

Progress and Performance of States in Promotion of Farmer Producer Organisations in India

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ABSTRACT

There has been a substantial increase in the performance of Farmers Producer Organizations (FPOs). However, the growth of FPOs across the states and regions in India has not been uniform. Therefore, an in-depth analysis was taken up (a) to examine the status and growth of Farmer Producer Organizations across states and regions in India, and (b) to examine the performance of Farmer Producer Organizations and to suggest measures to improve it. The study used discriminant function analysis to examine the factors influencing the performance of states. The findings indicated that more than 50% of total mobilised farmers belonging to four states namely Karnataka, Madhya Pradesh, Tamil Nadu and West Bengal. The highest number of promoting institutions have found in Karnataka (85) constituting about 8.9 % of the total promoting agencies functioning in the country. The number of FPOs promoting institutions per gross cropped area, ease of doing business, number of markets, KCC per operational holding and rural literacy are significant factors having bearing on the performance of the states

Keywords: Former produce organizations

INTRODUCTION

Agriculture plays a pivotal role in developing economies. Small and marginal farmers account for 85 per cent of the total operational land holdings in India (Agriculture census, 2011). The small farmers with weak bargaining powers suffer from greater dependency in the cultivation and monopolistic exploitation under formal contracts (Bachke, 2009). To minimize the gap between the farmers and consumers, Government of India aimed at new institutional options which can provide the farmers, a level playing field to compete in the modern agro-food networks. With the recommendations of Y K Alagh Committee in 2001, amendments were brought to the Companies Act, 1956 which paved the way for the concept of 'Producer Companies' (PC). PC can increase the skills, revenue and bargaining power of

the smallholder farmers in the production and marketing of the produce. They disseminate technical knowledge to its beneficiaries, improve their production efficiency, reduce the transaction costs, market the final produce and are even successful in capacity building thereby, fabricating the social capital. In the era of globalization and climate change, producer organizations are regarded as the only institutional option to safeguard the best interest of the farmers and facilitate them to reach a higher level of profits through novel agro-food networks (Trebbin and Hassler, 2012). SFAC is the nodal agency coordinate the between the states and single window for the technical advice and investment needs. Producer Organization Development Fund (PODF) has been created by NABARD to specially promote the FPOs which lies outside the ambit of SFAC. As a

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major reform, GOI has announced cent percent tax holiday for all the FPOs below 100 crores up to five years. Producer organizations can evolve as a major step toward doubling the farm income. Keeping the above issues in the consideration, the study is undertaken for evaluation of FPOs with following specific objectives: (a) To examine the status and growth of Farmer Producer Organizations across states and regions in India, and (b) To examine the performance of Farmer Producer Organizations and to suggest measures to improve it.

METHODOLOGY

The data regarding the number of FPOs registered in the country, number of farmers linked to FPOs, and different schemes promoting the growth of FPOs were collected from Small Farmers' Agribusiness Consortium (SFAC) and National Bank for Agriculture and Rural Development (NABARD) (GoI 2018a; GoI 2018b). The data on ease of doing business was compiled from Business Action Plan 2017 (GoI 2017). The data on KCC, number of agricultural markets, gross cropped area and number of operational holding was obtained from Agricultural statistics at a glance (GoI, 2016).

Discriminant function analysis

To analyse performance of FPOs, the study employed discriminant function analysis that enables to analyse the gap between the high and low performing states with respect to functioning of the FPOs.

The model (Gwary *et al.* 2012) used is as follows:

$$Y = D_i X_i \quad \dots (1)$$

Where 'Y' serves as a discriminant value for classification. D_i are the unknown weights assigned to different characteristics. X_i are the FPOs promoting institutions (No. /000ha gross cropped area), *Kisan* credit card per operational holding, rural literacy rate, ease of doing business and markets (No. /000 gross cropped area) were selected to classify the states into either high performing or low performing groups. The

'D' coefficients are calculated by $d_i / \sqrt{s_{ii}}$ ($i= 1, 2, 5$) with d_i being the distance between the means of the two groups, good and bad performers, for the i^{th} character and s_{ii} being the pooled variance from the two groups for the i^{th} character.

Then Y. values are computed for groups, $j=1 \& 2$

$$Y_j = \sum_{i=1}^5 D_i X_{ji} \dots \dots \text{(for group } j = 1 \& 2) \quad \dots (2)$$

Where X_{ji} are considered as their respective mean levels. Next, the discriminatory or criterion value Y is calculated as:

$$\bar{Y} = \frac{\bar{Y}_1 + \bar{Y}_2}{2} \quad \dots (3)$$

Finally, for each state, the classificatory Y values were calculated as:

$$Y_1 = \sum_{i=1}^p D_i X_{1i} \quad \dots (4)$$

Where X_{1i} 's are the observed values of the parameter of the state. If the individual 'Y₁' value is less than Y value, the state is classified in group 1 i.e., low performing state. If 'Y₁' value is more than 'Y' value, the state is classified in group 2, i.e., high performing state.

RESULTS AND DISCUSSION

Status of FPOs

As shown in table 1, the number of farmers mobilised towards FPOs are highest in Karnataka with 1,76,133 farmer members. More than 50% of total mobilised farmers belong to four states namely Karnataka, Madhya Pradesh, Tamil Nadu and West Bengal. Karnataka also has the largest number of FPOs i.e. 303 out of total 2816 accounting for 10.7% of the total FPOs registered in the country. The state-wise analysis shows that 740 FPOs are promoted and a total of 733658 farmers were linked to FPOs by SFAC and 2076 FPOs are promoted and a total of 588127 farmers were linked to FPOs by NABARD. SFAC promoted the largest number of FPOs in Madhya Pradesh followed by Karnataka with 135 and 117 FPOs respectively. Maximum number of FPOs promoted by NABARD is in Karnataka

Table 1: State-wise progress of FPOs promoted by SFAC and NABARD (As on 30.04.2018)

States	SFAC			NABARD			Total		
	Farmers	FPO	Farmers/FPO	Farmers	FPO	Farmers/FPO	Farmers	FPO	Farmers/FPO
Andhra Pradesh	6792	7	970	30264	106	286	37056	113	328
Arunachal Pradesh	1750	2	875	103	1	103	1853	3	618
Assam	5647	12	471	11956	40	299	17603	52	339
Bihar	25685	24	1070	12427	102	122	38112	126	302
Chhattisgarh	27825	23	1210	22459	57	394	50284	80	629
Gujarat	19166	20	958	34237	115	298	53403	135	396
Haryana	13240	23	576	17143	50	857	30383	73	707
Himachal Pradesh	4887	5	977	5739	54	51	10626	59	129
Jammu & Kashmir	6814	2	3407	1329	12	111	8143	14	582
Jharkhand	10009	8	1251	21286	65	333	31295	73	435
Karnataka	118218	117	1010	57915	186	311	176133	303	581
Kerala	0	0	0	50077	105	477	50077	105	477
Madhya Pradesh	123791	135	917	48681	160	304	172472	295	585
Maharashtra	88948	85	1046	22922	118	194	111870	203	551
Manipur	5671	4	1418	1481	5	296	7152	9	795
Meghalaya	2990	3	997	1409	9	157	4399	12	367
Mizoram	1700	1	1700	3016	15	201	4716	16	295
Odisha	39463	41	963	25857	100	259	65320	141	463
Punjab	6288	7	898	4601	67	69	10889	74	147
Rajasthan	49617	40	1240	29840	143	209	79457	183	434
Sikkim	16279	29	561	645	4	161	16924	33	513
Tamil Nadu	10945	11	995	90543	170	533	101488	181	561
Tripura	2874	4	719	80	1	80	2954	5	591
Uttarakhand	6004	7	858	26144	52	503	32148	59	545
Uttar Pradesh	35746	34	1051	13131	113	116	48877	147	332
West Bengal	72266	68	1063	28156	148	190	100422	216	465
Others	29233	28	1044	26582	76	350	55815	104	537
All India	733658	740	991	588127	2076	283	1321785	2816	469

Source: GoI, 2018a and GoI, 2018b

followed by Tamil Nadu. It is significant to note that the largest number of FPOs is promoted by NABARD but SFAC linked larger number of farmers to FPOs. On the whole, the number of farmers linked to FPOs are highest in Karnataka and is followed by Madhya Pradesh, Maharashtra, Tamil Nadu, West Bengal etc. On an average the SFAC promoted FPOs have larger number of farmers being linked with 991 farmers per FPO than that of NABARD promoted FPO with 283 farmers per FPO. The state wise analysis reveals that Manipur with 795 farmers per FPO is leading and is followed by Haryana (707), Arunachal Pradesh (618), MP (585), Maharashtra (551), etc.

Promoting institutions

Promoting institutions play a crucial role in the formation and functioning of FPOs. During its formative years, they said the FPOs in the documental procedures, mobilise the farmers, provide technical and financial help in the functioning of the organisations. Density of promoting institutions is important for the performance of FPOs in the state. The funding institutions like NABARD and SFAC provide fund support to promoting institutions for enabling them to mobilise farmers and to form FPOs. Table 2 provides the information regarding the promoting institutions which are recognised by NABARD and SFAC. NABARD has recognised

Table 2: State-wise number of promoting institutions involved in formation of FPOs

State/Union Territory	NABARD	SFAC	Total	Percentage
Andaman & Nicobar	1	0	1	0.11
Andhra Pradesh	57	3	60	6.35
Arunachal Pradesh	1	2	3	0.32
Assam	29	12	41	4.34
Bihar	52	4	56	5.93
Chhattisgarh	31	6	37	3.92
Delhi	0	4	4	0.42
Goa	1	2	3	0.32
Gujarat	32	5	37	3.92
Haryana	17	5	22	2.33
Himachal Pradesh	18	2	20	2.12
Jammu & Kashmir	6	1	7	0.74
Jharkhand	36	3	39	4.13
Karnataka	78	7	85	8.99
Kerala	73	0	73	7.72
Madhya Pradesh	38	21	59	6.24
Maharashtra	19	10	29	3.07
Manipur	4	1	5	0.53
Nagaland	0	1	1	0.11
Meghalaya	4	1	5	0.53
Mizoram	7	1	8	0.85
Odisha	34	4	38	4.02
Punjab	9	2	11	1.16
Rajasthan	57	5	62	6.56
Sikkim	4	2	6	0.63
Tamil Nadu	25	4	29	3.07
Telangana	42	5	47	4.97
Tripura	1	2	3	0.32
Uttar Pradesh	77	6	83	8.78
Uttarakhand	36	2	38	4.02
West Bengal	29	4	33	3.49
All India	818	127	945	100

Source: GoI, 2018a and GoI, 2018b

relatively higher number of promoting institutions i.e, 818 while SFAC has recognised 127 promoting institutions accounting for 86.5 % and 13.43 % of the total, respectively.

Highest number of promoting institutions have found in Karnataka (85) constituting about 8.9 % of the total promoting agencies functioning in the country. Karnataka also has the highest number of FPOs registered in the state. It clearly demonstrates

the importance of promoting institutions in formation of FPOs. Other states which have high number promoting institutions are Uttar Pradesh, Kerala, Rajasthan with 8.7, 7.72 and 6.56 % of the total promoting institutions respectively. Andaman & Nicobar and Nagaland showed poor performance in the establishment of promoting institutions with one institution each. NABARD has recognised highest number of promoting institutions in the state of

Karnataka (78) and is followed by Uttar Pradesh (77), Kerala (73), Rajasthan (57), Andhra Pradesh (57), Bihar (52) etc. Similarly, SFAC has recognised highest number of promoting institutions in the state of Madhya Pradesh (21) and is followed by Assam (12), Uttar Pradesh (6) etc.

Factors influencing performance of FPOs

The factors that influence the performance of states was analysed using the linear discriminant function analysis. The states were classified into two groups' i.e., high performing and low performing groups based on the indicator for performance of FPOs as viewed by number of FPOs per agriculture GDP (No./Rs. billions of agriculture GDP) (table 3).

It is observed that many small states like Sikkim, Mizoram, Meghalaya, Manipur and Kerala have emerged among the good performing states. Similarly states like Uttarakhand, Himachal Pradesh, Madhya Pradesh, Karnataka, Odisha and Jharkhand have also emerged as the good performing states, while others fall in the low performing states. The results revealed that five factors were discriminating the states into two groups (table 4). It can be inferred that the number of FPOs promoting institutions per gross cropped area (No./000 ha of GCA) was the significant factor which has high influence in performance of states and which discriminates the states to the extent of 54% of all the variables under study. Further, the variables like KCC per operational

Table 3: Performance of states in promotion of FPOs

States	FPOs (No per Ag GDP, Rs billion)	States	FPOs (No per Ag GDP in Rs billion)
Low performing states		High performing states	
Tripura	0.14	Sikkim	8.27
Jammu & Kashmir	0.16	Mizoram	1.53
Uttar Pradesh	0.16	Uttarakhand	0.94
Arunachal Pradesh	0.20	Himachal Pradesh	0.80
Goa	0.20	Madhya Pradesh	0.74
Punjab	0.21	Meghalaya	0.69
Andhra Pradesh	0.23	Karnataka	0.65
Haryana	0.26	Manipur	0.63
Gujarat	0.28	Odisha	0.63
Maharashtra	0.31	Jharkhand	0.58
Assam	0.32	Kerala	0.55
Rajasthan	0.37	Tamil Nadu	0.54
West Bengal	0.38		
Bihar	0.42		

Source: Author's calculations based on GoI, 2018a and GoI, 2018b

Table 4: Factors influencing performance of states in promotion of FPOs

Variables	Units	Coefficients of Discriminants function	Strength of the variable (%)
Promoting institutions (no per 000 ha GCA)	No/000 ha	0.912	53.68
KCC per operational holding	Per cent	0.153	8.98
Rural Literacy rate	Per cent	0.080	4.69
Ease of doing business	Per cent	0.353	20.80
Markets (no per 000GCA)	No/000 ha	0.201	11.85

Source: Author's calculations

Note: GCA= Gross Cropped Area

holding (8.98%), rural literacy (4.69%), ease of doing business (20.80%) and number of markets (11.85%) also contributed to the maximum towards the gap between the high and low performing states with respect to the performance of FPOs. Thus, it is revealed that identification and recognition of more of FPO promoting institutions and creating favorable climate for them to perform would do a great deal to enable states to move to good performing states.

CONCLUSION

The growth of FPOs across country and regions has not been uniform with more than 50% of total mobilised farmers belonging to four states namely Karnataka, Madhya Pradesh, Tamil Nadu and West Bengal. The highest number of promoting institutions have found in Karnataka (85) constituting about 8.9 % of the total promoting agencies functioning in the country. The number of FPOs promoting institutions per gross cropped area, ease of doing business, number of markets, KCC per operational holding and rural literacy are significant factors having bearing on the performance of the states. Following are the specific policy recommendations emanating from the study:

- The identification and promotion of good FPO promoting institutions should be undertaken so as to enhance the rate of formation of FPOs
- The states should focus on improving the ease of doing business in order to facilitate the better functioning of FPOs
- The states should engage more of FPO promoting institutions so as to enhance the rate of formation of FPOs.

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