

CHAPTER - 1

Introduction

1.1 Background of NFSM

The growth in food grain production has been stagnant during recent past while consumption need of the growing population is increasing. To meet the food grain demand, the National Development Council, in its 53rd meeting held on 29th May, 2007, adopted a resolution to launch the National Food Security Mission in order to increase the Production of rice by 10 million tons, wheat by 8 million tons and pulses by 2 million tons by the end of the XI Five Year Plan (2011-12). Accordingly, a Centrally Sponsored Scheme, 'National Food Security Mission' (NFSM), has been launched from 2007-08 to operationalise the above mentioned resolution.

The scheme is being implemented in a mission mode through a farmer centric approach. All the stakeholders of the mission are to be actively associated at the district level for achieving the set goals. The scheme is set to target the select districts by making available the improved technologies to the farmers through a series of planned interventions. A close monitoring mechanism proposed to ensure that interventions reach the targeted beneficiaries.

1.1.1 NFSM objectives

- (i) Increasing production of wheat, rice and pulses in a sustainable manner in identified districts.
- (ii) Restoring soil fertility
- (iii) Creating employment opportunities
- (iv) Enhancing farm level economy (farm profitability) to restore confidence of farmers in targeted districts.

The Mission interventions include demonstration of improved packages of practices, distribution of certified seed for increase in Seed Replacement Rate (SRR), integrated nutrient management, integrated pest management, farm mechanization, soil amelioration, farmers field school based training, etc.

These activities will be implemented under the District Food Security Mission Executive Committee (DFSMEC) of which District Collector is Chairman and Dy. Director of Agriculture (Extension) is Member Secretary. Funds for implementation of NFSM are provided to Agriculture Technology Management Agencies (ATMAs) that have been constituted in all Districts.



1.1.2 Strategy

- Expansion of area of pulses and wheat, no expansion of area in Rice.
- Bridging the yield gap between the potential and the present level of productivity through:
 - Acceleration of seed production.
 - INM and IPM.
 - Promotion of new production technologies like hybrid rice, timely planting of wheat and promotion of new improved variety of pulses.
 - Supply of input ensuring their timely availability.
 - Promotion of new improved farm implements.
 - Introduction of pilot project like community generator and blue bull control.

1.1.3 NFSM Components

The National Food Security Mission has following three components:-

- (i) National Food Security Mission – Rice (NFSM-Rice)
- (ii) National Food Security Mission – Wheat (NFSM-Wheat) and
- (iii) National Food Security Mission – Pulses (NFSM-Pulses)

(i) NFSM- Rice

NFSM-Rice component is implemented in 14 states and 136 districts. The total area covered under rice component is 20 million hectares.

Since this component is not applicable in Rajasthan; it has been not discussed in the report in detail.

(ii) NFSM-Wheat

NFSM wheat is implemented in 141 districts in 9 states covering 13 million hectares area under wheat crop.

Different interventions planned under wheat component are as follows:-

- 2.6 lakh demonstrations of improved package of practices
- Distribution of 42.9 lakh qtls of HYV seeds to achieve 33% SRR in 13 million ha
- Treatment of 5 million ha of soil deficient in micronutrients
- Treatment of 2 million hectares of salt affected areas with gypsum
- Distribution of 75,666 zero till seed drills



- Distribution of rotavators , multi-crop planters, seed drills, sprinkler sets, Knap-sack sprayers & diesel pump sets
- Incentives for distribution of 70,000 diesel pump sets
- Pilot project on community generators for irrigation in shallow water table areas and
- Dissemination of production technology through 13,000 Farmers Field School.

Assistance provided to the farmers under various interventions of NFSM- Wheat is as follows:-

- Demonstrations of improved package of practices @ ` 2,000/- per demonstration
- Distribution of seed minikits of open Pollinated Varieties free of cost
- Assistance for purchase of High Yielding Variety seeds @ ` 5/- per kg or 50% of the cost whichever is less
- The package assistance for micronutrients and gypsum together will be 50% of the cost limited to ` 1,000/- per ha. However, the assistance for gypsum should not exceed 50% of the cost of material plus transportation cost limited to ` 750/- per ha whichever is less
- Assistance for purchase of Zero till seed drills, multi-crop planters , seed drills @ ` 15,000/- per farmer or 50% of the cost whichever is less
- Assistance for purchase of rotavators @ ` 30,000/- per farmer or 50% of the cost whichever is less
- Assistance for purchase of knapsack sprayers @ ` 3,000/- per farmer or 50% of the cost whichever is less
- Assistance for purchase of diesel pump sets @ ` 10,000/- per farmer or 50% of the cost whichever is less
- Assistance for purchase of sprinkler sets @ ` 7,500/- per farmer or 50% of the cost whichever is less
- Training for farmers through Farmers' Field Schools @ ` 17,000/- per training (full cost) and
- Pilot project on community generators for irrigation in shallow water table areas with an outlay of ` 5.0 crore (full cost)



(iii) NFSM-Pulses

NFSM-pulses will be implemented in existing as well as in additional 171 identified districts in 14 states. The pulse component of Centrally Sponsored Scheme on “Integrated Scheme of Oilseeds, Pulses, Oil palm and Maize (ISOPOM)” will cease to operate in 171 identified districts except for the components which are not covered under NFSM-pulses. In terms of area, 17 million hectares in the selected districts would be covered for achieving productivity gains. About 4 million hectares of additional pulses area would be created through promotion of Intercropping and through development of rice fallows.

Different interventions planned under Pulses components:-

- Distribution of certified HYV seeds to achieve 33% SRR in 17 million ha
- Soil amelioration with gypsum/lime/ micronutrients, Integrated Nutrient Management
- Integrated Pest Management for control of diseases and pests
- Encouragement to mechanization of agriculture practices through Distribution of zero till seed drills, rotavator , multi-crop planters, seed drills, sprinkler sets, knap-sack sprayers & diesel pump sets
- Pilot project on tackling the menace of blue bull which normally damages the pulses crop
- Dissemination of production technology through Farmers Field Schools and
- Support for strengthening of state seed certification agency (ies)

Assistance provided to the farmers/identified seed producing/seed certification agencies under various components of NFSM Pulses:

- Assistance for production of foundation and certified seeds of pulses@ ` 1,000/- per quintal
- Distribution of certified HYV seeds @ ` 12/- per kg or 50% Of the cost whichever is less
- An assistance of ` 1,250/- per ha for promotion of micro-nutrients /lime/ gypsum will be provided as an INM package to the farmers. The assistance for lime/gypsum will be @ 50% of the cost of material plus transportation cost limited to ` 750/- per ha



whichever is less. However, the assistance for micro-nutrients will be @ 50% of the cost or ` 500/-per ha whichever is less

- Integrated Pest Management for control of diseases and pests @ ` 750/- per hectare or 50% of the cost whichever is less
- Assistance for purchase of zero till seed drills, multi-crop planters, seed drills @ ` 15,000/- per farmer or 50% of the cost whichever is less
- Assistance for purchase of Rotavators @ ` 30,000/- per farmer or 50% of the cost whichever is less
- Assistance for purchase of knapsack sprayers @ ` 3,000/- per farmer or 50% of the cost whichever is less
- Assistance for purchase of diesel pump sets @ ` 10,000/- per farmer or 50% of the cost whichever is less
- Assistance for purchase of sprinkler sets @ ` 7,500/- per farmer or 50% of the cost whichever is less
- Training for farmers through Farmers' Field Schools @ ` 17,000/- per training (full cost) and
- ` 25 lakh per year for support for strengthening of state seed certification agency (ies)

1.1.4 Assistance provided under NFSM

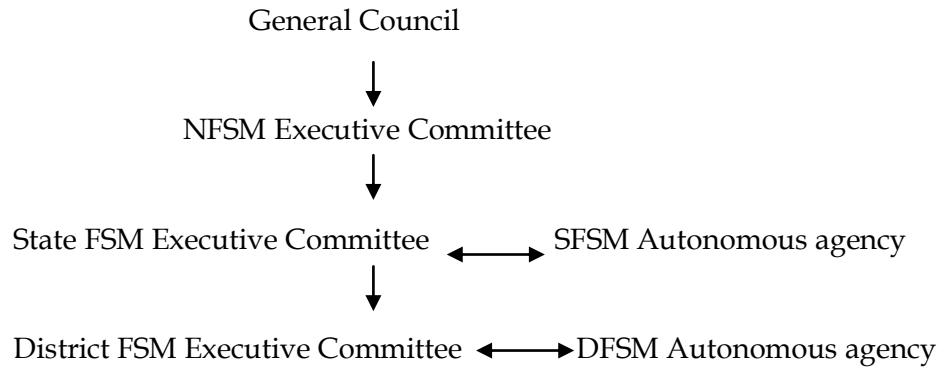
All the farmers are eligible to avail assistance under NFSM. However, at least 33% of the allocation of funds is made for small, marginal & women farmers. Besides, 16% of the total allocation to SC and 8% for ST farmers has been provided under the mission. Each beneficiary is entitled to avail assistance under the scheme limited to 5 ha.

Mission offers assistance to the farmers for purchase of High yielding variety (Open Pollinated Varieties)/hybrid seeds, soil amendments such as gypsum, lime and micronutrients. In addition to this, a provision of large range of improved farm machinery and assistance for taking up Integrated Pest Management measures also exists under the mission. The mission also recognizes the importance of training to farmers and offers knowledge dissemination regarding improved agriculture production and resource conservation technologies through Farmers Field Schools, seed minikits and demonstrations. Mission provides for a focused approach. Those districts have been selected under the mission, which have large area under food crops and



despite having yield potential have registered low yield than the average yield of the state. Other distinctive features of the selected districts include poor rural infrastructure, poor human resource development, and inadequate power availability, lower off take of Institutional credit, less developed markets and poverty.

Structure of Mission



1.1.5 District level action plan

- The annual action plan to be prepared by DFSMEC headed by collector
- A baseline survey to be conducted by District agency to record current levels of production
- Annual action plan for the district to be based on potential and available technology
- State level action plan to be prepared based on district level action plan
- DFSMEC to identify new initiative other than approved interventions as per needs and requirement of agro-climatic condition
- PRI members to be associated for selection of beneficiaries

1.2 Period of launch

The National Food Security Mission had been launched during *Rabi* 2008 with an objective to increase production and productivity of wheat, rice and pulses on a sustainable basis so as to ensure food security of the country. The approach is to bridge the yield gap in respect of these crops through dissemination of improved technologies and farm management practices.

Total period of this mission is five years from 2007-08 to 2011-12.



1.3 Linkages and their association

1.3.1 Linkages

NFSM at field level is although implemented directly through Department of Agriculture (DoA) but it has linkages with other government departments, non-government organizations, cooperative organizations and private concerns to fulfill requirement of technical as well as physical inputs.

Major linkages and associations are as follows:

For technical inputs: State Agriculture Universities, their field extension and research centers like ARS and KVKs which are linked with ICAR play a major role in providing technical inputs especially in FFS. They used to deliver lectures in FFS organized by DoA field officials.

For Physical inputs: Cooperatives like NSC, RSSC, Tilam sangh, RAJFED, Private Certified Seed producers for supply of certified seed; RSMML, KVSS, GSS, Private Suppliers for micronutrients and Gypsum; KVK, ATC and private suppliers for Bio-pesticides; Private manufacturers for farm equipments and machinery.

1.3.2 Association

Association of DoA for NFSM is with NSC, RSSC, RAJFED etc. is at both state and district level while for other components like Gypsum, Micro-nutrients, farm equipments and machineries, bio-pesticides is mostly at district level.

1.3.3 Monitoring and Evaluation of NFSM

- The National Food Security Mission has a strong mechanism of monitoring and evaluation with the involvement of all the implementing agencies and the line departments. At the district level, monitoring will be undertaken by District Food Security Mission Executive Committee supported by the Project Management Team.
- Close monitoring of need based planning independent of proposed outlays, interventions/season specific physical and financial achievement vis-à-vis targets, adherence to norms of identification of beneficiaries & flow of funds as envisaged under the mission, pest situation and status of area infested vis-a-vis area treated, status of collaboration between stakeholders, Institutional building, share of input specific support under mission in total sale of inputs, prima-facie impact of capacity building interventions, status of convergence of the interventions, changes in the cropping systems in NFSM districts, quality of seed production, ICRISAT technologies, outcome



of the support extended to state seed certification agencies and quality of inputs by the monitoring teams.

- The State Department of Economics and Statistics has been involved in adopting the prescribed formats for data collection pertaining to different parameters of the mission for monitoring to suit the local requirements.
- At the State level, the activities of the Mission are being monitored by a Committee constituted under the Chairmanship of the State Mission Director with members drawn from the line departments, State Agricultural Universities, lead banks, institutes of Indian Council of Agricultural Research and the Crop Development Directorates.
- At the National level, the activities of the Mission are being monitored by a Committee constituted under the Chairmanship of the Mission Director with members from Department of Agriculture & Cooperation, Indian Council of Agricultural Research, State Agricultural Universities, Crop Development Directorates of rice, wheat and pulses Development and concerned State Department officials.
- Crop Development Directorates of rice/wheat/ pulses are the conveners of the Committees for the identified states i.e., the Directorate of Wheat Development for the northern States, the Directorate of Rice Development for the eastern States and the Directorate of Pulses Development for the Central and the southern States.

1.4 Expanse of the program

National Food Security Mission is being implemented through Ministry of Agriculture with an outlay of about ` 5,000 crore for enhancing the food grains production by 2011-12. The mission was launched in the year 2007-08 as a Centrally Sponsored Scheme.

1.4.1 National

States covered under NFSM

- Rice: Andhra Pradesh, Assam, Bihar, Chhattisgarh, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Orissa, Tamilnadu, Uttar Pradesh and West Bengal.

Total states: 12

Total identified districts: 133

Target: Additional production of 10 MT

- Wheat: Bihar, Gujarat, Haryana, Madhya Pradesh, Maharashtra, Orissa, Punjab, **Rajasthan**, Tamilnadu, Uttar Pradesh and West Bengal.

Total states: 9



Total identified districts: 138

Target: Additional production of 6 MT

- Pulses: Andhra Pradesh, Bihar, Chhattisgarh, Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Orissa, Punjab, **Rajasthan**, Tamilnadu, Uttar Pradesh and West Bengal.

Total states: 14

Total identified districts: 168

Target: Additional production of 4 MT

- Total states under NFSM: 16
- Total identified districts under NFSM: 305
- Target: Additional production of 20 MT

1.4.2 Rajasthan

- NFSM (Rice) - Nil
- NFSM (Wheat): 15 districts *viz* Ajmer, Banswara, **Bhilwara**, Bikaner, Jaipur, Jalore, Kota, Jhalawar, **Nagaur**, Pali, S. Madhopur, **Sikar**, Sirohi, Tonk and Udaipur.
- NFSM (Pulses):- 16 districts *viz*: Ajmer, Bikaner, Barmer, Chittorgarh, **Churu**, Dausa, **Sri Ganganagar**, Hanumangarh, Jaipur, Jhunjhunu, Jalore (up to 2008-09), **Kota**, Nagaur, Sikar, Tonk and Pratapgarh (from 2009-10).

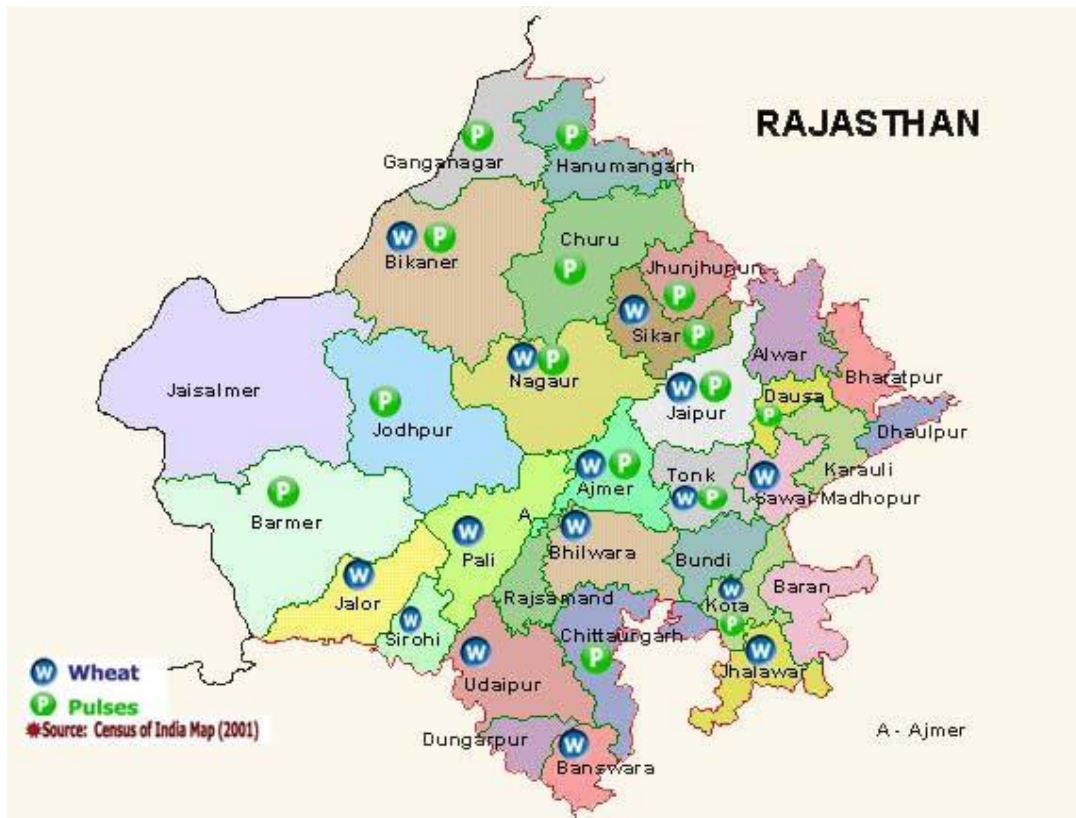


Figure 1: Map showing NFSM districts

1.5 Objective of Concurrent Evaluation

- (i) Concurrent evaluation needed to examine the planning and implementation process and monitoring mechanism in the context of approved plan of action of any activity/ mission.
- (ii) To identify strengths and weakness of the mission activities and factors responsible for these strengths and weaknesses
- (iii) Concurrent evaluation was carried out to suggest corrective and remedial measures.

1.6 Coverage of Study

Six districts of the state were selected for concurrent evaluation purpose out of which three districts *viz.* Nagaur, Bhilwara and Sikar were selected to study on wheat crop while other three district *viz.* Sri Ganganagar, Churu and Kota were selected for study on Pulses crops.

CHAPTER - 2

Concurrent Evaluation -Methodology

2.1 Methodology

The present concurrent evaluation study covers the individuals directly benefited from any one or more component of NFSM. Amongst the individual beneficiaries available in the study area, 360 were interviewed for impact assessment through semi-structured interviews/and issue focused group discussion (I-FGD). For this purpose a detailed household survey of 360 beneficiary families was conducted in addition to 180 non-beneficiary families as control. The study also includes I-FGD with secondary stakeholders like PRI members and district and state level officials of Department of Agriculture.

2.2 Sampling frame work

360 respondents were selected on random basis keeping in view the different parameters such as number of beneficiaries in each component in respective blocks/ Panchayat, land holding, caste, poverty line, initiative, etc. The respondents were selected on the basis of availability across villages in randomly selected blocks of each select district which made better representation of target area on key parameters.

2.2.1 Selection of District

The districts have been selected as per guideline for concurrent evaluation provided by NFSM. Accordingly, Nagaur, Bhilwara and Sikar have taken up for study related to Wheat; while Sri Ganganagar, Churu and Kota were selected for study related to Pulses.

2.2.2 Selection of Sample

A total of 90 individual respondents have been covered under the study in each district. Out of this, 60 are sample beneficiaries and 30 are control samples, who have not been assisted under NFSM (but may be benefitted from other schemes).

The selection of sample has been made on the basis of availability of individual respondent beneficiaries out of list provided by the district offices of the department of Agriculture.

Non-beneficiaries were selected from same visited villages, where beneficiaries were available for response to keep comparative similar socio-economic situations.

List of villages covered under this study is as follows:

Table 1: District wise detail of sample covered under study

Sr. No.	Crop	District	No. of blocks	No. of Villages	No. of Beneficiary respondents	No of control Respondents
1	Wheat	Nagaur	2	4	60	30
2	Wheat	Bhilwara	2	16	60	30
3	Wheat	Sikar	2	08	60	30
4	Pulses	Sri Ganganagar	2	21	60	30
5	Pulses	Churu	2	12	60	30
6	Pulses	Kota	2	16	60	30
	Total		12	77	360	180

District Demography:

Table 2: Demography of study districts

Sr. No.	District	Total Population*	Number of Cultivators*	Gross cropped area(ha)	Net irrigated area(ha)
1	Bhilwara	2013789	532597	455368	115895
2	Churu	1923878	853899	1458770	67103
3	Sri Ganganagar	1789423	271234	1053498	647951
4	Kota	1568525	144043	269089	235187
5	Nagaur	2775058	697175	1438006	249671
6	Sikar	2287788	534423	751820	233554

* Census 2001, # 2009-10

2.3 Limitations of the study

Unawareness among beneficiaries about name of scheme, lack of authentic data with respondents, and the crop productivity of the beneficiaries post assistance was gathered as indicative measurements. List of beneficiaries was not updated at both district and state level which causes sampling from limited number of beneficiaries. Out of total respondents, component wise respondents were very limited in each component.

CHAPTER - 3

Planning Process

3.1 Organization structure – State & District Level

3.1.1 Positioning of staff: NFSM is a part of agriculture sector only, hence, implemented by Department of Agriculture primarily. No extra staff except consultants and technical assistants made available for implementing activities exclusively related to NFSM and DoA which is already lacking of adequate number of staff members, is managing this mission also.

3.1.2 SFSM Executive committee is headed by Chief Secretary, DoA, GoR while each DFSM executive committee is headed by respective district collectors. Joint Director, Water Utilization Cell, DoA, GoR is in-charge for NFSM, supported by NFSM consultant and staff of WUC team.

Organizational structure of DoA, GoR is given as annexure which is responsible for NFSM also in same order. Deputy Directors, DoA of respective districts are over all in-charge for implementation of the mission and its interventions.

3.1.3 Observations on the duties assigned: Deputy Directors of respective districts assigns duties to their existing district level staff along with NFSM consultants who prepares the annual action plan as a team and accordingly execute the same with the help of departmental staff as well as outsourced from other government or non-government organizations. Mostly Technical assistants/Agriculture Officers/Assistant Agriculture Officers are assigned job of execution of the planned activities with Agriculture Supervisors and organize field visits also. Based on field data, demand and feedback, district level officers and consultants prepared reports to be sent at state level.

3.1.4 Staff adequacy relevant to targets, suitability and experience: As mentioned above, staff in DoA is not adequate in terms of number of staff working vis-à-vis approved positions. Even in this situation, they are indulged in NFSM activities other than routine work of DoA. At lower hierarchy viz. Agriculture Supervisors, staffs were not adequately trained in terms of technical knowledge but some of them are well experienced in terms of practical field knowledge and well interacted with community. It shows that AS are good for organizing activities related to NFSM but may not adequate for providing technical inputs.

3.2 Status

3.2.1 Timeliness of constitution of various committees and their performance in terms of number of meetings held

Two types of committees were active, one at both state and district level viz. State Food Security Mission – Executive Committee and District Food Security Mission – Executive Committee, respectively. Both SFSM and DFSM EC have planned one formal meeting every year and they completed that well in all previous three years. Other than these formal meetings, they used to meet at other occasions also at both state and district level.

Table 3: Status of district level Executive Committee meetings

Sr. No.	District	2007-08	2008-09	2009-10	2010-11
1	Nagaur	NA	NA	NA	NA
2	Bhilwara	NA	NA	NA	NA
3	Sikar	2	3	2	2
4	Sri Ganganagar	NA	NA	NA	NA
5	Churu	NA	NA	NA	NA
6	Kota	NA	NA	NA	NA

3.2.2 Frequency of such meetings

The frequency of meetings was once in a year for SFSMEC and twice a year for DFSMEC.

3.2.3 Major decisions taken regarding implementation of NFSM

No specific major decisions taken in these meetings. Major points discussed are related to annual action plan and proper utilization of funds, to ensure timely availability of good quality inputs, to ensure timely achievement of physical and financial targets, etc.

3.2.4 Maintenance of records pertaining to minutes of the meeting & actions taken reports

Maintenance of records was not found proper at both state and district level pertaining to number of beneficiaries and support given to respective beneficiaries in different activities. Although pertaining to overall action taken reports for physical and financial targets was found in adequate condition.

3.2.5 Details of stakeholders and their role

Primary stakeholders are farming community for whom this mission has been launched. Active role of farmers was anticipated at field level but it has not forthcoming due to various reasons like lack of awareness, lack of education, procedural delays in incentivized supply of inputs, political pressure in selection of beneficiaries, etc.

Major secondary stakeholder is department of agriculture which is the implementing agency of the mission. DoA has given responsibility of NFSM but extra team members were not provided for this purpose, hence, current staff is working in it with routine responsibilities of the department. Minor secondary stakeholders are agencies supplying technical and physical inputs. SAUs, KVKs, ARSs, NGOs, etc. provide technical backup to NFSM by sending their scientists/ technical experts in cooperation with DoA and give technical inputs in FFS, Field days, etc. Government agencies like NSC, RSSC, RAJFED; cooperative agencies like GSS, KVSS, Cooperative societies and private agencies duly certified by state/ district DoA provides agri-inputs.

3.2.6 Process of delivery of agricultural inputs in terms of timeliness and adequacy

For getting delivery of inputs from different agencies, process guideline of DoA followed at each level which is quite adequate. Problem always occurs in timeliness of delivery by external agencies, whether it belongs to government or not. Even in it, major delays are procedural which happen at each level and are not easy to avoid.

CHAPTER - 4

Implementation Process

4.1 Selection of beneficiaries

4.1.1 Selection of beneficiary is done by a committee constituting Gram Panchayat Sarpanch, at least one SC, one ST and one female member and Agriculture Supervisor designated for respective gram Panchayat. Selection process is followed for those components only which are limited in number like mini kits and demonstrations. At each Gram Panchayat level, Committee informally follows guidelines and selects beneficiary on basis of category (APL/BPL), caste (SC/ST/OBC/GN) and gender (Male/Female). While selecting the beneficiary DoA officials also look for innovativeness, resourcefulness, education and management skill of farmers specially while selecting for demonstration. For components which are not in limited category like, seed distribution, farm implements, FSS, PP Chemicals, Micronutrients, Gypsum, Lime, etc. there is no formal selection process followed.

4.1.2 Constraints

In process of selecting beneficiaries for components which are limited, AS face some sort of political pressure from local bodies and peer group.

4.1.3 Observations on records maintained as regards to their completeness & validation

At both state and district level, in the name of record maintenance, only one format of MPR was available currently which had to be filled by district offices and compiled by state office to send to central office of NFSM. Almost all district offices used to send the MPR between 10-15th of every successive month to state and state office used to send the compiled MPR of all districts to central office within 15th to 20th of every month. Format of MPR used at both district and state level offices is attached herewith as annexure. Month wise and component wise Physical and financial target and achievements were available at both district level and state level and in well updated form but in case of number and/or list of beneficiaries, information was not forthcoming. At state level, no records were found related to number of beneficiaries (even total numbers). State level office informed that there was problem in getting data from district offices. At district level, information related to beneficiaries was available in respective beneficiary file only and yet to be digitized.

4.2 Highlights of component (crop)/ intervention wise physical & financial progress

4.2.1 Farmers field School

- **Coverage**

Total of 149 FFS based trainings were organized during the reference year across NFSM districts for wheat in the state with total expenses of ` 16.39 lacs.

- **Agencies involved in the activity along with the institutions for sourcing of experts**

Agencies involved were State Agriculture Universities, *Krishi Vigyan Kendra*, Agriculture Research Stations, etc. DoA worked in coordination and cooperation with these agencies and their scientists and technical experts provided inputs to FFS.

- **Season & component wise FFS conducted and number of farmers benefited**

Physical and financial progress of FFS conducted for crop of wheat during FY 2010-11 is indicated in Chart- 1. In Bhilwara and Nagaur districts; physical achievements are almost at par with set targets but in Sikar district it was three fourth only. Even at state level, achievement is 12 percent below then set targets. Unlike financial achievements are far below then set targets which show either lack of planning or cost efficiency of the implementing manpower.

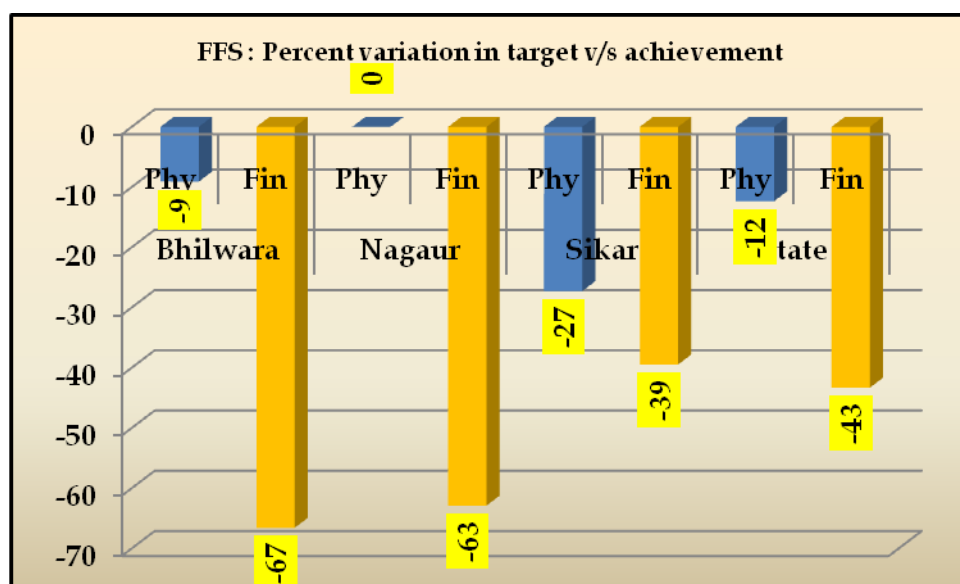


Chart 1: Physical and financial progress of FFS conducted during FY 2010-11

*Source: reports received from state NFSM office, Jaipur

Details about FFS conducted under various activities of NFSM like Demonstration, IPM, INM, etc. are given below in table 4.

Table 4: FFS conducted under various activities of NFSM

Sr. No.	Crop	District	No. of FFS conducted*	No. of farmers attended FFS*	No. of respondents attended FFS
1	Wheat	Nagaur	10	23	1
2	Wheat	Bhilwara	13	900	19
3	Wheat	Sikar	8	NA	25

*Source of data: report of Dy. Dir. Agriculture of respective districts

4.2.2 Demonstrations

Chart-2 shows variation between target and achievement with respect to demonstrations planned for wheat crop in study districts as well as for the state. It illustrates a very common line of variation in both physical and financial achievements in all study districts as well as state. Physical achievement is almost at par with set target but financial achievements are showing well below the targets.

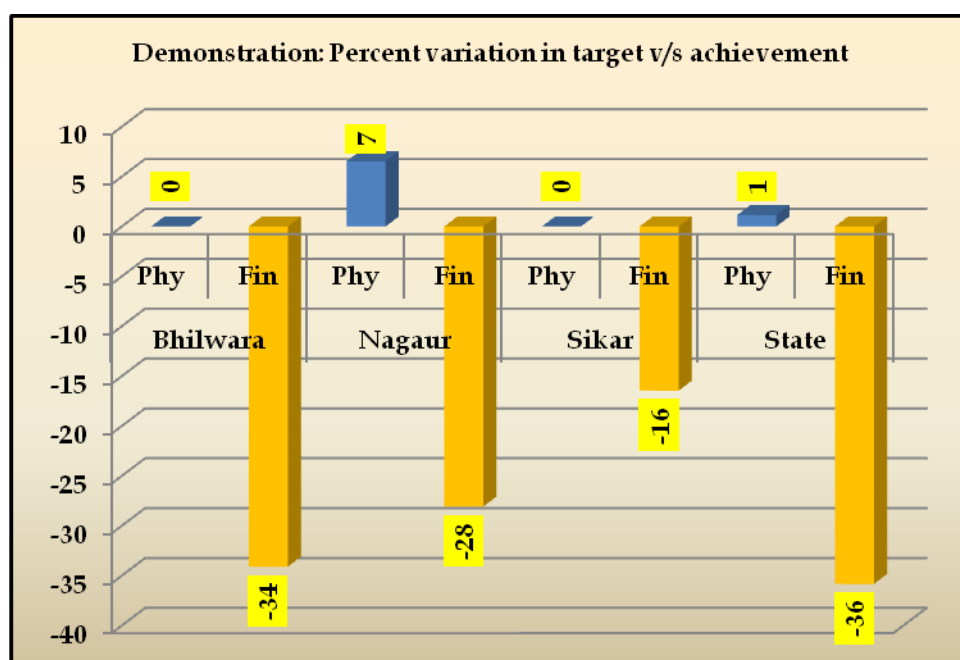


Chart 2: Demonstration - percent variation in target v/s achievement

- **Coverage as stipulated and its adequacy**

Against planned 3370 demonstrations in all 15 NFSM districts, DoA achieved 3580, which was 101% of the target.

- **Success rate of demonstrations conducted**

Data was not available but according to DoA officials, almost all demonstrations were successful.

- **Performance of demonstrations in terms of average yield obtained and its comparison with the state/district yield averages**

Chart given below shows comparative analysis of both demonstration yields obtained on the basis of respondents and district & state average yield. **In all study districts yield was quite higher than respective district average yield and state average yield for the FY 2009-10.** Most effective results were found in district Bhilwara where demo plots got yield of 42 q/ha in comparison with district average of 25.7q/ha and state average of 31.33 q/ha respectively.

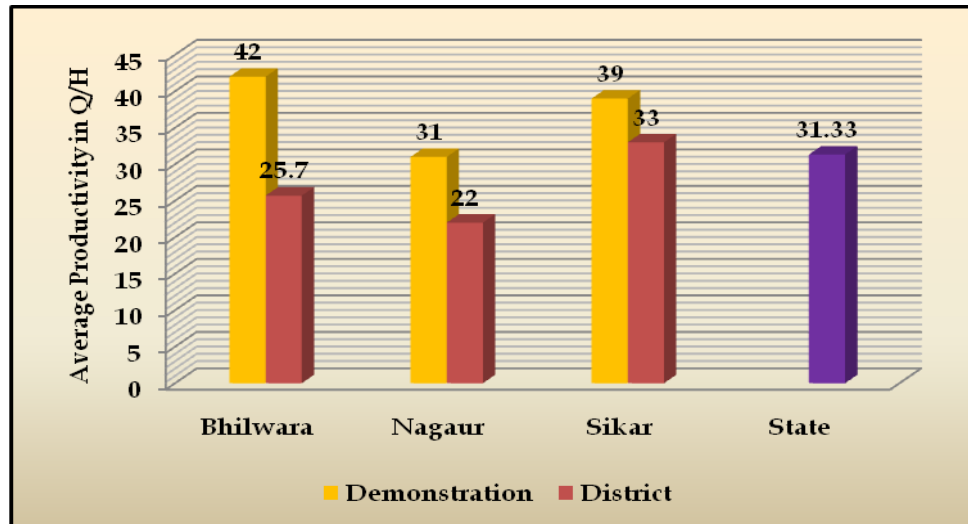


Chart 3: Average productivity comparison between Demonstration and district average

4.2.3 Seed Distribution (incentivized supply of Seed)

Chart-4 given below shows variation between target and achievement with respect to incentivized distribution of seed planned in study districts as well as for the state. It illustrates a negative variation in both physical and financial achievements in all districts as well as state except Bhilwara district.

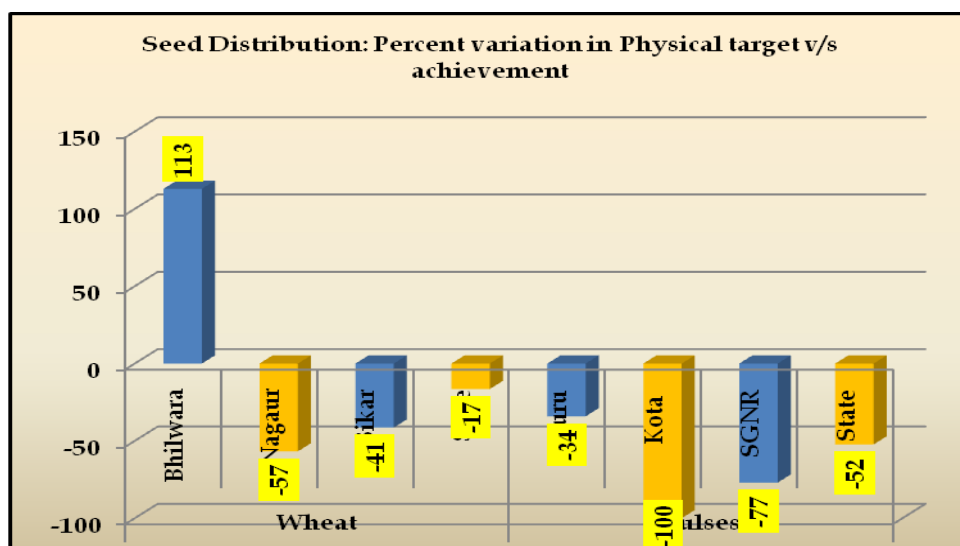


Chart 4: Seed distribution - Percent variation in target v/s achievement

- **Timeliness of seed availability & supply**

According to both DoA officials and beneficiary respondent, delay was observed in supply timelines in some cases from supplying agencies but major reason behind this was procedural delays.

- **Source/crop/variety/class/quantity wise seed supplied and sale price**

Table 5: Detail of seed supplied under NFSM in study districts.

District	Crop	Source	Varieties supplied under NFSM	Average sale price /kg
Bhilwara	Wheat	RSSC	Raj 3765, 4037, 3077, 3777, GW 322, 173, Lok 1	14/-
		NSC	Lok 1, Raj 4037, 3077	
		Private suppliers	Lok 1, Raj 4037, 3077, 1482, 3765	
Nagaur	Wheat	RSSC, NSC, Private suppliers	Raj 1482, 3077, 3765, 4037, 3777, PBW 502, 343, HD 2329, C 306, GW 273, UP 2338, Lok 1, WH 711	14/-
Sikar	Wheat	RSSC	C 306, Raj 3077, 3765, 1482, WH 147, GW 173, PBW 343, 373, UP 2338	14/-
Sri Ganganagar	Pulses	NA	NA	NA
Churu	Pulses	RSSC	Moth: RMO 40	37/-
			Mung: SML 668	43/-



			Gram: GNG 663	25/-
Kota	Pulses	RSSC	Gram: D yellow	13.75/-
			GNG 663, 469	18/-
			Urd: T 9	12/-

- Supply of seed of same cultivar to the same beneficiary during the previous years- In some cases it happened but proper data are not being available for illustration.
- Seed quality-Satisfactory as per germination data observed by beneficiaries.
- Coverage - Total of 183301 quintals of wheat seed has been distributed under NFSM in FY 2010-11 with total expenditure of ` 897.53 lacs.
- Percent share of incentivized supply of certified and truth fully labeled seed in the total supply of respective classes of seed in state/ sample district -Cent percent seed supplied was certified only.

4.2.4 Seed Minikit Program

Seed minikit distribution showed a excellent achievement of 100 percent in all studied district as well as state total.

Table 6: Distribution of Seed Minikit - target v/s achievement

District	Target	Achievement
Bhilwara	1150	1150
Nagaur	1350	1350
Sikar	1350	1350
State	16848	16842

Wherever made available at district from state level, minikits were distributed in well time.

- **Supply of seed minikit of same cultivar to the same beneficiary during the previous years** - Sufficient data was not available to illustrate it.
- **Source/crop/variety wise number of minikits supplied in accordance with the recommendations of seed committee pertaining to name of variety/ size as stipulated and its adequacy**

Table 7: Detail of mini-kits distributed under NFSM in study districts

District	Source	Variety	Numbers
----------	--------	---------	---------

			distributed
Bhilwara	RSSC	GW 322	300
		Raj 3077	850
Nagaur	RSSC	GW 322	1000
	SFCI	Raj 3777	350
Sikar	RSSC	Raj 3777	1350

- Seed quality of minikits-Satisfactory as per germination results shown by both DoA officials and beneficiaries.

4.2.5 INM and soil amelioration program

Huge variation was observed between target and achievements in all districts as well as at state level as shown in chart 5. For wheat crop, Sikar achieved 299 percent while Bhilwara is at 30 percent of set target only. Still total of state achievement is at par to the set targets. For pulses again, Kota achieved 146 percent while Sri Ganganagar is at 29 percent only and state is also far behind (62 percent) the set targets.

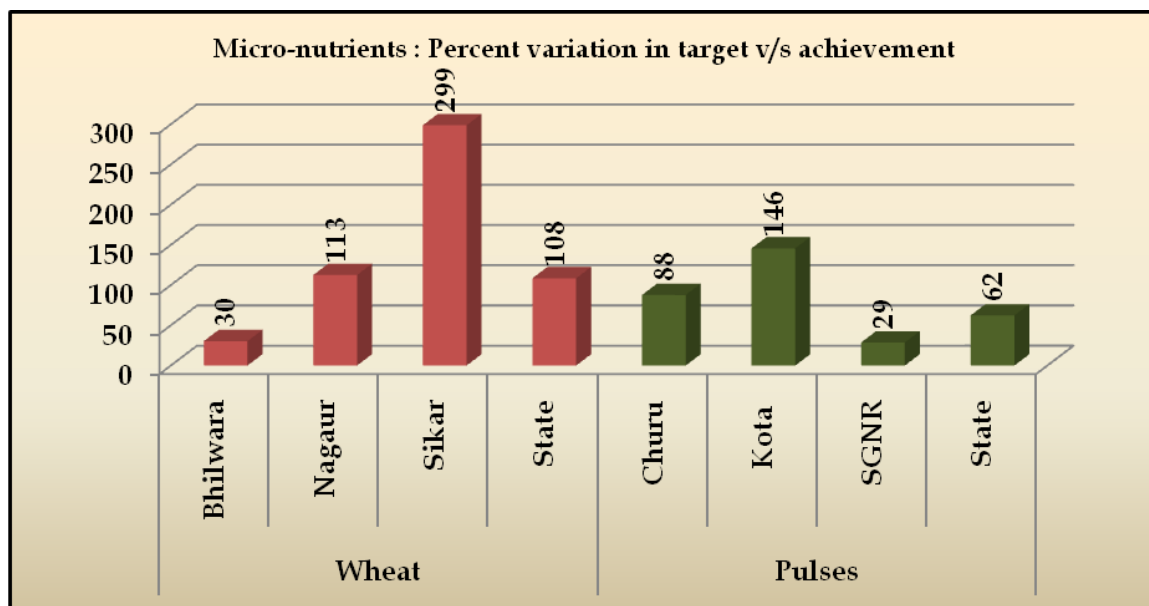


Chart 5: INM and Soil amelioration - Target v/s Achievements

If we look at below chart 6 which is showing status of Gypsum; for wheat crop, Bhilwara achieved 188 percent while Nagaur is at 13 percent only. Similarly, for Pulses, Churu achieved 1772 percent with huge deviation from planning while Sri Ganganagar is at remarkable 100 percent achievement.

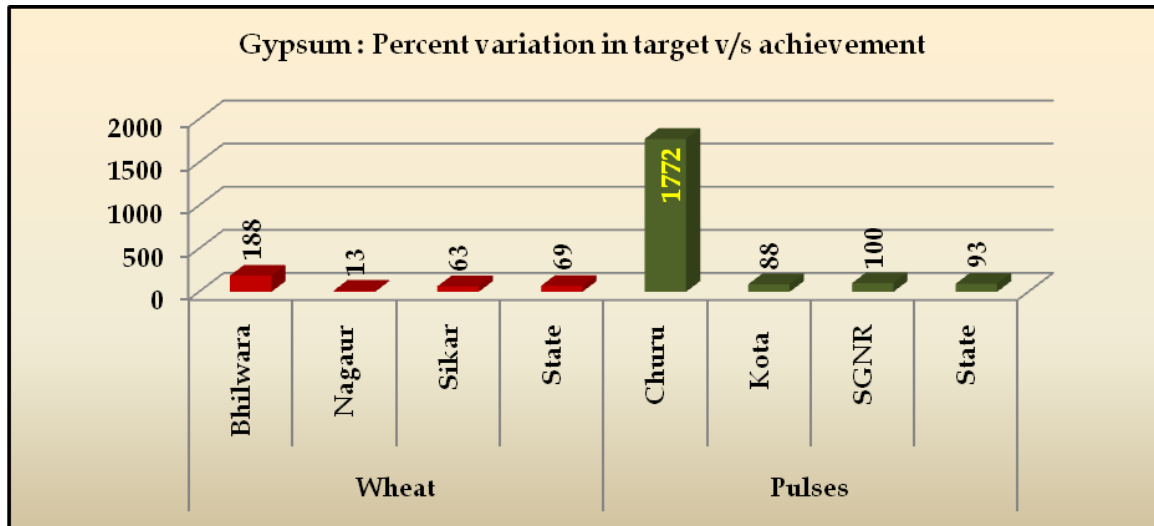


Chart 6: Supply of Gypsum - Target v/s Achievement

- Coverage - In the state total micronutrient was provided for 83509 hectares as incentivized supply under NFSM out of which 54235 hectares to Wheat crop and 29274 hectares to pulse crops across the state.
- Timeliness of availability/supply - It was made available on time as per information from DoA officials.
- Source/brand/ameliorants/micronutrients wise quantity supplied and sale price, coverage as stipulated and its adequacy

Table 8: Detail of Micro-nutrients supplied in study districts

District	Product	Source	Brand	Quantity tonnes	Sale price ` / kg
Bhilwara	Zinc Sulphate	KVSS	Shri Ram Chemicals	43	32/-
	Ferrous Sulphate	GSS	Aries Agro		20/-
Nagaur	Gypsum	RSMML	RSMML	14609	1.65/-
	Zinc Sulphate	Private dealer	NA	5842	32/-
Sikar	Gypsum	NA	NA	100	0.55/-
Churu	Zinc Sulphate	Private dealer	NA	10	36/-
Kota	Gypsum	IPL	IPL	189	0.78/-
	Ferrous Sulphate	Cooperative	NA	5	22/-
	Zinc Sulphate			5	25/-
Sri Ganganagar	NA	NA	NA	NA	NA



- Quality of soil ameliorants/micronutrients -It was observed satisfactory.
- Performance of INM/soil amelioration in enhancing the crop yield -It could be observed for two districts only viz. Nagaur and Sikar where respondents given satisfactory answers about difference in yield of plots with and without Micro-nutrients. Extra yield of wheat observed in these districts was 5.31 and 8 quintals per hectare respectively.

4.2.6 Farm Implements

- Timeliness of availability/supply -As these were procured primarily at local level, timeliness was not a problem and farmer purchased the same as per their comfort.
- Source/crop/variety/brand wise quantity supplied & sale price - Farm implements are procured primarily from local manufacturers registered at respective district DoA offices and order given according to demand from farmers. Prices and quality of these implements also varies at different location but subsidy is fixed as per the item.
- Performance of implements in terms of time saved to perform the operation/ additional area brought under cultivation/ irrigation -There was high demand of farm implements among farmers due to significant difference observed in saving of both time and money.

4.2.7 IPM in pulses

IPM needs considerable amount of efforts in the state as shown in below chart 7 which reveals two third and one forth physical and financial achievement, respectively. District achievements are having much differences as Churu achieved 568 percent of the set physical target while Sri Ganganagar is at zero.

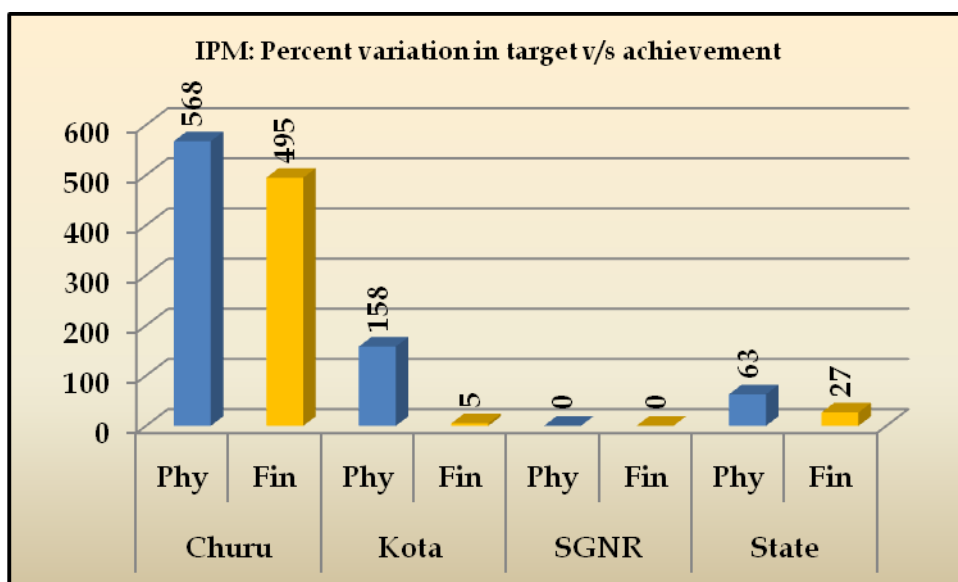


Chart 7: IPM - Percent variation in Target v/s Achievement

- Timeliness of availability/supply - According to information from below mentioned two districts *viz.* Kota and Churu the supply was made available on time.
- Source/brand wise quantity supplied & sale price, coverage as stipulated and its adequacy

Table 9: Detail of IPM tools supplied in study districts

District	Product	Source	Brand	Quantity supplied	Average sale price(`)
Kota	Trichoderma	ATC, Bundi	NA	3 q	100/- per kg
Churu	Pheromone trap	Private dealer	Universal Biotech	650 units	430/- per hectare
Sri Ganganagar	NA	NA	NA	NA	NA

- Quality of bio-pesticides/PP chemicals/devices - It was observed satisfactory.
- Performance of the IPM/ bio-pesticides/PP chemicals in enhancing the crop yield- Sufficient data was not available to illustrate it.

4.2.8 Pilot Project

- Pilot projects of both Blue bull control and cooperative engine sets were not initiated in the state.

4.2.9 Local Initiatives



Projects identified and background/justification - Application and popularization of thio-urea has been initiated on wheat crop in the state for FY 2009-10. It increase resistance in crop against drought stress and helps in increasing yield. For FY 2010-11 Seed treatment, Weed control and Termite control was taken care.

- Thio-urea - Status of projects initiated and the number of farmers benefited as a result of intervention -The chart given below shows a huge over physical achievement of 4167 in the Bhilwara district while over all achievement of the state was 273 percent which reveals good support to the initiative and farmers liked the same.

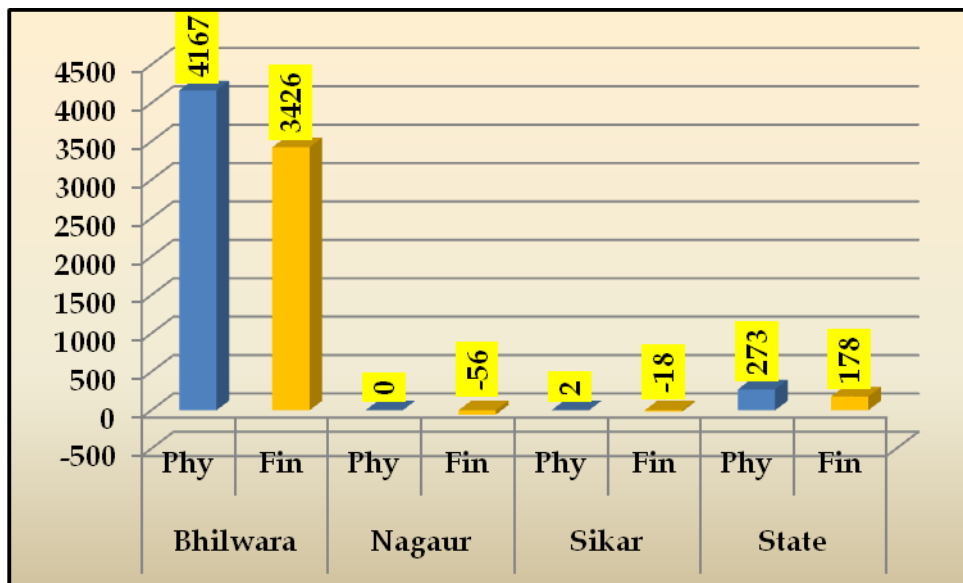


Chart 8: Thio-urea application - Percent variation in target v/s Achievement

- Chemical treatment - below chart show almost at par achievement of the state (27816 hectares out of 30000) in physical terms but financially is one fourth of planned outlay.

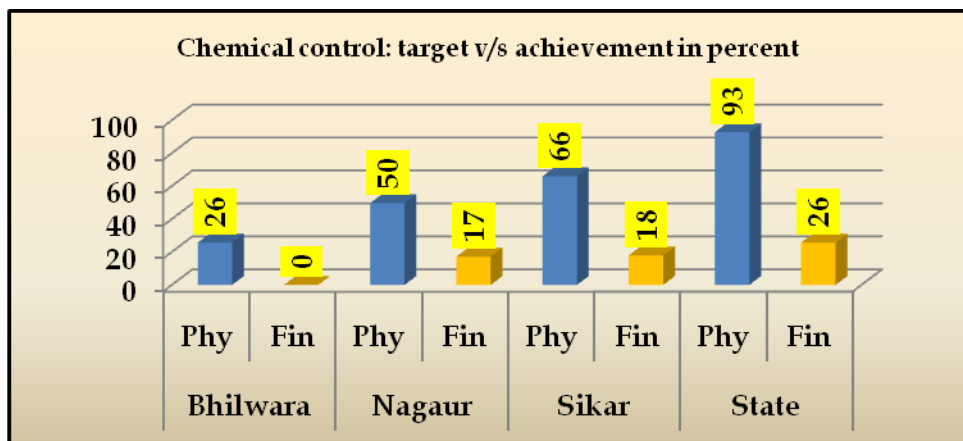


Chart 9: Chemical control - Percent achievement in hectares



- Apart from above, incentivized supply of some farm equipments was also intervened which is as below:

Table 10: Physical and Financial achievement (state) of farm equipments under local initiatives

S#	Equipment	Assistance per unit	% Physical Achievement	% Financial achievement
1	Multi crop thresher	30000/-	140	141
2	Tractor mounted sprayer	5000/-	90	85
3	Duster	1000/-	68	58
4	Disc plough/ harrow	15000/-	133	87
5	Tractor operated reaper	30000/-	91	83
6	Movable threshing floor	1000/-	49	47
7	Seed storage bin	500/-	71	58

- Implementing agencies involved - DoA itself implemented it.
- Efficacy in terms saving of time for performing operation/improvement in quality/ reduction in produce loss - Overwhelming response across state confirms its performance that it increased the yield and quality of crop.

4.3 Contribution of NFSM interventions to area, production and yield of wheat & Pulses

Contribution of NFSM has been worked out on the basis of pooled data of NFSM districts, Non-NFSM districts and total of NFSM and Non-NFSM districts in the State. Comparison has been made with base year i.e. FY 2006-07 when this mission was launched in the state. Comparison has been done for both Wheat crop and Pulses under (Rabi and Kharif) separately to find contribution of NFSM in both crops.

4.3.1 Contribution to Wheat Crop

The chart given below depicts the comparative illustration of area, production and productivity of wheat crop between NFSM and non-NFSM districts and current year with base year. In comparison to base year, total area under NFSM districts has increased by 10 percent and accordingly production has increased by 28 percent while non NFSM districts achieved 25 and 38 percent increase in area and production, respectively. If we look at productivity, NFSM district are away then non-NFSM district (16 and 11 percent, respectively).

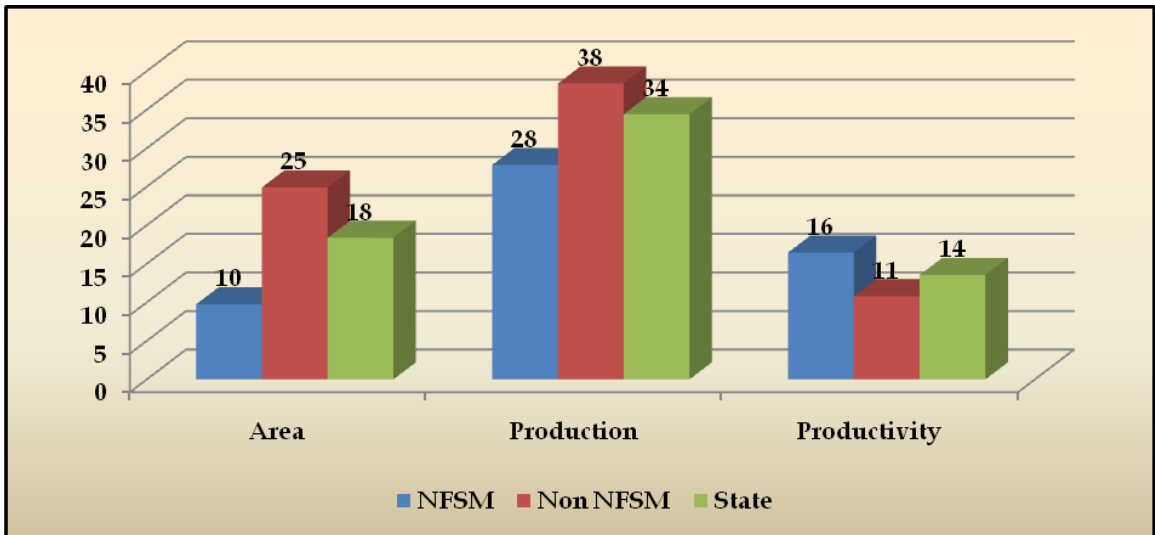


Chart 10: Comparison of percent Area, Production and Productivity in Wheat crop from base year

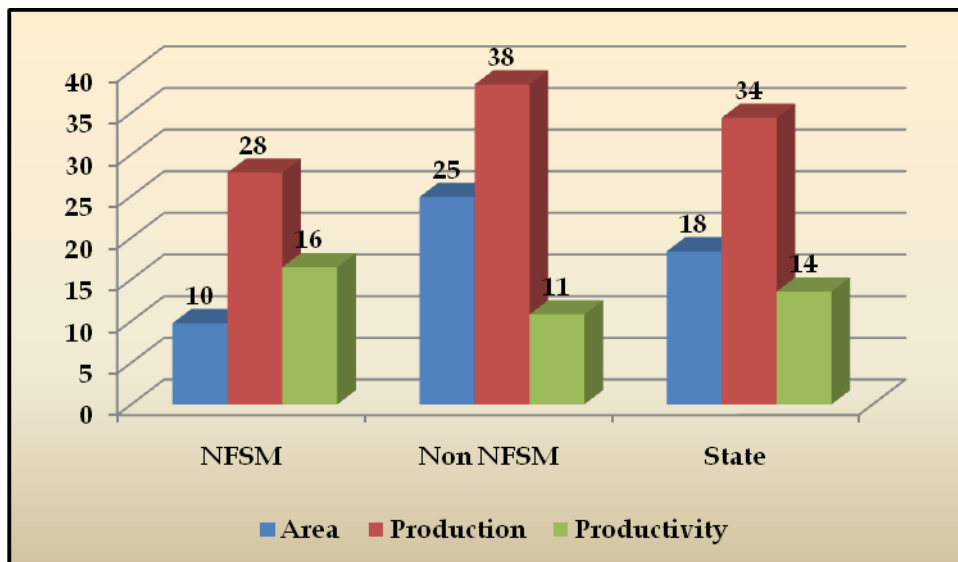


Chart 11: Comparison of NFSM and Non-NFSM districts vis-a-vis Area, Production and Productivity in Wheat crop from base year (in percent)

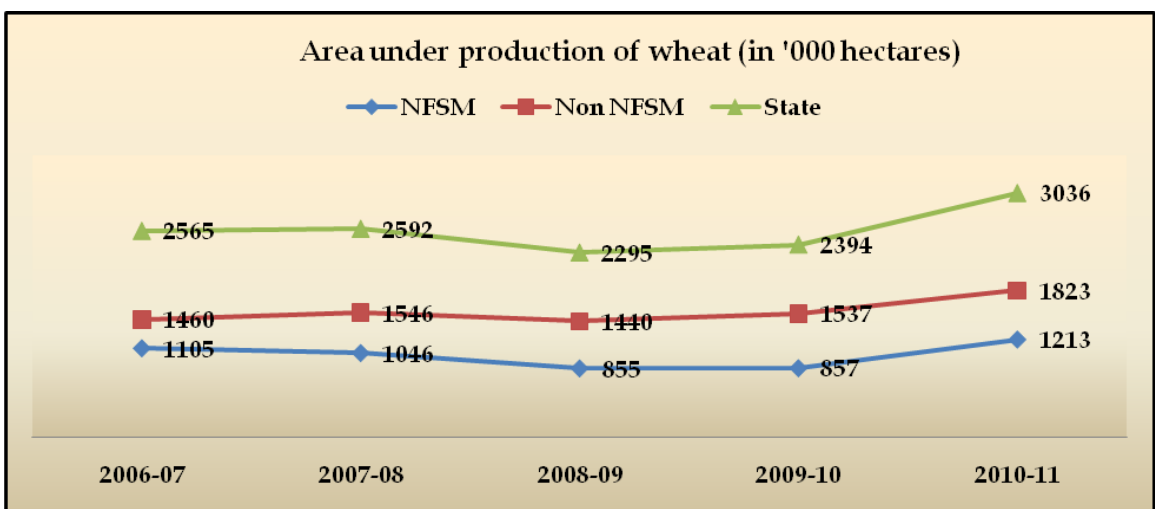


Chart 12: Comparative chart of Area under production of wheat (in '000 hectares)

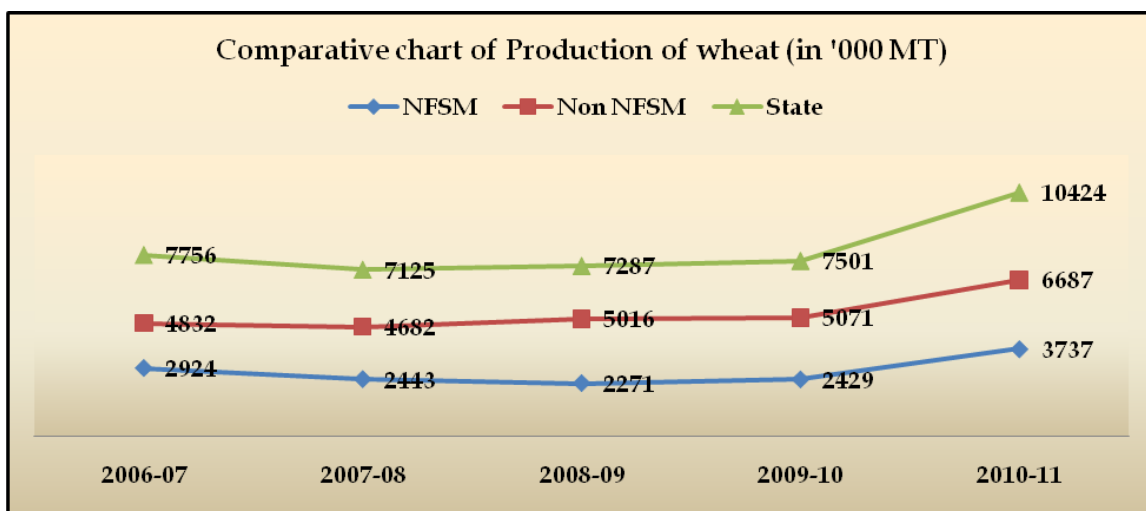


Chart 13: Comparative chart of Production of wheat (in '000 t)

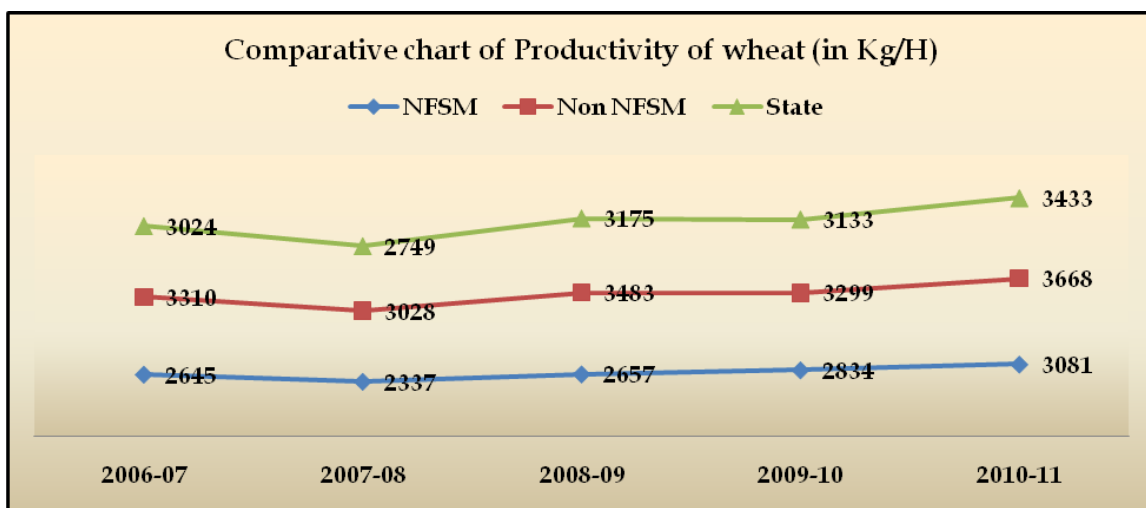


Chart 14: Comparative chart of Productivity of wheat (in kg/ha)

4.3.2 Contribution of NFSM in Pulses

In comparative illustration of area, production and productivity of Pulse crops between NFSM and non-NFSM districts and current year with base year, very good growth has been observed in both NFSM and non-NFSM districts with respect to both Production and productivity even though area has increased in NFSM districts.

In NFSM districts, an excellent growth of 57, 134 and 49 percent has been observed in total sown area, production and Productivity, respectively. In non-NFSM districts, all three measures viz. area, production and productivity have decreased by 20, 101 and 68 percent, respectively. Here, it is to be mentioned that districts covered under NFSM are having lesser sources of irrigation in



comparison to non-NFSM districts which led to comparatively less productivity.

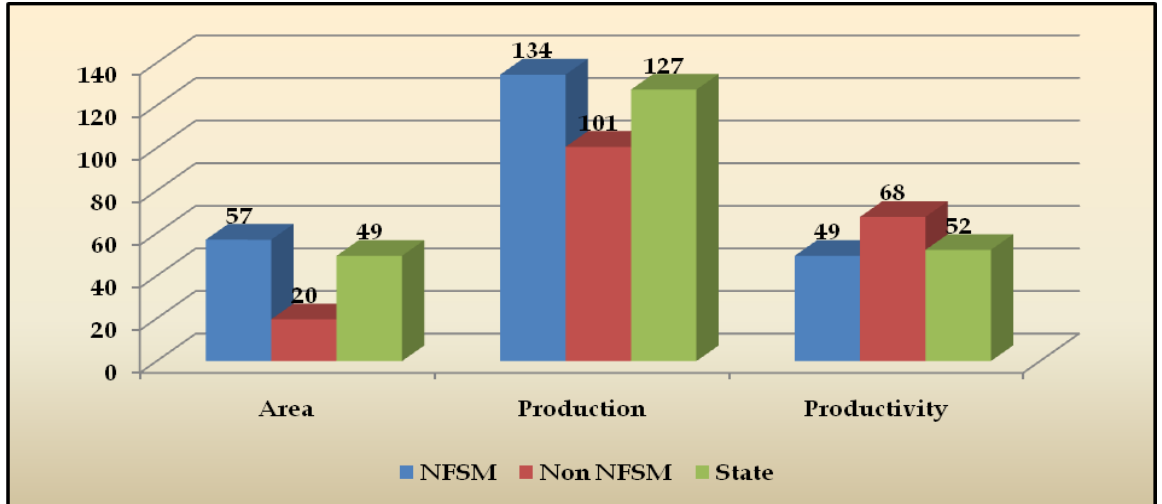


Chart 15: Comparative chart of Area, Production and Productivity of Pulse crops from base year (in percent)

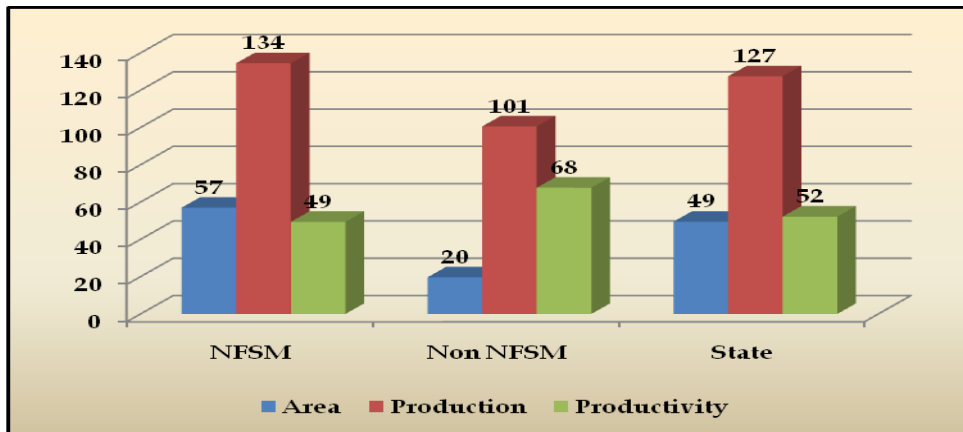


Chart 16: Comparative chart of NFSM and Non-NFSM districts in Pulse crops from base year (in percent)

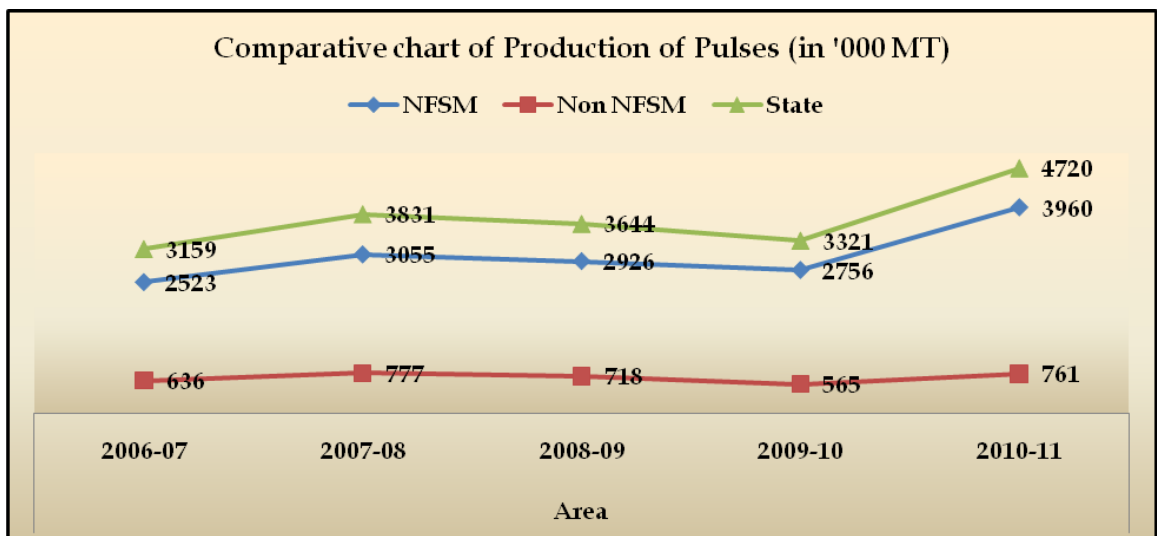


Chart 17: Comparative chart of Area under production of Pulses (in '000 Hectare)

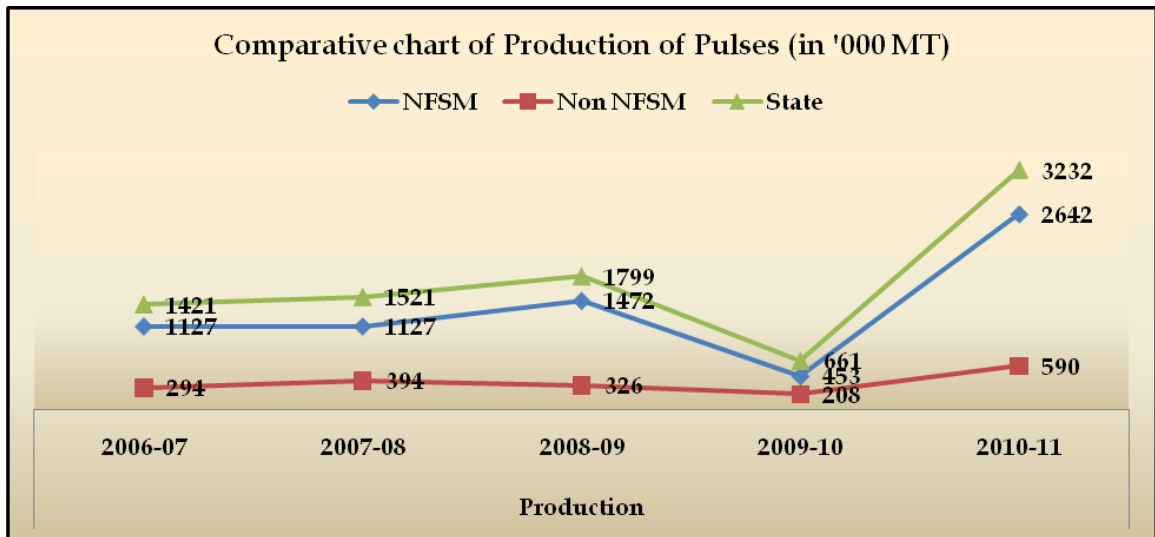


Chart 18: Comparative chart of Production of Pulses (in '000 t)

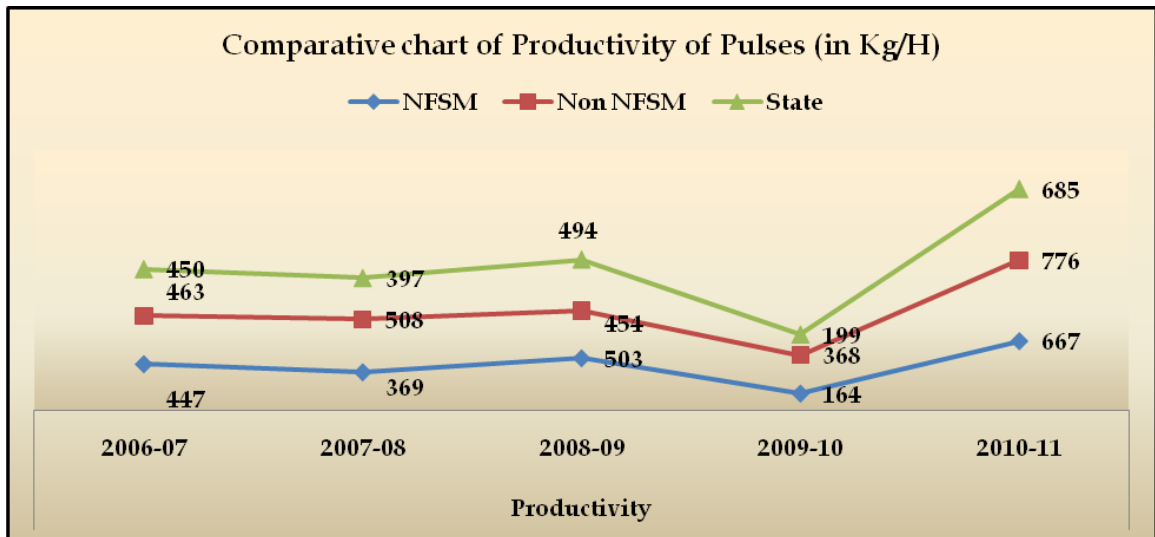


Chart 19: Comparative chart of Productivity of Pulses (in kg/ha)

4.4 Collaboration among stakeholders

Table 11: Detail of stakeholder' collaboration under NFSM

Sr. No.	Stakeholder's Name	Role assigned	Role accomplished	Comparative performance
1	NSC	Supply of good quality seed	Seed supplied with mixed feedback from different officials ranging from good to below average	In timeliness of supply, among government agencies; RSSC was observed better over NSC and Rajfed. But
2	RSSC	Supply of good quality seed	Seed supplied with mixed feedback from different officials ranging from good to	if compared to private vendors which are registered with state or respective district



			below average	offices, timeliness is even better than RSSC.
3	Rajfed	Supply of good quality seed	Seed supplied with mixed feedback from different officials ranging from good to below average	
4	SFCI	Supply of good quality seed	Seed supplied with mixed feedback from different officials ranging from good to average	
5	RSMML, IPL	Supply of good quality Gypsum	Supplied as per prescribed quality	
6	KVSS	Supply of good quality agri-input		Lack of cooperation and coordination with DoA observed
7	GSS	Supply of good quality agri-input		
8	ATC/ KVK	Bio-pesticides like Trichoderma	Supplied as per prescribed quality	Shortage of required material due to technical reasons
9	Private suppliers registered at state and respective District offices	Supply of good quality agri-input	Supplied various agri-inputs with mixed feedback from different officials ranging from good to average	Mostly local level association with respective departments hence can not be compared.

4.5 Convergence of NFSM with other state/ GOI/ International/ corporate funded scheme

- NFSM it self a large scale mission having enough budgetary allocations. Apart from financial sufficiency, another reason of non-convergence was insufficiency of manpower.

4.6 Institutional building

All units of SAUs, KVKs, ARS etc. are associated with this mission at respective district level to give technical inputs and in further years also their association will fulfill the requirement of the mission.

CHAPTER - 5

Farmer's perception and feedback

5. A Sample profile

5.A.1 Distribution of farmers according to districts - Out of total 13,140,066 cultivators in selected six districts, there was no data available that how many farmers benefitted through this mission. Sample farmers were selected randomly but total numbers of respondents were similar in all districts i.e. 60.

Table 12: Distribution of beneficiaries and respondents in study districts.

Sr. No.	District	Number of Cultivators	No. of total beneficiaries under NFSM*	Total number of respondent beneficiaries under study
1	Bhilwara	532597	16649	60
2	Churu	853899	22610	60
3	Ganganagar	271234	6785	60
4	Kota	144043	32399	60
5	Nagaur	697175	18880	60
6	Sikar	534423	23093	60
	Rajasthan	13,140,066	301389	360

- FY 2010-11

5.A.2 Distribution of respondent farmers according to category

Out of 360 respondents, 20% were from general category while 21, 11 and 48 percent from scheduled Caste, Scheduled Tribe and Other Backward Caste, respectively. In Sri Ganganagar, highest benefitted respondents were from general category while in Churu, Nagaur and Sikar it was OBC. In Bhilwara district it was ST as this district having high population of STs.

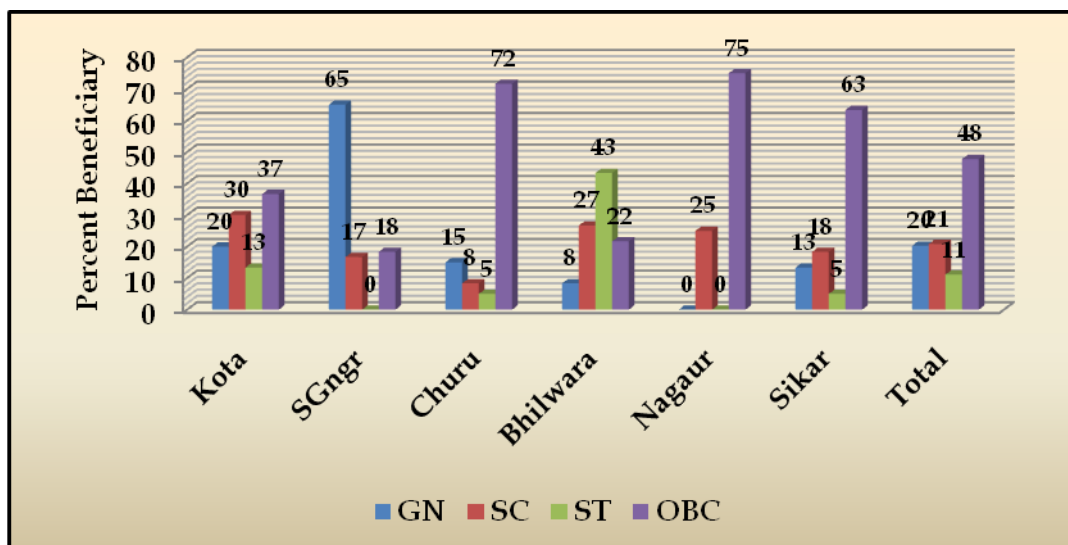


Chart 20: Distribution of respondent farmers across category

5.A.3 Distribution of respondent farmers according to activity

Results obtained on the responses of select beneficiaries were very atypical while comparing each selected district. Number of respondents attended FFS were as low as 2 percent in Nagaur while as high as 50 and 42 percent in Sri Ganganagar and Sikar respectively. Likewise, Demonstration of improved seed of wheat was adopted by 62 percent respondents in Bhilwara while it was only 12 and 13 percent in Nagaur and Sikar districts respectively. District wise difference was not much in adopting incentivized seed purchase except Bhilwara district where 100 percent respondents took interest in incentivized seed where as on an average it is 55 percent only. Incentivized supply of Micro nutrients ranged between 3 to 42 percent with average of one fourth of respondents. Here, no one adopted uses of Lime and Gypsum (except one) and maximum used Zinc Sulphate and Ferrous Sulphate as measure of INM. Good number of respondents took interest in adopting new technology based farm machines through NFSM and on an average 32 percent of respondents were benefitted through this component of incentivized supply. Incentivized supply of inputs for IPM were available for Pulses only and respondents of Kota and Sri Ganganagar did not take any benefit and even in district Churu also, only 10 percent respondents benefitted under this component.

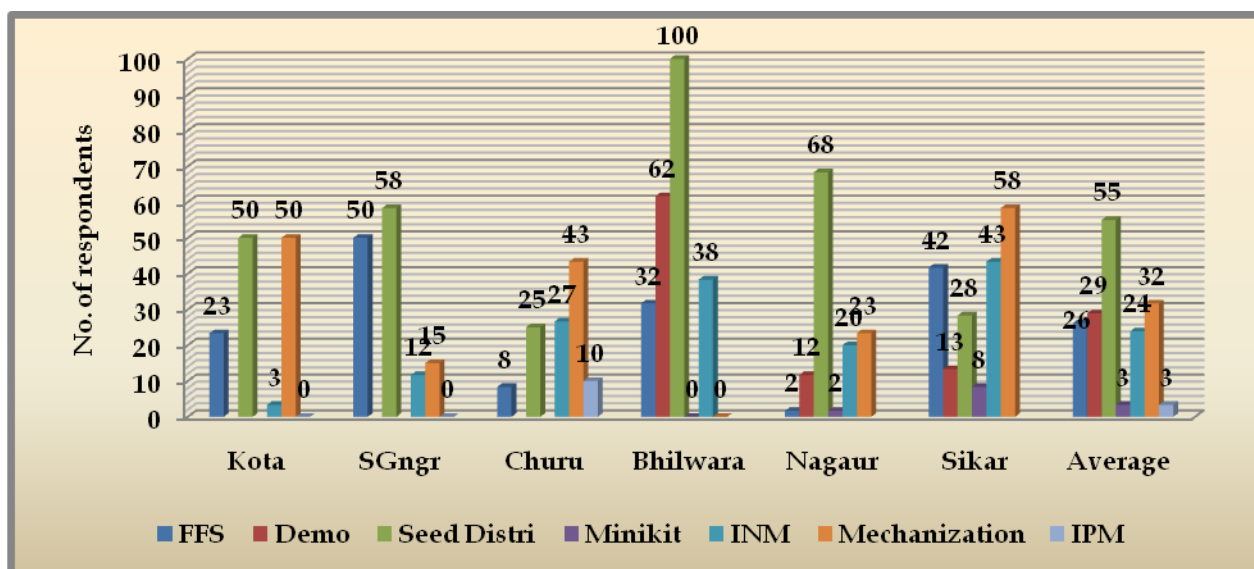


Chart 21: Distribution of respondent farmers according to activity

5.A.4 Distribution of respondent farmers according to gender

On an average less than 6 percent beneficiary respondents were found in female category while more than 94% belonged to male.

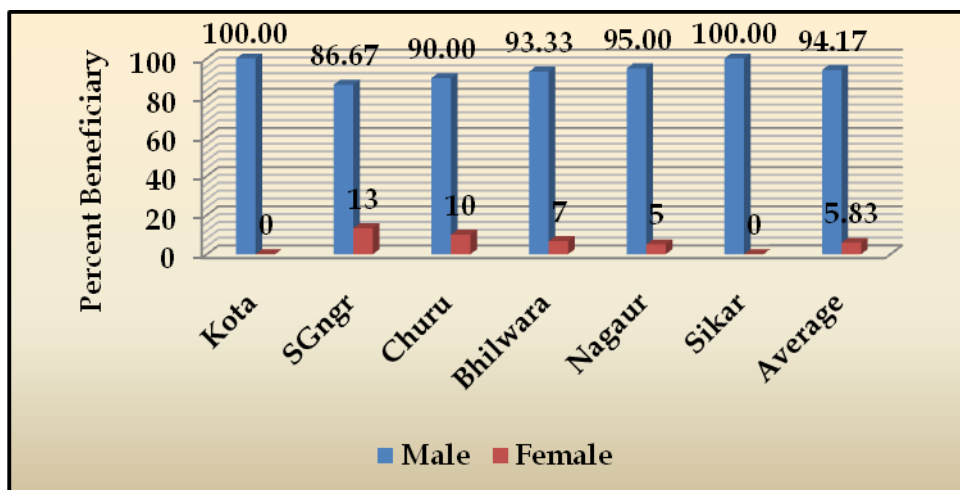


Chart 22: Distribution of respondent farmers according to gender

5.B. Proportion of cultivable area in the total land holding of respondents

97 percent land in all study districts was cultivable out of total average land ownership and out of this cultivable land, 91 percent was irrigated. Total available cultivable land was 100 percent in four districts viz. Kota, Sri Ganganagar, Nagaur and Sikar and total irrigated area out of total cultivable area was highest in two districts viz. Kota and Nagaur. Below chart shows figures in average land holding (total, cultivable and irrigated) to illustrate the same.

Table 13: Percent cultivable and irrigated area with respondents.

District	% Cultivable area	% Irrigated area
Kota	100	100
Sri Ganganagar	100	97
Churu	93	76
Bhilwara	91	84
Nagaur	100	100
Sikar	100	90
Average	97	91

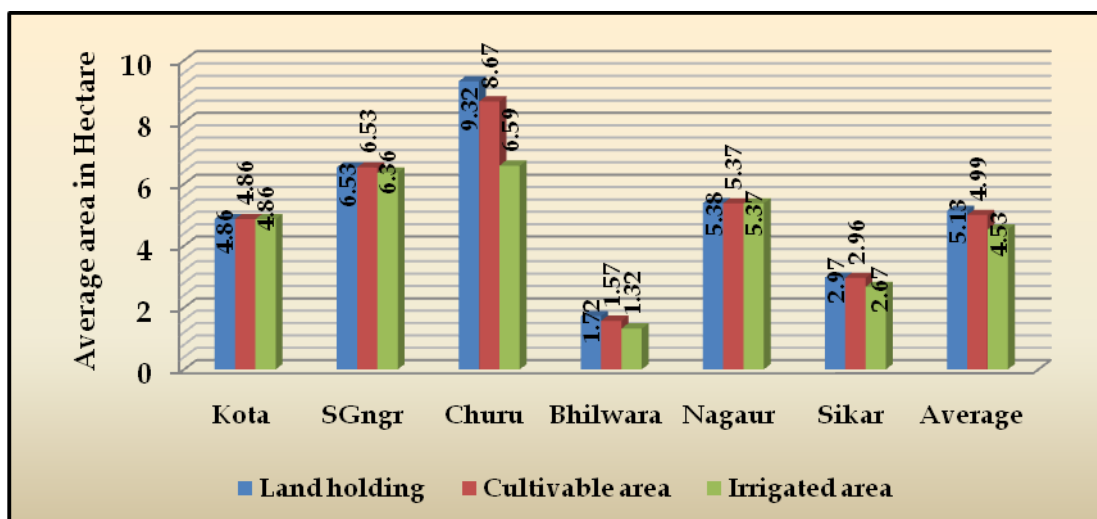


Chart 23: Land use pattern of respondents under study

Total number of source of irrigation used by respondent beneficiaries - It bring out that highest cultivable area was irrigated through bore wells in three districts viz. Churu, Nagaur and Sikar (95.74%, 86.67% and 100%, respectively) while respondents of Kota and Sri Ganganagar were using Canal water as major source of irrigation 73.34% and 100%, respectively. Moreover, Bhilwara was still dependent on wells (83%) but over all uses of wells was lowest among totality of all study districts.

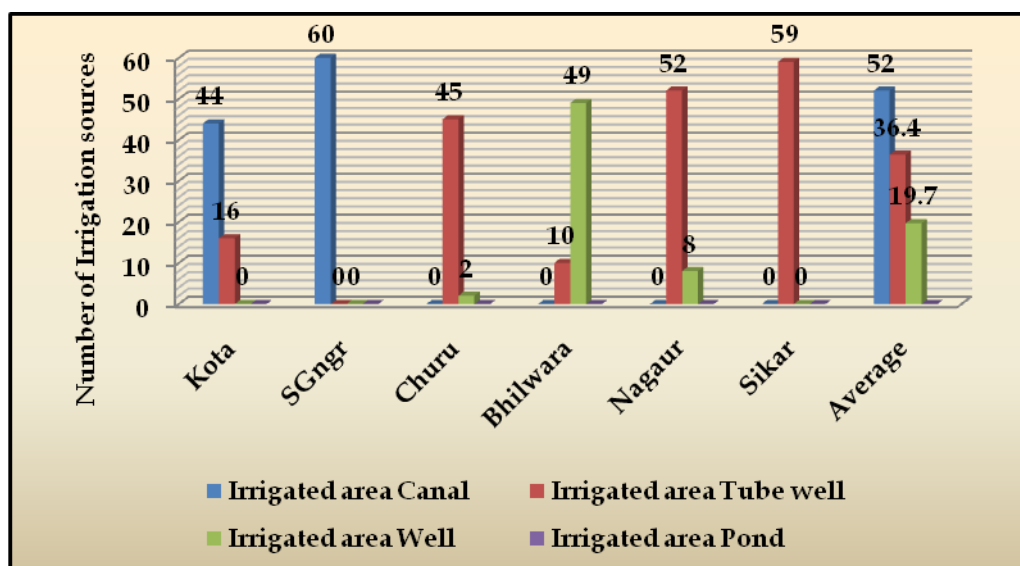


Chart 24: Sources of irrigation with respondents

5.C. District, crop and season wise area of production and productivity estimates of respondents in comparison with the yield obtained in crop cutting results/NFSM demonstrations/ district level statistics

Season wise a comparative analysis of Productivity of Pulses in respective selected district under this study presented in Chart - 25. It reveals difference ratio of 1.18:1 between productivity of respondents farms (12.63 q/ha) and district average of Kota (10.7 q/ha) while this ratio was 2.34:1 in Kharif season (10.64 and 4.54 q/ha). In Sri Ganganagar district, no one grows pulses in Rabi season while in Kharif season the productivity ratio between respondent's farm and district average was 1.62:1. In Churu district difference between respondent's farm produce and district average was huge with ratio of 3.97:1 in Rabi and 17.66:1 in Kharif season.

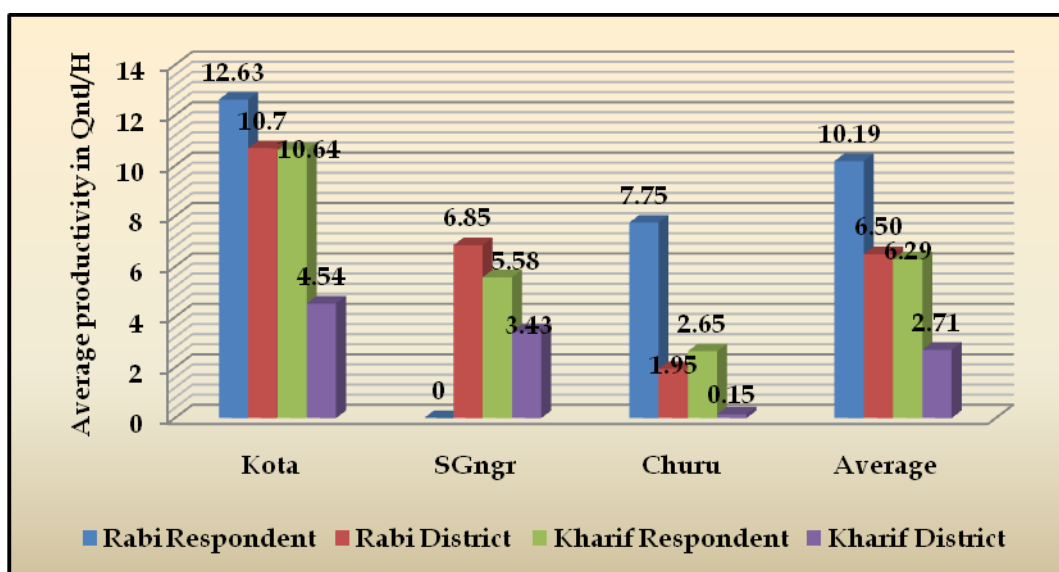


Chart 25: Season wise comparative analysis of Productivity of Pulses in study districts

Wheat growing season was Rabi only and following chart shows difference in productivity of respondent's farm and district averages which was on an average 137% higher with NFSM beneficiary respondents. If we look at different select districts, it was 137, 155 and 125 percent higher with respondents in comparison to district average in Bhilwara, Nagaur and Sikar districts respectively as shown in chart - 26.

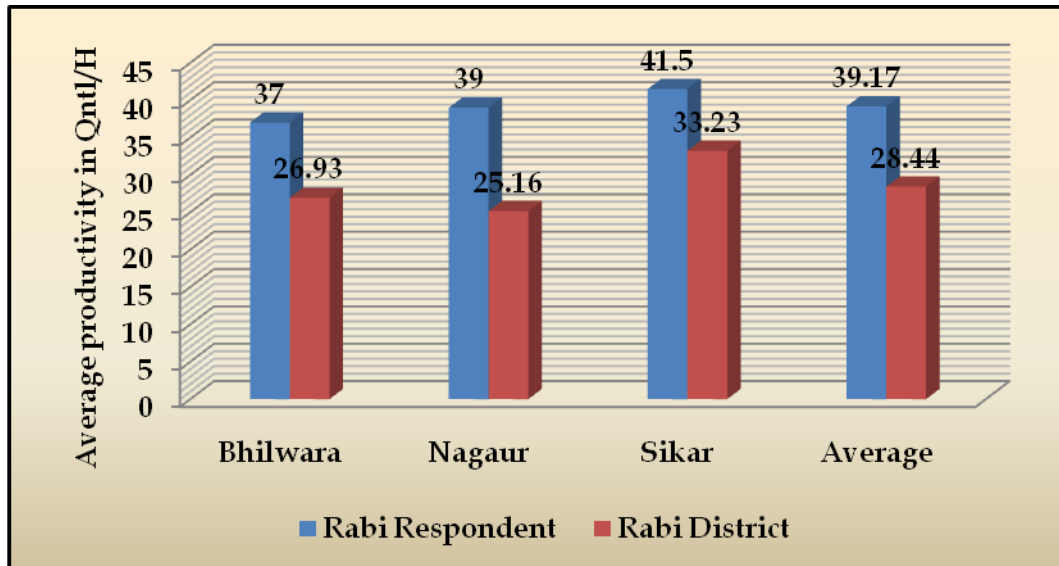


Chart 26: Comparative analysis of wheat productivity of respondents with districts average

5.1 Training on FFS pattern

5.1.1 Component (crop) specific program coverage and its adequacy

Actual situation of program coverage with respect to FFS conducted are presented in table - 14. Bhilwara district leads the number of farmers attended FFS.

Table 14: FFS details of study districts

Sr. No.	Crop	District	No. of FFS conducted *	No. of farmers attended FFS *	No. of respondents attended FFS
1	Wheat	Nagaur	13	23	1
2	Wheat	Bhilwara	10	900	19
3	Wheat	Sikar	8	NA	25

*Source of data: report of Dy. Dir. Agriculture of respective districts

5.1.2 Beneficiary selection process

Beneficiaries were primarily those on whose farms demonstration was carried out. Other than that all farmers were welcomed whoever interested to join the FFS. Organizers had to work hard to attract farmers as farmers having lack of interest in attending the same. However, in Sri Ganganagar, Bhilwara and Sikar districts, respondent farmers took more interest in comparison to other ones.

5.1.3 Adherence to norms with respect to site selection, duration, participation, training materials, technical backstopping and other stipulations

The programme primarily adhered to guidelines in respect to selection of site and most of FFS organized within village boundary or nearby place of demonstration plots. Technical support was provided by SAU's scientists from KVK/ ARS. Participation of farmers was problem in districts viz. Kota, Nagaur and Churu. No respondents were able to show any technical material provided during FFS.

5.1.4 Assessment on practical skill imparted on improved crop production practices from field preparation to harvesting.

As showing in the table # 15, average respondents imparted skill and/ or Proficiency in respective Skill set in all six districts. Data given are in percentage calculated out of total number of respondents attended the FFS.

It is revealed from this table that highest skill imparted is for Inter culture-operations (100%) followed by recommended dose and method of Seed treatment and Information about reliable source of manufacturers and suppliers of Agriculture input (both 96%) while highest proficiency acquired is for Preparatory Tillage (75%) followed by recommended dose and method of Seed Treatment (74%) and Method and frequency of Irrigation (70%).

Table 15: Average skill attained by respondents from FFS.

S.No.	Skill Set for FFS		Average
1	Soil Analysis	S	83
		P	64
2	Tillage	S	91
		P	75
3	INM		
a	Manure	S	84
		P	61
b	Fertilizer	S	81
		P	49
c	Micro-nutrients	S	81
		P	67
d	Gypsum	S	81
		P	67
5	Seed Treatment	S	96
		P	74
6	Inter-culture operations	S	100
		P	68
7	Irrigation method and numbers	S	89
		P	70
8	Disease diagnose	S	81
		P	59



9	Farm equipments	S	80
		P	30
10	Information about suppliers of agri. input	S	96
		P	56

S - Skill Imparted, P - Proficiency Acquired

Like wise lowest Skill imparted is for recommended operation specific improved farm implements and their maintenance (80%) while lowest proficiency acquired for again farm equipments only.

In Nagaur district only one respondent attended FFS and given a positive affect on average calculation of all six districts regarding all skill sets.

5.1.5 Feedback from beneficiaries on FFS relating to its relevance and farmer's expectations from this activity

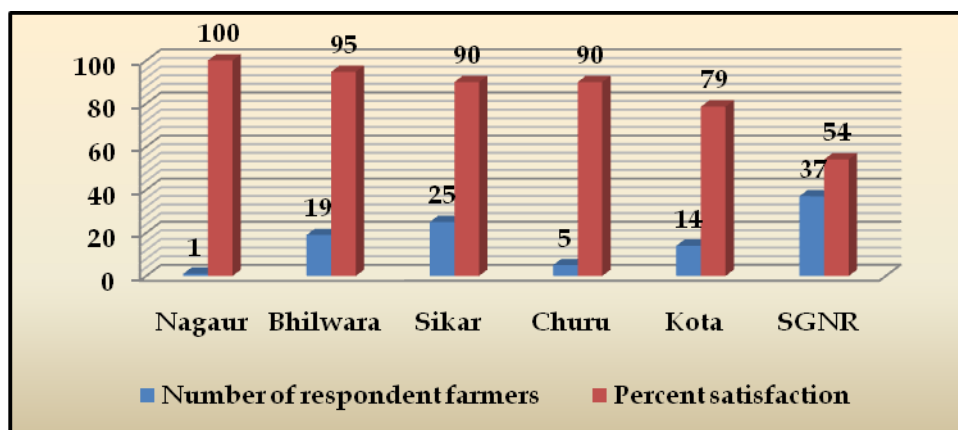


Chart 27: Satisfaction level vis-à-vis expectations of farmer respondents from FFS

In Chart -27, satisfaction level vis-à-vis expectations of farmer respondents from FFS in respective districts have been shown. In Nagaur it was 100% due to minimal number of sample i.e. one only. Except it, Bhilwara, Sikar and Churu showed high level of farmer's satisfaction towards FFS conducted in their respective area while in

Sri Ganganagar it was 54 percent only while highest numbers of farmer respondents were found here only.



Figure 2: Farmers getting trained during FFS organized under NFSM

5.2 Demonstration

5.2.1 Coverage of beneficiaries for demonstration type (HYV- wheat) and adequacy

Chart - 28 shows coverage of the mission with regards to number of farmers benefited through demonstrations of Wheat crop. Out of total 180 beneficiary respondents, 52 were benefitted directly (demonstration plot owner farmer) by this activity of the mission while 890 farmers were benefitted indirectly. Highest (71%) number of directly benefitted farmer respondents found in Bhilwara district while in Nagaur and Sikar district it was 13.5 and 15.4 percent, respectively. On an average, only 32.7 percent beneficiary respondents were benefitted directly through this activity.

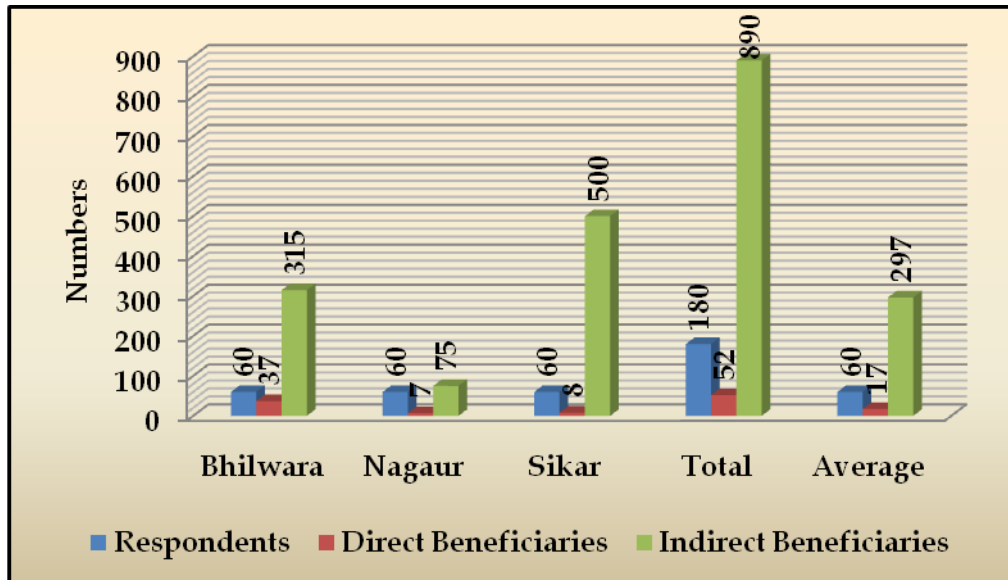


Chart 28: Number of farmers benefited through demonstrations of Wheat crop

- **Status of soil testing**

On average only 53 percent beneficiary respondents got tested their field soil before demonstration which was more or less similar in all three districts i.e. 51, 57 and 50 percent in Bhilwara, Nagaur and Sikar districts, respectively.

- **Coverage during briefing**

With respect to knowledge of package of practices of the demonstrated crop, again on an average only half of the respondents got detailed information. In Bhilwara district, it was 62 percent while in Sikar it was 25 percent only.

- **Display board and its contents** - Bhilwara was the only district where 54 percent (20 out of 37) respondents got display board at demonstration plot while in other two districts, no respondent found with any display board.

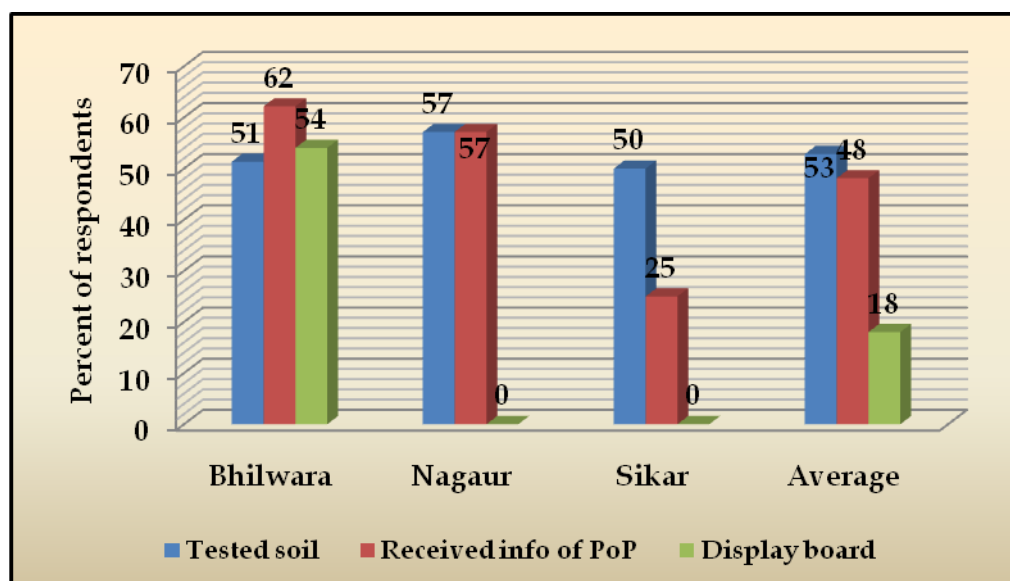


Chart 29: Status of Soil testing, PoP and Display boards at respondents' Demonstration field

- **Inputs received along with the quantity, timeliness, variety and other inputs applied compared with farmers practices**

Chart - 30 and 31 shows uses of input received under NFSM in comparison with inputs used in control plot. These charts reveals that as traditional practices in control plots, farmers used these inputs at higher rate in comparison to what received under NFSM which was according to recommended package of practices. Weedicide was exception here for which still some farmers were either not well informed or not aware and they used it less than recommended rate.

These charts also reveals that in Sikar district, difference between quantity of inputs received under NFSM and control plots was very minimal while in other districts the difference was high.

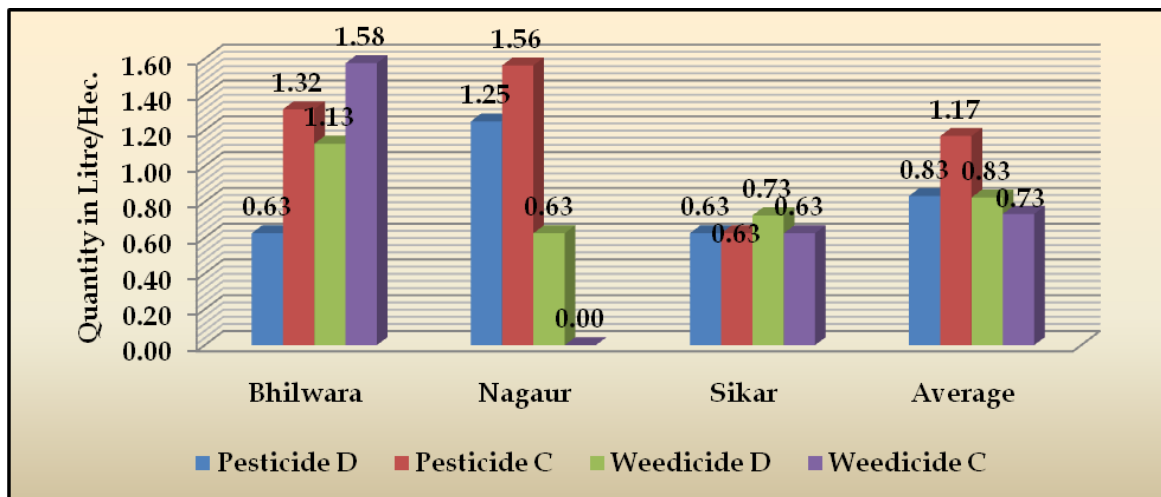


Chart 30: Comparison between pesticides used in Demo and Control plots at respondent's field

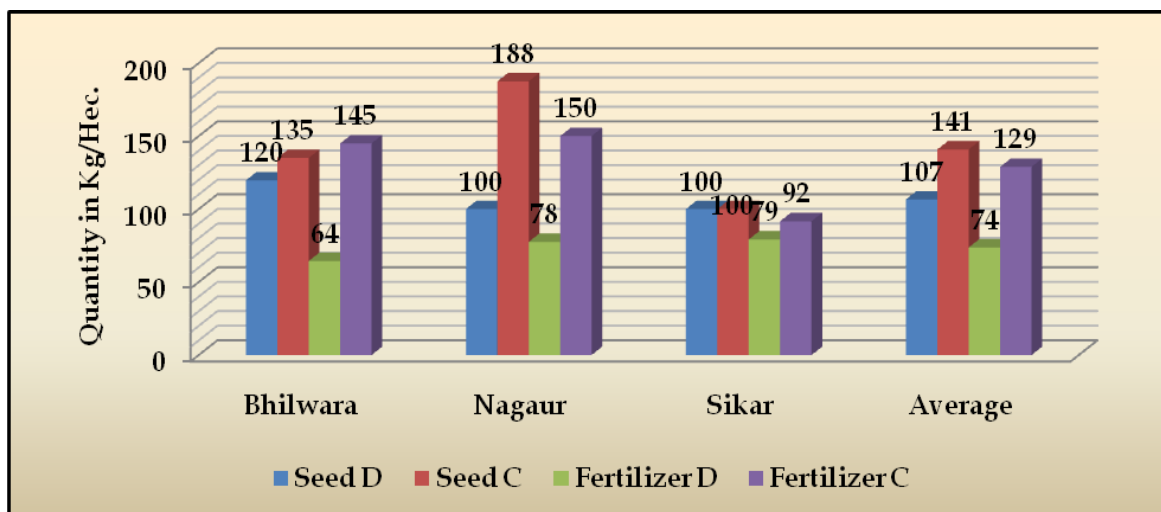


Chart 31: Comparison between Seed and Fertilizer used in Demo and Control plots at respondent's field

D-Demo plot, C-Control Plot

Regarding timeliness of supply of inputs, beneficiary respondents were unable to show exact dates but almost all said that all inputs were made available to them during month of November. In Bhilwara district supply was delayed, reason of which mentioned by DoA is delayed supply by RSSC.

Seed received under NFSM was certified and major varieties made available as per respondents were viz. Lok 1, RAJ 3077, 4037, 3777, 3765, 1482, PBW 502, 343.

Chart - 32 shows feedback of beneficiary respondents on quality of input received under NFSM which reveals that on an average almost all respondents were satisfied with the quality.

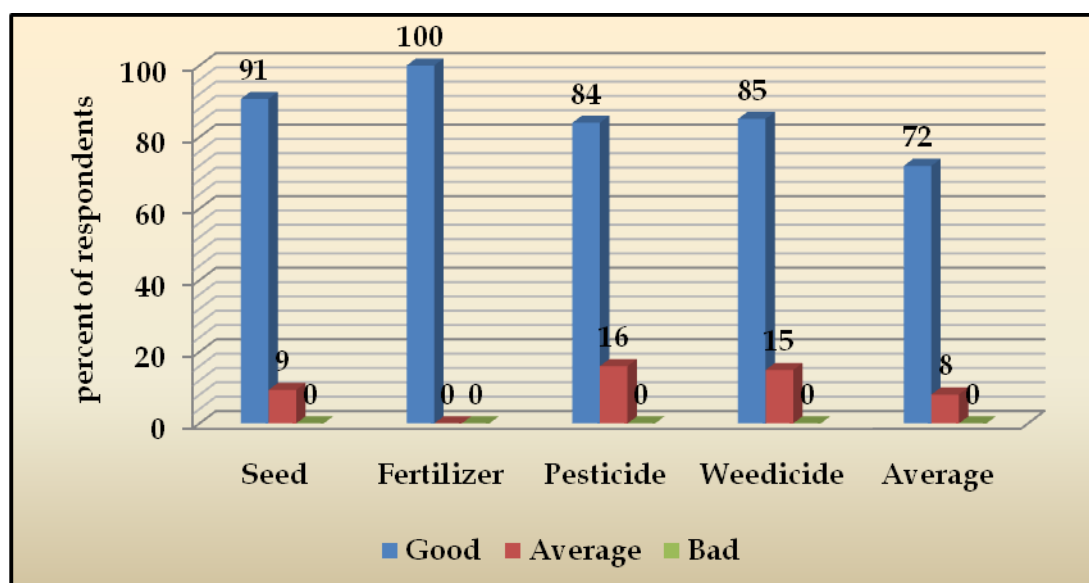


Chart 32: feedback of beneficiary respondents on quality of input received under NFSM

- **Organization of field day and comments on their appropriateness:**

Table - 16 brings out situation of field days organized at demonstration plots. According to it, only 55.7% demo plots respondents attended field days. In 29 field days, only 91 farmers were present and only 0.25 Agri. scientists from SAU/KVK/ARS/NGO attended these Field days (Sikar district only). In Bhilwara district, no respondent received any literature while in other district also figures were negligible. On an average half of the direct beneficiaries were likely to sow the same variety of the wheat next year.

Table 16: Details of demonstrations in study districts

District	Bhilwara	Nagaur	Sikar	Total
No. of Demonstrations	37	7	8	52
No. of Demo where FD organized	18	7	4	29

		(48.6%)	(100%)	(50%)	(55.7%)
Average no. of farmers attended FD		21	25	45	91
Average no. of FD attended by Agri-scientist		0	0	0.25	0.25
Average no. of farmers received literature		0	0.86	0.75	1.61
Stage of crop on field day	Grain Filling	15	5	4	24
	Other	3	2	0	5
Ready to sow next year		17 (46%)	6 (86%)	4 (50%)	27 (52%)

- Yield advantage of the new variety in comparison to farmer's practice**

Chart - 33 and Table - 17 shows yield advantage of the new variety in comparison to farmer's traditional practices in control plots. It revealed an average difference of 4 quintals per hectare; highest in Sikar (6 q) followed by Bhilwara (5 q) and Nagaur (1 q/ha).

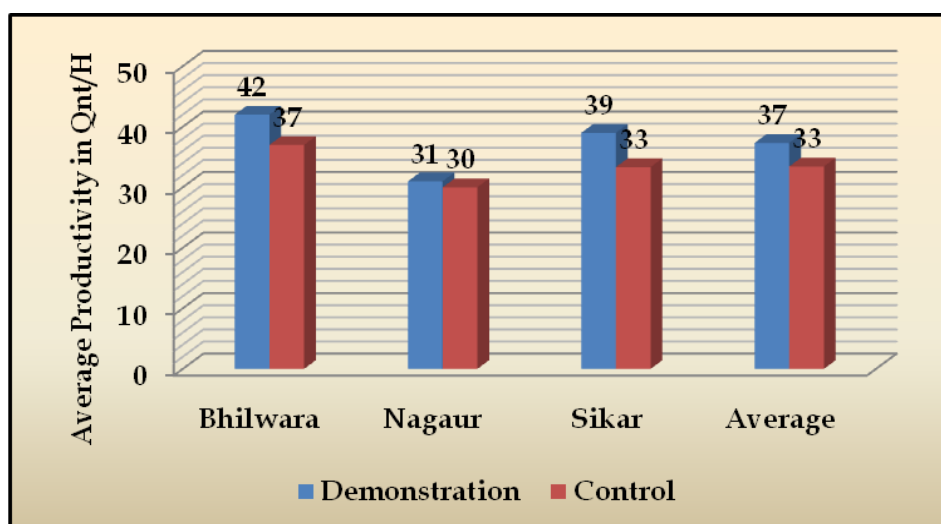


Chart 33: Productivity of the demo plots in comparison to control

Table 17: Area and Productivity of demonstrated crop -comparison with control

District	Demo area			Control area		
	Average Area in Hectare	Average Production in q	Average Productivity in q/ha	Average Area in Hectare	Average Production in q	Average Productivity in q/ha
Bhilwara	0.24	9.75	42	0.58	21.17	37
Nagaur	0.39	12.14	31	1.52	28.40	30
Sikar	0.39	15.00	39	0.45	14.42	33
Average	0.34	12.30	37	0.85	21.33	33



Figure 3: Field day on farmer's demonstration plot of pulses in Kota district

5.3 Seed distribution (incentivized supply of seed)

- Name of the variety supplied & seed purchased by farmers

Varieties purchased by respondent beneficiaries and supply done through NFSM were as follows:

Table 18: Crop varieties used by farmers in study districts

District	Crop	Purchased by Respondents	Overall supplied under NFSM
Bhilwara	Wheat	Raj 3777, 4037, GW273	Raj 3765, 4037, 3077, 3777, 1482, GW 322, 173, Lok 1
Nagaur	Wheat	Raj 1482, 3077, 3765, PPW	Raj 1482, 3077, 3765, 4037, 3777, PBW 502, 343, HD 2329, C 306, GW 273, UP 2338, Lok 1, WH 711
Sikar	Wheat	Raj 1482, 3077	C 306, Raj 3077, 3765, 1482, WH 147, GW 173, PBW 343, 373, UP 2338
Sri Ganganagar	Pulses	Moth: RMO 40 Mung: SML 668 Gram: RSG 888	NA
Churu	Pulses	Moth: RMO 40 Mung: SML 668	Moth: RMO 40 Mung: SML 668 Gram: GNG 663
Kota	Pulses	Gram: D yellow Urd: T 9	Gram: D yellow, GNG 663, 469 Urd: T 9

Chart - 34 shows average quantity of incentivized seed purchased by beneficiary respondents in respective districts. Average calculated on the basis of number of

respondents purchased the seed. It Revealed high interest showed by farmers of Kota and very less interest from Churu with respect to pulses while high interest from Nagaur and low interest from Bhilwara but nothing could be interpreted from these data as these were based on very few samples and among pulses seed rate varies from crop to crop.

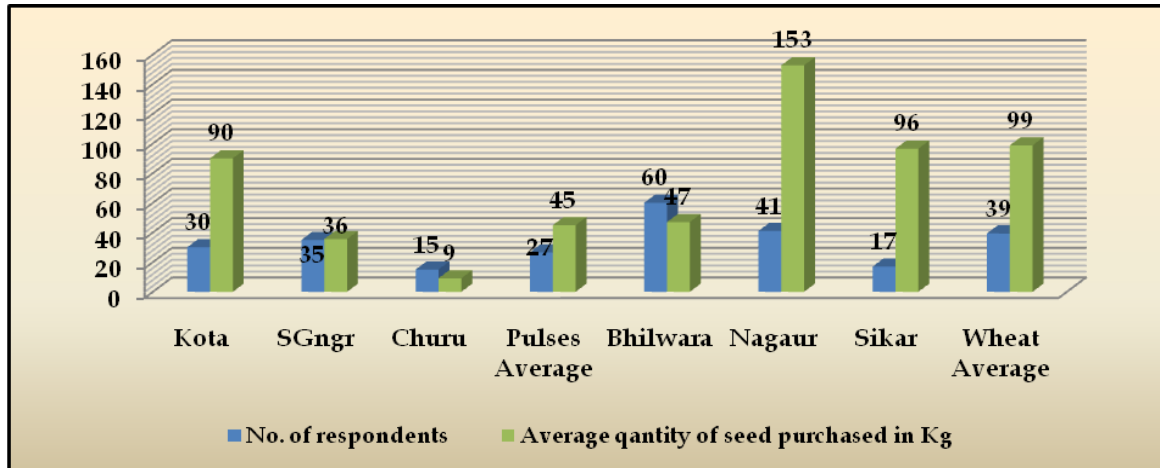


Chart 34: average quantity of incentivized seed purchased by beneficiary respondents

- **Supply of seed of same cultivar to the same beneficiary during the previous years**

All respondent beneficiaries told that they have not taken the seed under this scheme in successive years and same has been confirmed by DoA officials also that preferably they provide this facility to those farmers who had not availed the benefit in previous year.

- **Source of seed & price paid**

Following table and chart shows difference of cost of seed to farmer made available under incentivized supply from NFSM in comparison to market rate. It shows that in open market, seeds were available at much higher cost than the mission which was on an average, 186 percent and 158 percent higher in Pulses and Wheat, respectively.

Table 19: Source of seed and price paid by respondents in study districts

Crop	District	No. of respondents	Average quantity of seed purchased in kg	Cost ₹/kg	Market Price ₹/kg	% difference in cost
Pulses	Kota	30	90	13.0	33.7	260
Pulses	SGNR	35	36	39.8	77.7	195
Pulses	Churu	15	9	37.7	56.4	150
	Pulses	27	45	30.1	55.9	186

	Average					
Wheat	Bhilwara	60	47	18.4	22.7	124
Wheat	Nagaur	41	153	14.0	29.3	209
Wheat	Sikar	17	96	12.9	19.5	151
	Wheat Average	39	99	15.1	23.8	158

Source of seed under NFSM are a mix of government and private organizations like NSC, RSSC, Cooperative societies, GSS, KVSS and private dealers which are registered at respective district agriculture offices.

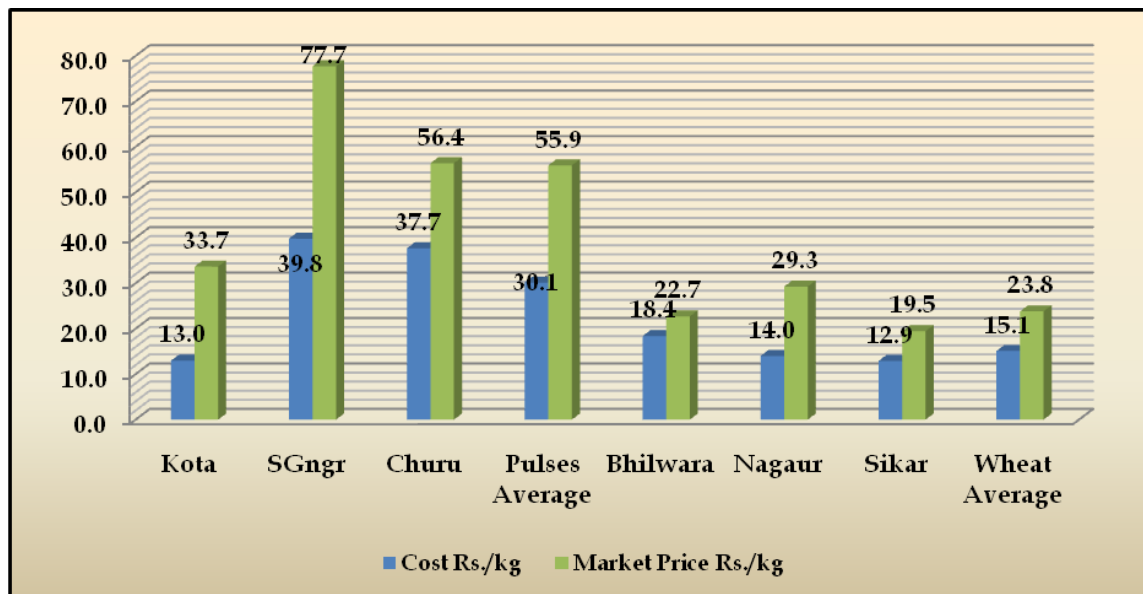


Chart 35: Comparison between average cost under NFSM and market price of seed in study districts

- **Timeliness of seed availability**

Chart - 36 shows percent of beneficiary respondents who received the seed on time in the respective season which reveals that Except Sikar district, Seed was made available to farmers before sowing time whereas in Nagaur district 100 percent respondents received the same on time. Reason of delay in some cases as said by DoA officials, was delay from source of seeds.

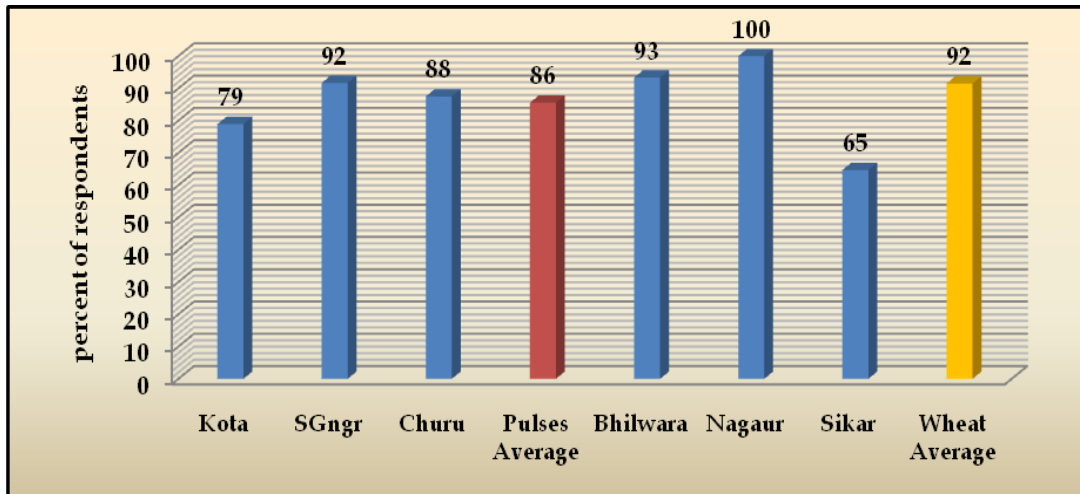


Chart 36: Respondents who received the seed on time in study districts

- **Area sown**

Chart - 37 shows average area in hectares for which beneficiary respondents purchased incentivized seeds under NFSM. Here, average area for pulses was one hectare whereas for wheat it was 0.7 hectares only.

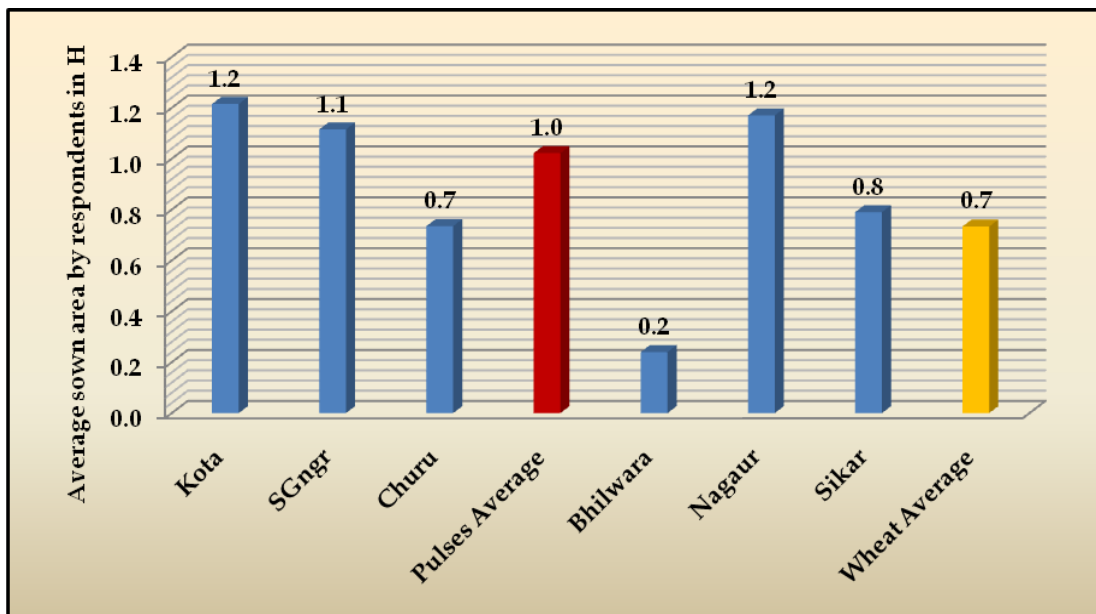


Chart 37: Average area for which beneficiary respondents purchased incentivized seeds

Total area sown in respective districts under NFSM is as shown in below Chart - 38 for Pulses:

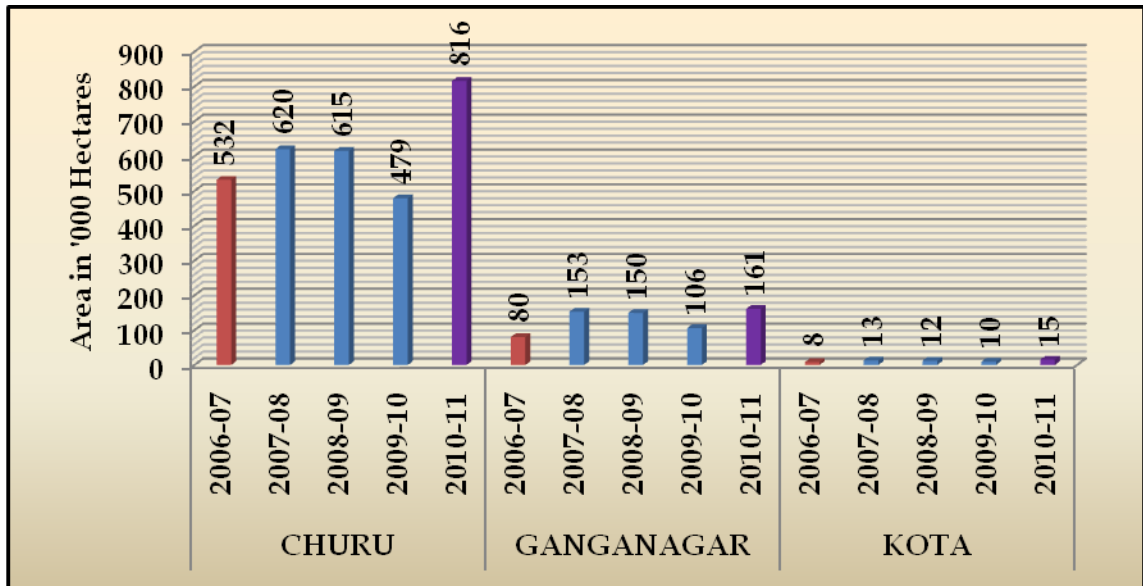


Chart 38: Year wise total area sown in respective districts under NFSM for Pulses

Total area sown in respective districts under NFSM is as shown in below Chart - 39 for wheat:

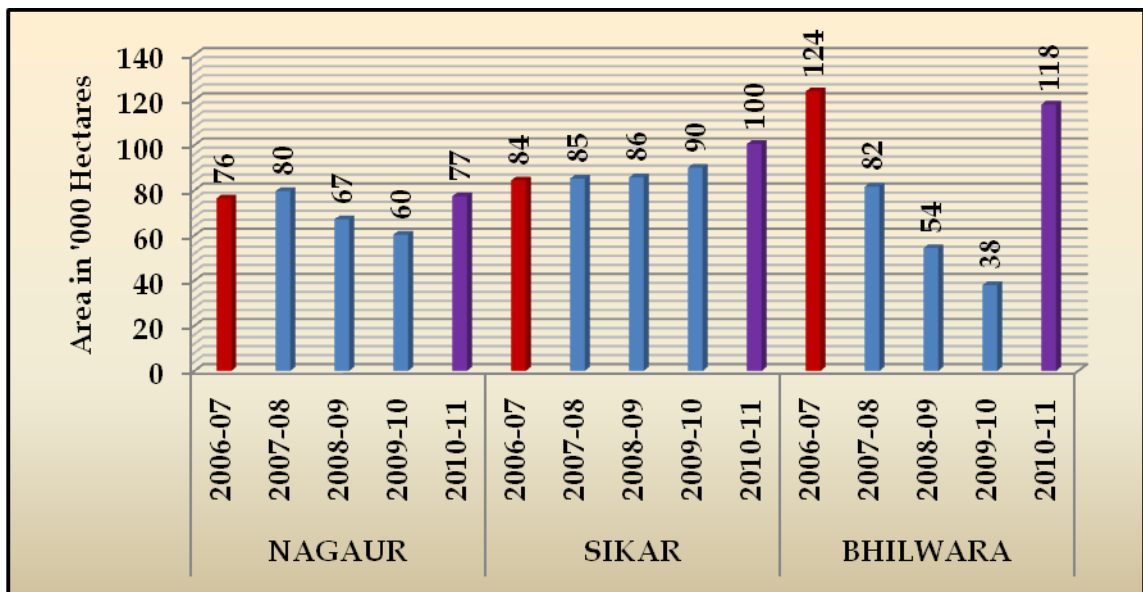


Chart 39: Year wise total area sown in respective districts under NFSM for Wheat

- **Germination**

Chart - 40 shows percent of respondents satisfied with germination of seed supplied under NFSM. About 66% of the respondent informed that seed germination was good, while more than 25 % respondent said that germination was average. There were only 9 percent cases found where germination was poor. Good germination performance was found in seed supplied in Nagaur (Wheat) followed by Churu and Kota while poor germination performance of seed observed in district Sikar (wheat) where it was 35 percent.

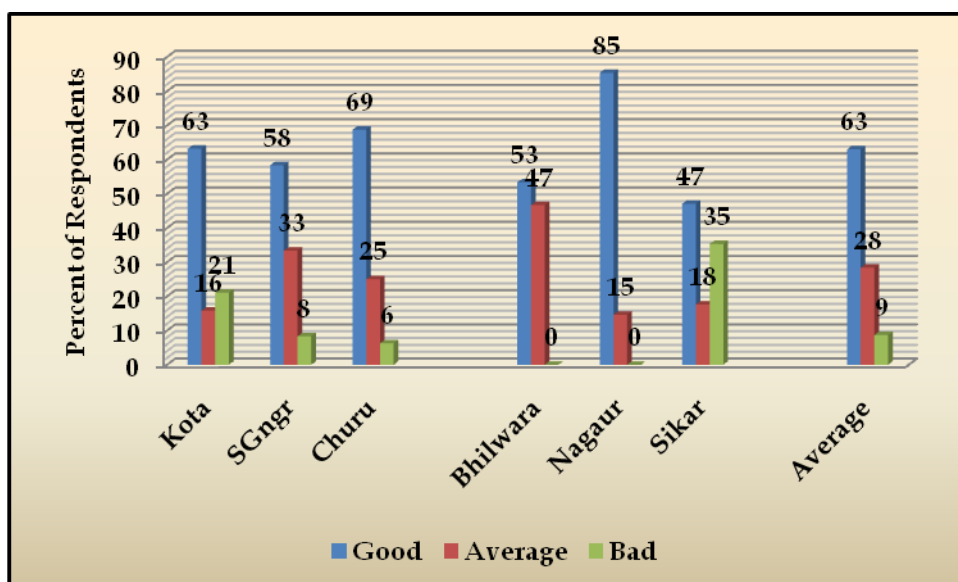


Chart 40: Respondents satisfied with germination of seed supplied under NFSM in study districts

- **Yield advantage of the new variety in comparison to farmer's practice**

Productivity under NFSM area vis-à-vis Control area and district average has been shown in Chart - 41. It clearly showed impact of NFSM activities in average yield of respondents over both control and district average. In case of Sikar, productivity of respondents was low for which both farmers and DoA officials said that major reason was frost during pod formation and high temperature during pod filling. District average taken under consideration is of FY 2009-10.

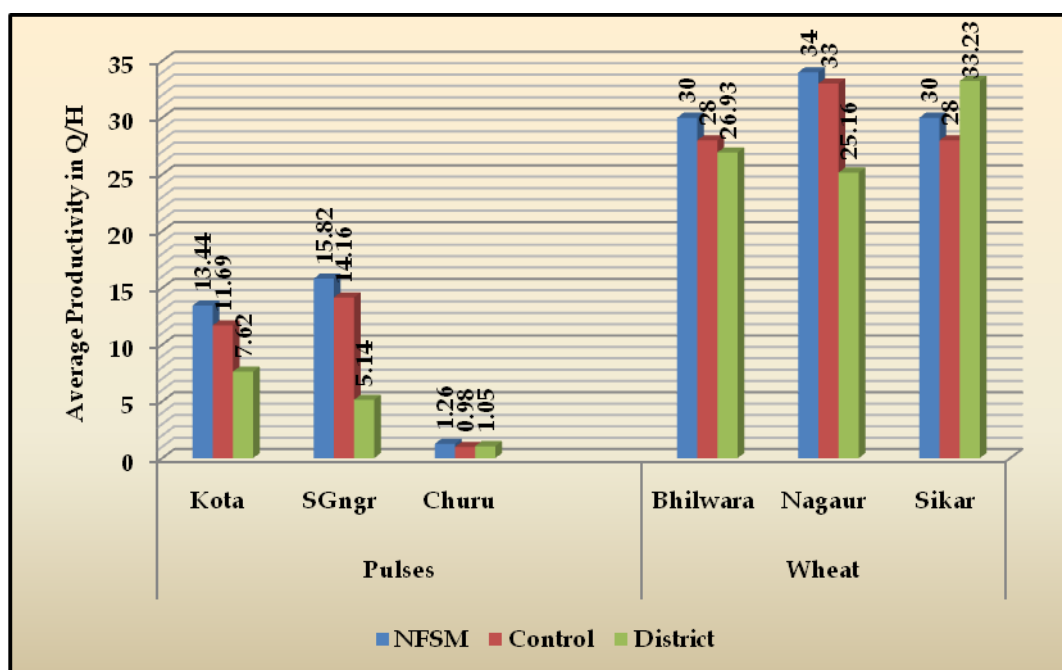


Chart 41: Productivity comparison of respondent's field with control plot and district average

- **Feedback on further adoption**



Feedback of respondents was very interesting and 86 respondents showed interest to sow the same cultivar in next season also.

5.4 Seed Minikit Program

- **Timeliness of distribution**

80 percent of respondents, who were benefitted under minikit activity of NFSM, were satisfied with distribution time of the minikit and said that it was made available before sowing season.

- **Supply of seed minikit of same cultivar to the same beneficiary during the previous years**

There was no beneficiary respondent found who received the minikit in two or more consecutive years and same was confirmed by DoA officials also that they always preferred to benefit new farmer for this activity.

- **Size & contribution of minikit**

Size of minikit was 10 kg wheat seed to all respondents and no one paid any money against receiving of the same.

- **Minikit variety**

Varieties received in minikit were Raj 1482, Raj 4037 and Raj 3077 across districts.

- **Condition of distributed minikit**

Condition of minikits distributed to respondents was satisfactory and found in good condition. One fifth of respondents told that label was tagged on minikit but no one kept the same safe. They also told that weight was according to what printed on the minikit.

- **Dissemination of information related to package of practices in the form of leaflets**

No respondent found any information related package of practices with or on minikits. They said that concern official of DoA disseminated the recommendations regarding practices to be followed but no information received in black & white.

- **Perception on germination**

Seed quality measured by germination percentage. In case of minikit distributed to respondent beneficiaries, all showed satisfaction and told that germination was good.

- **Performance of minikit variety in comparison to farmer's variety**

Chart - 42 shows performance of minikit received by respondents under NFSM vis-à-vis control plot and district average. It revealed that on an average minikit

performance was better than both control plots and district average. Here, it may be mentioned that in Bhilwara district no respondent found for minikit activity, hence average was calculated on the basis of two districts only.

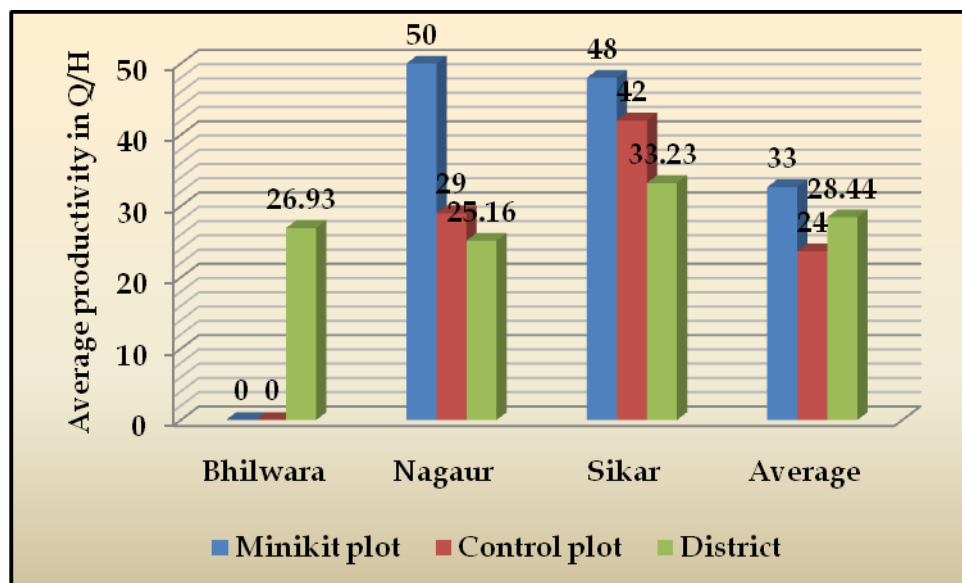


Chart 42: Productivity comparison of mini-kit plot with control plot and district average

- Feedback on future adoption - 80 percent of respondent beneficiary showed interest to adopt of same variety in future while 20 percent showed disinterest due to water deficiency at their farm.

5.5 INM and soil amelioration program

- **Soil testing**

Chart - 43 shows situation of soil testing and soil health cards with beneficiary respondents under NFSM across study districts. It reveals that Kota is only district where soil testing carried out for cent percent respondents and soil health cards were also made available. In Sri Ganganagar also soil was tested for nutrients in cent percent cases but pH was tested in 86 percent cases only. Churu district was at bottom side with respect to soil testing and no respondent got their soil tested for pH and soil health cards were also not given to respondents.

On an average half of the respondents got their soil tested for nutrients and pH while only one fourth respondents got soil health cards.

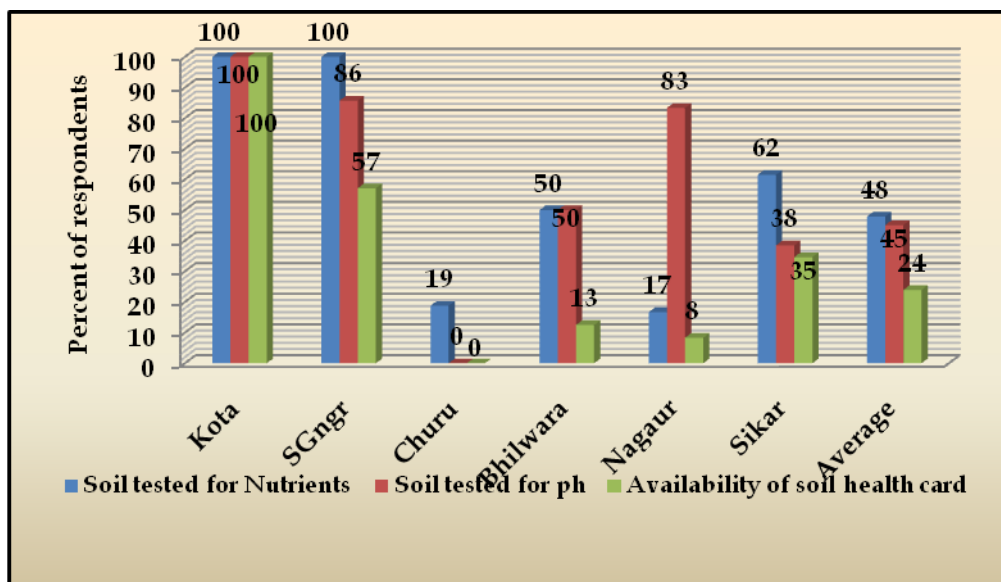


Chart 43: Soil testing and soil health cards with respondents in study districts

- **Method of application of micro nutrients**

Methods of micro nutrient application chosen were based on recommendation of DoA officials and respondents used both foliar spray and soil application methods.

- **Variation in market rate and incentivized supply rate**

Difference between rates of micro-nutrients provided under NFSM and market price was significant across study districts and given in Table - 20 below:

Table 20: Rate comparison of micronutrients between NFSM and open market

Name of nutrient	Cost under NFSM (₹/kg)	Average Market price (₹/kg)
Zinc Sulphate	25	36
Gypsum	0.78	1.65
Ferrous Sulphate	22	30

- **Farmer's feedback on quality/efficacy of INM/micronutrients application in terms of yield**

Overall feed back towards quality and efficacy of micronutrients and Gypsum/ lime was good from all respondent beneficiaries and all were satisfied with the yield improvement by application of these nutrients.

5.6 Farm mechanization

- **Details of implements purchased**

Table - 21 shows number of farm implements purchased through incentivized supply under NFSM by beneficiary respondents in respective study districts.

Table 21: Detail of farm implements purchased by respondents in study districts.

District	Seed drill	Rota vator	Knap sack Sprayer	Store bin	Culti vator	Chisel Plough	disk harrow	MB Plough	Tractor mounted sprayer	Sprinkler set	Total
Kota	22	0	6	0	0	0	0	0	0	18	46
SGNR	10	2	0	0	0	3	2	2	1	0	20
Churu	5	0	11	12	0	0	0	0	0	5	33
Bhilwara	0	0	16	0	0	0	0	0	0	0	16
Nagaur	9	0	3	0	0	0	0	0	0	0	12
Sikar	5	0	3	0	1	0	0	0	0	30	39
Total	51	2	39	12	1	3	2	2	1	53	166

- **Training on use of implements-** Any formal training on uses of any implement was not received by any beneficiary respondents. They were either already aware of uses of received implements or learnt the same through other farmers or by the supplier.

5.7 IPM in pulses

There were only six respondents found in district Churu who were benefited by incentivized supply of bio-pesticides and plant protection chemicals under NFSM.

- **Area affected by insect pests/disease**

Average area affected by insect pests/ diseases was 4.5 hectares.

- **Contiguity of treated area**

Average nearby affected area as depicted by respondents was 6 hectares only.

- **Extent of assistance received with respect to area**

Assistance received under NFSM was for 1.7 hectares only out of total 4.5 hectares affected area.

- **Effectiveness of pest control measures in terms of yield improvement**

In treated field average yield was 9.9 quintal per hectare in comparison to control plot where yield was 6.4 quintal only. It shows a clear difference of 54 percent in total yield per hectare.

- **Training on method & dose of application**

One FFS and one field day were organized for this purpose which fulfilled farmer's need in knowing the method and dose of application of pesticides.



- **Disease symptoms and awareness on source of chemicals / bio-control agents**
Cent percent respondents identified attack of pests/ diseases at their own and informed to DoA officials, although they were not fully aware about name of the pest/ diseases.
- **Variation in the market rate and incentivized supply rate**
Average rate of chemicals purchased under incentivized supply was found `390/- per hectare only while as per respondents actual market price of similar chemicals was approximate ` 780/ per ha.
- **Farmer's feedback on quality of inputs**
Cent percent respondents were satisfied with quality of pesticides and scored them as good.
- **Farmer's feedback on the efficacy of IPM in pulses/Bio-pesticides application in terms of yield**
Farmer's overall feedback was good but they told that quantity given under incentivized supply was very limited which should be increased to get more benefit out of it.

5.8 Pilot Project

5.8.1 Blue bull control

In Rajasthan, pilot project on blue bull control has not been initiated yet.

5.8.2 Community generator

In Rajasthan, pilot project on community generator has not been initiated yet.

5.9 Local Initiatives

- In Nagaur district, thio-urea was used as foliar spray to enhance crop productivity by DoA but respondent under this study were not aware of this. In other study districts, no such initiative was observed. Although data obtained from DoA defines that this initiative was taken in all Wheat districts under NFSM and observed very good response from farmers towards adopting it because of increased yield.
- Incentivized supply of Chemicals was received by respondents for seed treatment, weed control and termite control but as it was decided at state level only, respondents were not known that it is a local initiative, although were happy to receive the benefits.

- An overwhelming response received to incentivized supply of some farm equipments such as Multi crop thresher, Tractor mounted sprayers, Duster, Disc plough, Tractor operated reaper, Seed storage bin, etc.

5.10 Non-Beneficiary

In order to ascertain the reach of the mission, the feedback of non-beneficiaries was taken on following aspects

- **Assessment of level of awareness on mission activities** - In most of cases respondents were not known NFSM by its name but they were quite aware by its activities. Chart - 44 shows on an average 59 percent level of awareness towards its activities in both pulses and wheat districts. Where highest level of awareness found among respondents of Kota district followed by Churu; lowest was in Nagaur (33% only).

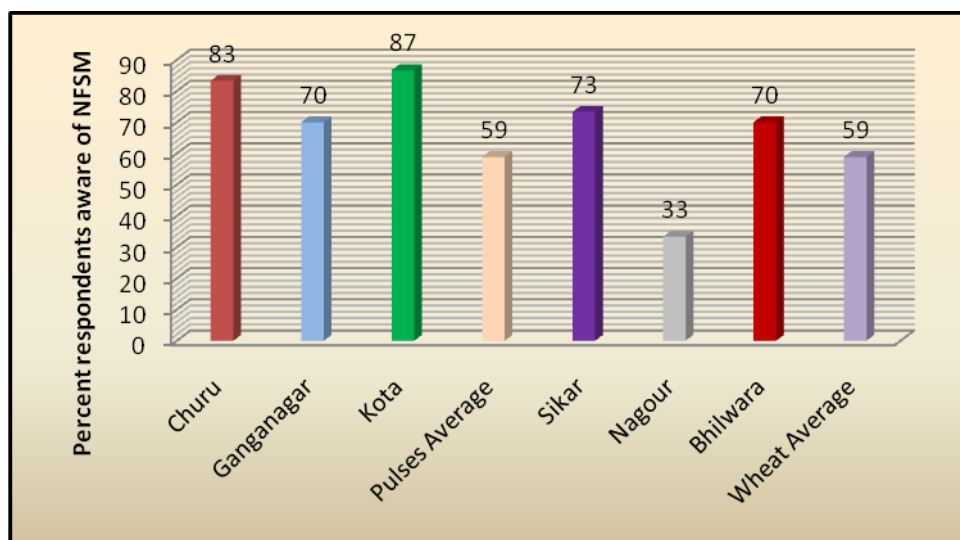


Chart 44: Non-beneficiary aware of NFSM

It was also tried to examine in the study that how respondents got information or awareness about these activities which presented in Chart - 45. It shows that most of respondents were aware about NFSM activities through other farmers which mean verbal communication by beneficiary farmers under NFSM. A mixed response was obtained for other source of information like print, electronic media, training or other. In Nagaur and Sri Ganganagar districts media was a strong source while in Kota district trainings was also a major source of awareness about NFSM activities.

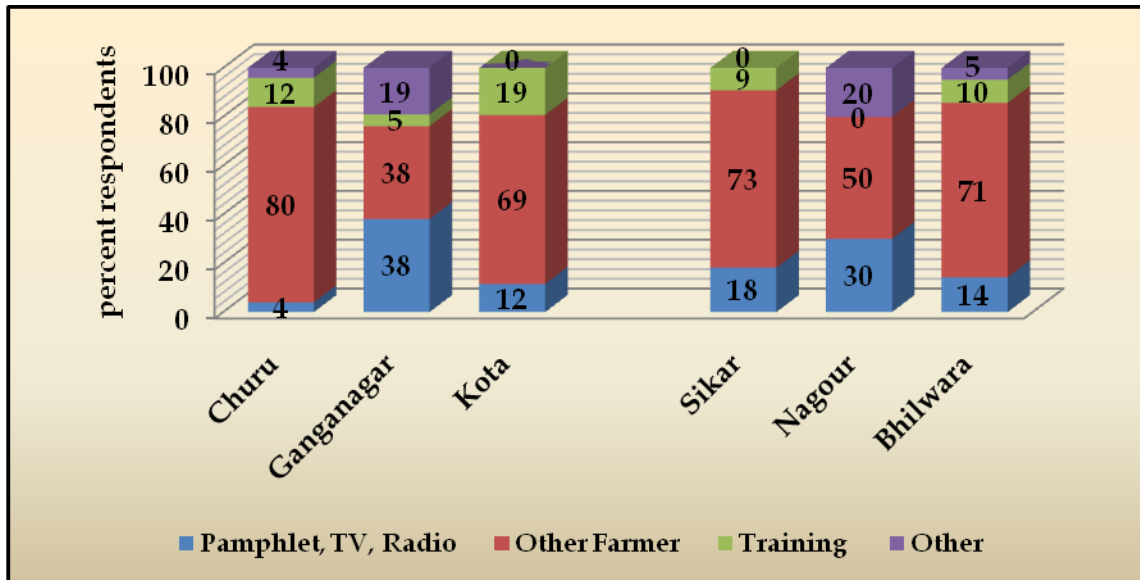


Chart 45: Source of information about NFSM

- Willingness to participate under NFSM by non-beneficiary was also considered under this study and below Chart shows that in study districts for pulses, almost all respondents were willing to get benefitted through NFSM activities while in study districts for wheat percentage was below except Nagaur. Very unusual response was found in Sikar and Bhilwara districts where awareness about NFSM activities was quite high and respondents were unable to tell any specific reason behind noninterest towards NFSM except that either they were already getting these facilities under other schemes from DoA or they were unable to utilize these services because of shortage of irrigation water.

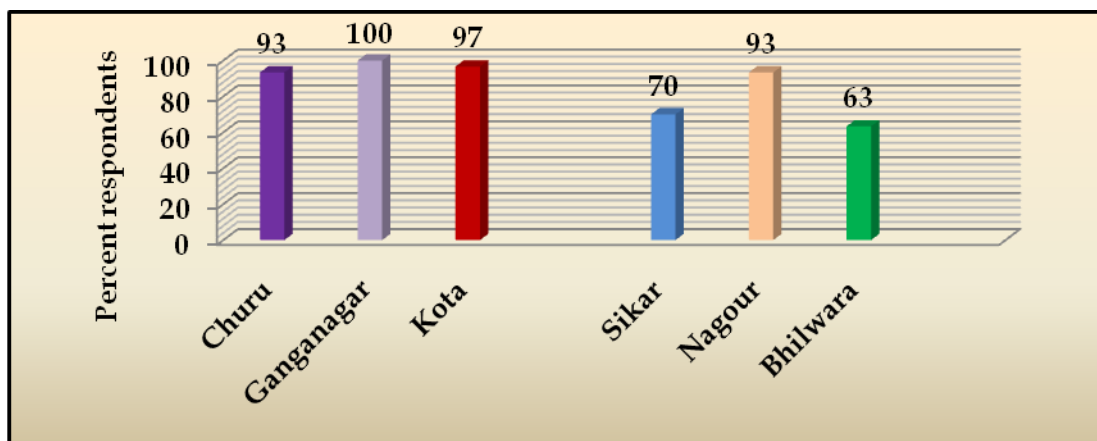


Chart 46: Non-beneficiary willing for NFSM interventions

- Preference of activity for availing the benefits has been presented in the below Chart which shows number of activities respondents wish to avail given a chance to them. About one third of respondents showed interest for incentivized supply of improved seeds as it was considered major factor for improved yield. At

second preference, seed drill was opted by one fourth of total respondents which save time and money for sowing the seed. More than one tenth of respondent's preference was for saving of irrigation water by availing sprinkler sets (11 percent) and diesel pumps (6 percent) while 8 percent given preference to pilot projects to save their crop from Blue bull.

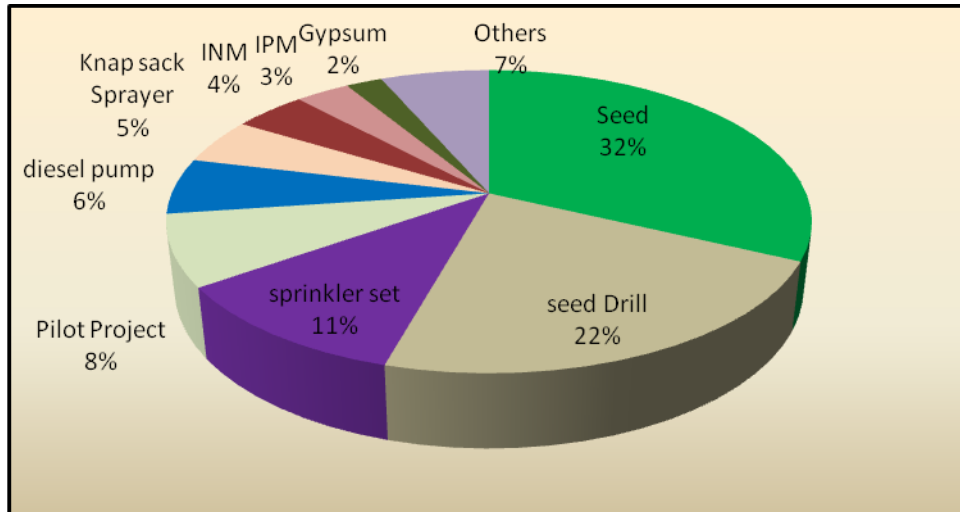


Chart 47: Preference of NFSM activity by Non-beneficiaries

CHAPTER - 6

Constraints analysis

6.1 Financial constraints

As far as financial issues are concerned, there was no constraint either at state or district level. For each activity under NFSM, sufficient fund was available as per the target set. Sometimes district level functionary faced problem in payment to suppliers as their cheque amount entitlement was limited which leads to enhance procedural delays.

6.2 Administrative constraints

Major constraints in implementation of NFSM observed from administrative side at both state and district as well as field level, some of which are analyzed as below:

- a. **Insufficient manpower** - major constraint associated not only with NFSM but with any agriculture based program is insufficient manpower. At state level, Joint Director (Water utilization), Agriculture is having additional responsibility of NFSM and at district level respective Deputy Director, Agriculture has additionally responsible for NFSM. Expansion of physical and financial outlay of routine work in DoA is itself very vast and department facing problem of staff shortage.
- b. **Complex Procedure** - To avail benefit of any component of the scheme farmer has to pass a complex procedure with lot of papers like Khasra, etc. and that many of illiterate farmers cant pass such complex procedure therefore, only smart farmers get benefit of scheme particularly in agricultural implements.
- c. **Political interference** - Lot of local leader exerted pressure on field staff to give benefits of minikits, pesticide and other components to them or to their peer group. It leads to create problem for DoA staff with regard to following guideline as well as it creates dissatisfaction among other farmers towards mission and the provoked.
- d. **Lack of coordination** - According to guideline of NFSM, apart from DoA, various other departments and agencies were involved in implementation of its various activities but considered by other agencies that it was responsibility of DoA only. Lack of coordination between DoA and other agencies leads to failing of planned activities with respect to timeliness and fulfillment of activity specific objectives.
- e. **Monitoring** - Monitoring of field activities is not as per NFSM need, although major constraint in it is extra work load on district officers. Annual action plan for execution of mission activities carried out efficiently but field inspection part needs improvement. Due to lack of field inspections, proper monitoring of activities were not possible and chances of autonomy of lower level staff increased.



f. **Mobility** - In few cases, lack of mobility of officers also observed due to limited availability of vehicles which affected optimum monitoring of field activities.

6.3 Technical constraints

a. **Manpower technical efficiency:** Although most of Agriculture supervisors are working since long time in the department and now having good field experience but even though understanding many specific technicalities is not possible for them as they are educationally under qualified.

b. **High-Tech monitoring** - Procedural lay out for monitoring of NFSM at all three tiers viz. district, state and national was excellent and if adopted as per plan, no one need to ask for any report at any point of time for any area. But, the staffs who were implementing the mission at district level and given responsibility of uploading the relevant data on website were not well trained and well equipped for this purpose. Online data entry by Technical Assistants is very tedious job due to two reasons, first, they were not well trained for these data entry and second, they did not find time for it as they are already overloaded with routine and additional work.

c. **Lack of awareness building** - It was observed everywhere in study districts that few farmers were aware about NFSM by its name. It showed complete lack of awareness among farmers due to very limited advertisement. What farmers knew that they would get subsidy from DoA on different components. Lack of optimum advertisement activities failed to create awareness among farmer community which ultimately leads to non-fulfillment of mission's primary objective of expansion of area and productivity enhancement.

d. **Twofold benefits** - The districts which were selected for both wheat and pulse programme under NFSM; smart farmers got benefit on both crops for same component. It gave double benefit to some farmers while other farmers were deprived of these benefits.

e. **Small land size uses under pulse crop** - A large number of farmers cultivated pulses in very limited area, even less than 1/20th hectare to fulfill their home consumption. Due to fixed size pack of incentivized seed supply, they were unable to be benefited of certified seeds and they showed their own seed particularly in Kharif season. DoA officials could not select such beneficiaries as laid in guidelines due to which certified seed was unutilized.

f. **Demonstrations:** In each selected village, very limited number (only 2-3) demonstrations were given which did not generate sufficient effect to percolate the technology in a village due to many internal factors like distance, caste, peer group,



suitable time for demo meeting, etc. and external factors like if one demo fails due to any reason then farmers would have to wait for full one year for next demo.

g. FFS related constraints

Farmers interest - Other than NFSM, other agriculture based schemes like RKVY, ISOPAM, etc. also having provision of FFS. In villages, most of farmers do not wish to attend these FFS due to various reasons like repetition of same lectures under different schemes, lack of innovativeness in lectures which creates interest to target audience, etc.

Availability of experts - Apart from it, target fixed per block for organizing FFS were not in accordance with availability of scientists/technical experts. In most of FFS, agriculture supervisors delivered the lectures who were not at all competent in comparison to technical experts of SAUs/ KVK/ ARS.

CHAPTER - 7

Observation and Recommendations

7.1 Farmers Field Schools

- a. Average targets given to each district for conduct of FFS were not in accordance with availability of technical experts in respective block/ district. Higher number of FFS without technical experts did not generate desired impact and farmers got bored of same lectures delivered by same lecturer.

DoA and associated agencies who had technical experts in respective area like SAUs/ KVKs. ARSs/ NGOs should plan the FFS in coordination and should make a balance between required FFS days and availability of technical experts.

- b. It may be considered that at least fifty percent classes of each FFS must be taken by technical experts other than agriculture supervisors. It will enhance quality of FFS and will deliver better results.
- c. There should be provision of some monetary incentives to Agriculture Supervisor that will give motivation towards organization of FFS.
- d. Literature for FFS must be prepared either at District or at zonal level so that every farmer will get literature at the time of joining the FFS.



- e. FFS participants should be given priority for demonstration, minikit or any other component they need.
- f. Audio-visual aid will create interest in farmers to join FFS and regularly attend the same.

7.2 Demonstrations

Demonstration was only one component under NFSM which showed complete package of practices from sowing to harvesting and farmers actually could see effect of improved practices and inputs. In Rajasthan, only half of the beneficiaries of demonstration got their farm soil tested and like wise only half got detailed information on package of practices. Only 18 percent demo plots were having display board, although it was mandatory. In line with above, again, only half of the total demonstration plots got covered with field days which were very crucial exercise to show results of the demo.

Demonstrations should be planned out in a way that all farmers should benefit from these. For this purpose, more number of demos should be laid out per village to extend reach of new technology to maximum farmers.

7.3 Seed distribution

State lagged behind its target of seed distribution of wheat crop but exceeded in pulse crops. Quality of seed was found satisfactory but major drawback was timeliness from seed suppliers.

Advanced planning of seed distribution should be made at regional/ district level and agreement for supply should be more focused on local seed growers in stead of dependency on government agencies.

There was no data available related to farmers who availed benefit of same cultivar in previous years. Data management system should be strengthened for which external agency may be hired like Rajasthan Knowledge Corporation Ltd. (a GoR enterprise).

Along with seed, subsidy on seed treatment chemical should also be given to promote seed treatment exercise against soil born pests.

7.4 Seed minikit program

Due to procedural problems between DoA and supplying agencies, some times delivery to farmers got delayed.

Size of minikit is fixed while in different regions need is also different. Some farmers grow Kharif pulses in very limited area as mentioned in constraints while some grows on large scale.

If packing size of Kharif pulse minikits is made available in different sized ranging from smaller size of 2 - 20 kg, many small and marginal farmers could get benefit of improved variety of certified seeds.

Along with minikit, subsidy on seed treatment chemical should also be given to promote seed treatment exercise against soil born diseases.

7.5 INM and Soil amelioration program

As described for demonstration also, half of the farmers did not avail benefit of soil testing and only one fourth having soil health cards. Without testing their soil, they never knew about requirement of micro-nutrients and/or gypsum and lime.

More focus should be given on soil testing and soil health cards should be given to each farmer beneficiary. Mobile soil testing laboratory is a good concept already initiated by DoA but its reach out is still limited which should be enhanced.

7.6 Farm mechanization

Farmers took highest interest in incentivized purchasing of farm equipments as they become their assets. Major political pressure regarding selection of beneficiary also comes in this component. Here, a case of double benefits also arised as described in constraints and single farmer got same benefit for both crops. It was observed that farmers got required implement on subsidy but never trained to operate the same.

Beneficiary selection should have been in accordance with guidelines only. Provision of formal training needs to be incorporated in mission for farmers who have purchased the implement and wished to get trained.

Pulse production can be increased by two ways i.e. increase in area and increase in production. Therefore, intercropping seed drill should be provided. Particularly in maize and sorghum belt it will surely increase area of pulses.



7.7 IPM in pulses

Real concept of INTEGRATED Pest Management (IPM) is yet to be expanded up to real beneficiaries i.e. farmers. Incentives has been given for purchase of bio-pesticides, Pheromone traps as well as plant protection chemicals but limited knowledge of lower level field staff could not deliver required benefits of IPM.

More FFS should be planned specifically for IPM and exposure visits of some active farmers should be planned to area/ fields where IPM is being implemented in real sense i.e. combination of all type of pest control measures.

7.8 Pilot project

Pilot project of both blue bull control and community generator has not yet been initiated in any district of the state. Upon discussion with both beneficiary and non-beneficiary farmers of NFSM, it was observed that in all districts blue bull was a serious problem for farming and caused significant loss to farming community. Concept of community generator also appreciated by both farmers and DoA field staff but given their inputs that it required proper management and coordination between users of respective generator.

Both pilot projects are on high demand among farmers and should be launched in all NFSM districts.

7.9 Local Initiatives

Only one local initiative has been taken i.e. foliar spray of thio-urea in wheat crop during FY 2009-10 while in FY 2010-11 incentivized supplies of chemicals for seed treatment and Weed & Termite control was also initiated. These local initiatives have been taken up at state level in consultation with district representatives. But here local means specific area/ district and initiatives should have been taken at district level.

Local initiatives should be taken at district level on the basis of need based survey among farming community.

7.10 Other

Manpower - Both quantity and quality of personnels engaged in the mission should be enhanced. At lower field level, qualified staff may be hired on contractual basis while at higher level dedicated staff should be engaged for proper monitoring of the project.



MIS -: Management information system need to be strengthened for timely data entry and report generation which could lead to better planning and implementation of mission in succeeding years.

Technically efficient manpower - For improvement of the knowledge of the field staff, periodical refresher training courses should be organized.

Simplification of procedure - Procedure should be simplified for poor farmers. An online submission of the application on e-Kiosk/e-mitra may be adopted and there after field staff could complete rest of the procedure.

Political interference - To avoid the political interference; norms should be set and strictly followed for minikits and demonstration plots.

Area of expanse - Objective of the mission is to increase both area and productivity of selected crops. Comparison made on both criteria with base year of mission launch, shows very positive effect in last four years.

Instead of extending services of NFSM in large area, limited number of villages should be selected with intensive and quality work along with proper monitoring.

Awareness building - currently advertisements are given in both print and e-media but in very limited numbers.

Frequency of advertisements should be increased in both media as well as local level awareness building program should be launched with help of reputed NGOs of respective districts.

Literature - Climatic zone/ sub-zone wise customized literature for package of practices of both crops should be distributed in enough quantity at regional/ district level to distribute to farmers.

Benefit of these literatures could be enjoyed by educated person only and students are the most educated group available in villages. These literatures should also be distributed in schools to students of class 9th to 12th who can read and transfer to their parents in local dialects.



PHYSICAL AND FINANCIAL PROGRESS OF NFSM - WHEAT 2010-11

Progress Report for the month December, 2010

State/District

(Fin. Rs.in lacs)

S.No	Interventions	Approved Rate of Assistance	Unit	Target Approved by GOI		Achievements made during the month		Cumulative achievements	
				Phy.	Fin.	Phy.	Fin.	Phy.	Fin.
1	Demonstrations on improved Package of Practices	Rs. 2000/- per Demons.	Nos.						
2	Increase in SRR (Seed Distribution)	Rs. 500/- per Qtl.	Qtl.						
3	Distribution of Seed Minikits of HYVs of Wheat (10 Kg each)	Full Cost	Nos.						
4	Incentive for Micro-nutrients	Rs. 500/- per ha or in proportion to Gypsum	ha.						
5	Incentive for Gypsum (Salt affected soils)	Rs. 500/- per ha or in proportion to Micro-nutrients	ha.						
6	Incentive on Knap Sack Sprayer	Rs. 3000/- per Machine	Nos.						
7	Incentive on Seed Drills/Seed cum Fertilizer Drill	Rs. 15000/- per Machine	Nos.						
8	Incentive on Rotavators	Rs. 30000/- per Machine	Nos.						
9	Farmers Trainings. (One FFS at every 1000 ha)	Rs. 17000/- per training	Nos.						
10	Award for Best Performing District	Rs. 5 Lakh per year	Nos.						
11	Miscellaneous Expenses:-								
	(a) Project Management Team & Other Misc. Expenses at District Level	Rs. 6.36 Lakh per district	No, of Distts.						
	(b) Project Management Team & Other Misc. Expenses at State Level	Rs. 13.87 Lakh per State	No, of State						
12	Local Initiatives (Activity-wise)								
	Seed treatment, Weed control & Termite control	Rs. 1000/- per ha..	Nos.						
	Total financial (1-12)								
