from fraudulent schemes. With a maturity period of 8 years 4 months, the collections under the scheme will be available with the Govt. for a fairly long period to be utilized in financing developmental plans of the Centre and State Governments and will also help in enhancing domestic household financial savings in the country.

HISTORY

Kisan Vikas Patra (KVP) – a certificate savings scheme was launched by the Government on 1st April, 1988. The scheme provided facility of unlimited investment by way of purchase of certificates from post offices in various denominations. The maturity period of the scheme when launched was 5 ½ years and the money invested doubled on maturity. The scheme was very popular among the investors and the percentage share of gross collections secured in KVP was in the range of 9 % to 29 % against the total collections received under all National Savings Schemes in the country. Gross collections under the scheme in the year 2010-11 were Rs. 21631.16 crores which was 9 % of the total gross collections during the year. In the year of its closure, the scheme secured gross collections of Rs. 7575.95 crores (April 2011 to November 2011).

Krishi Amdani Beema Yojana

- This scheme was launched when Rajnath Singh was agriculture minister in Atal Behari Vajpayee's cabinet.
- Objective of the scheme is to give impetus dying to agricultural practice.
- If farmers bear any financial burden due to unexpected weather then this scheme will help them.
- Now this scheme is covered by PM Fasal Beema Yojana.
- There is 14 crore hectares of agricultural land in India, of which only 44 per cent in under irrigation
- Pradhan Mantri Gram Sinchai Yojana would be introduced so that more agricultural land is irrigated.
- Talking about the plight of small and marginal farmers he said that most of them were leaving the agricultural practice because of the uncertainty over the produce and returns.
- Krishi Amdani Beema Yojana so that the farmers don't bear any financial burden if their produce gets destroyed due to unexpected weather or for any other reason.

Pradhan Mantri Gram Sinchai Yojana

The motive of this scheme will be to take irrigation water to each and every agricultural field in the country. The scheme has amalgamated three on-going programmes of three different ministries-(1) Accelerated irrigation benefit programme of the

ministry of water resources ,(2) Integrated watershed management programme of the ministry of rural development and(3) Farm water management component of the National Mission on Sustainable Agriculture.

- Converge investments in irrigation at the farm level and provide end-to-end solution.
- Har Khat Ko Pani, Enhance the physical access of water on the farm and expand cultivable area under assured irrigation.
- Promotion of micro irrigation in the form of drips, sprinklers, pivots, rain –guns in the farm.
- Per Drop more Crop.
- Fund would be given to state as 75 % grant by central govt. But, for north –eastern state region funding pattern would be 90:10.
- ensure water supply to farmers round the year.
- basic contours of the agri-irrigation programme would be on lines of the PMGSY, under which each irrigation project would be selected for releasing funds by the state government after seeking nod of the concerned Zilla Parishad.
- importance in the wake of poor implementation of various irrigation projects in some states despite release of central funds by different ministries under various schemes for several years.
- Besides, water is necessary for farmers as country's 50 per cent of the agriculture land is rainfed.

Pradhan Mantri Sansad Adarsh Gram Yojana

- The Saansad Adarsh Gram Yojana was launched last week, for the development of model villages. Under the Yojana, Members of Parliament (MPs) will be responsible for developing the socio-economic and physical infrastructure of three villages each by 2019, and a total of eight villages each by 2024.
- The first Adarsh Gram must be developed by 2016, and two more by 2019. From 2019 to 2024, five more Adarsh Grams must be developed by each MP, one each year. This implies that a total of 6,433 Adarsh Grams, of the 2,65,000 gram panchayats, will be created by 2024. Key features of the Yojana are outlined below
- It is a rural development programme broadly focusing upon the development in the village which includes social development, cultural development and spread motivation among the people on social mobilization of the village community. The scheme was launched by PM Narendra Modi on the birth anniversary of Jayaprakash Narayan, on 11 October 2014.
- The development of model village, called ADARSH GRAMS, through the implementation of existing schemes and certain new initiative to be designed for the local context, which may vary from village to village.
- Creating models of locals development which can be replicated in other village.
- Under this scheme each MP needs to choose one village from the constituency that they represent, expect their own village or their wife/husband village and fix parameters and make it model village by 2016.

- Under the scheme, PM Modi has adopted Nagepur village his constituency Varanasi in UP.
- No new funds are allocated to this Yojana and funds may be raised through-Indra Awas Yojana ,PM Gram Sadak Yojana ,MNREGA, MP Local Area Development scheme, Corporate Social Responsibility funds etc.

Soil Health Card Scheme for Every Farmer

Farming as an activity contributes nearly 1/6th of our Gross Domestic Product and a majority of our population is dependent on it for their livelihood. Deteriorating soil health has been a cause of concern and that has been leading to sub optimal utilization of farming resources. Imbalanced use of fertilisers, low addition of organic matter and non-replacement of depleted micro and secondary nutrients over the years, has resulted in nutrient deficiencies and decrease in soil fertility in some parts of the country.

The scheme is launched by PM Narendra Modi on 17th Feb 2015 at Suratgarh, Rajasthan. Under the scheme govt. plans to issue soil cards to farmers which carry cropwise recommendations of nutrients and fertilisers required for the individual farms to help farmers to improve productivity through judicious use of inputs. All soil samples are to be tested in various soil testing labs across the country.

- The scheme aims balanced uses of fertilisers to enable farmers realize higher yields at low cost.
- An amount of Rs. 568 crores was allocated by the govt. for the scheme.
- The target for 2015-16 is to collect 100 lakh soil samples and test these for issue of soil health card.
 - It was launched by on 25 September 2014 by Union Ministers Nitin Gadkari and Venkaiah Naidu on the occasion of 98th birth anniversary of Pandit Deendayal Upadhyaya.
 - It aims to target youth, under the age of 15-35 years.
 - A corpus of Rs. 1,500 crore and is aimed at enhancing the employability of rural youth. Under this programme, disbursements would be made through a digital voucher directly into the student's bank account as part of the government's skill development initiative.
- Soil health needs to be assessed at regular intervals so as to ensure that farmers apply the required nutrients while taking advantages of the nutrients already present in the soil.
- Government has launched a scheme to provide every farmer a Soil Health Card in a Mission mode. The card will carry crop wise recommendations of nutrients/fertilizers required for farms, making it possible for farmers to improve productivity by using appropriate inputs.
- Central Government provides assistance to State Governments for setting up Soil Testing Laboratories for issuing Soil Health Cards to farmers. State Governments have adopted innovative practices like involvement of agricultural students, NGOs and private sector in soil testing, determining average soil health of villages, etc., to issue Soil Health Cards.

- A Soil Health Card is used to assess the current status of soil health and, when used over time, to determine changes in soil health that are affected by land management. A Soil Health Card displays soil health indicators and associated descriptive terms. The indicators are typically based on farmers' practical experience and knowledge of local natural resources. The card lists soil health indicators that can be assessed without the aid of technical or laboratory equipment

Conclusion

The scheme will provide all 145 million farm owners in the country with a soil health card in the next three years. The budget allotted Rs.100 crore for issuing cards and an additional Rs.56 crore to set up 100 mobile soil testing laboratories across the country. The soil health card details existing nutrient status of the soil and crop-wise recommendations of nutrients and fertilizers required, making it easier for farmers to improve productivity by using appropriate inputs. "Applying fertilizer, best quality seeds and ample water is not enough. Farmers should nurture their soil and know what inputs to use and in what quantities," Modi said while launching the scheme. "Starting soil health laboratories could be an employment avenue for rural youth. In Gujarat where every farmer has a soil health card unnecessary expenses on inputs have come down and farmers have saved a lot of money." The agriculture ministry released Rs.86 crore for the soil health card scheme. In comparison, between 2007-08 and April 2014, the ministry had spent Rs.112 crore on the scheme. The flagship scheme of the ministry has been sanctioned Rs.568 crore for the next three years. Imbalanced use of fertilizer is has led to declining crop productivity in the country, further fuelled by a skewed fertilizer policy where urea is heavily subsidized, leading to overuse. While urea consumption increased from 59% to 66% of total consumption in 2012-13 over 2010-11, per hectare consumption of fertilizer declined from 140kg to 128kg over the same period, noted the Economic Survey of 2014. Current trends in farm output reveal that the marginal productivity of soil in relation to the application of fertilizers is declining, it reported.

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