

Effectiveness of Public and Private Extension System in Delivering Services

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ABSTRACT

A study was conducted in two districts (Kanpur Nagar and Kanpur Dehat) representing Central Plain Zone of Uttar Pradesh including 200 farmers on effectiveness of extension services provided by public and private extension system. The study clearly indicated that public extension system still assumed the supremacy over private extension system in ensuring supply of seed of the field crops whereas distribution of seeds of vegetables and planting materials was largely in the hands of private. The supply of fertilizers, weedicides, fungicides and insecticides was also done mostly by private agencies. However, new technological inputs are increasingly becoming 'private' rather than 'public' good.

Key words : Public and private extension system;

Traditionally, Indian Agriculture has been subsistence oriented with low energy, low amount of inputs use and very low involvement of private sector. This subsistence nature of agriculture is now changing into commercial, technologically dynamic, knowledge intensive agriculture with high amount of inputs use in judicious way and high integration of market. The commercial nature of agriculture demands new knowledge and continuous support. The increasing demand can't be sustained by public extension system alone due to several limitations. The demand and supply gap in extension services open the path for introduction and development of normal privatized extension services. The reasons behind the privatization of agricultural extension services are as (i) more financial burden on government-falling public investment in agriculture, (ii) disappointing performance of public extension services; (iii) commercialization of agriculture; (iv) technological advancement especially in the area of information and communication; (v) impact of Globalization and World Trade Organization; etc. however, the private extension has still to show its effectiveness over public extension system.

METHODOLOGY

Out of 9 agro-climate zones of Uttar Pradesh, one zone namely central plain zone was selected purposively for the study. Two districts one influenced by peri-urban agriculture (Kanpur Nagar) and other by rural agriculture (Kanpur Dehat) were selected purposively. The 200 farmers representing different categories of farmers were selected as respondents.

RESULTS AND DISCUSSION

Comparative effectiveness in delivery of services/inputs to farmers : Table 1 indicates that the total of 33 per cent farmers purchased pesticides from different public agencies as compared to 67 per cent from private agencies. In case of fertilizers, higher percentage of farmers (53%) purchased from private dealers as compared to public agencies. The respondents purchased farm machinery and animal medicines solely from private agencies. In case of seeds of food grains, 15 per cent farmers purchased from public agencies as compared to only 6 per cent from private agencies. But in case of seeds of vegetables, fodders and seedlings of fruits, forest trees, private was preferred over public extension agencies.

Table 1. Purchase of inputs by farmers from different agencies

S. No.	Type of inputs	Distribution of respondents in different agencies (%)	
		Public extension agencies	Private extension agencies
1	Pesticide	33	67
2	Fertilizers	47	53
3	Farm machinery	2	98
4	Animal medicines	-	100
5	Seed	-	-
i.	Food grain	15	6
ii.	Pulses	6	2
iii.	Oilseed	6.5	2.5
iv.	Vegetable	6	77
v.	Fruit seedlings	4	73
vi.	Fodder	2	09
vii	Forest plant	13	38
viii	Ornamental plants	-	68

Role of Public & Private Agencies in Advisory Services : The public extension still play major role in ensuring seeds of field crops whereas distribution of seeds of vegetables and plant nursery was largely in the hands of private.

It was also found that private played significantly higher role as compared to public in terms of adequacy of services in supplying fertilizers to the farmers. The fertilizers like Ammonium Sulphate, Murate of Potash and Calcium Ammonium Nitrate were found inadequately or not available with public and private extension services.

The private also dominated in ensuring availability of weedicides, fungicides and insecticides to the farmers. Mean value ranging between 2.92 to 2.95

show the adequacy of pesticide at private as compared to public extension services.

Machineries and implements were found only with the private dealers and were rated adequate by 46 per cent of the farmers. The tractors, tractor drawn implements, bullock drawn implements, man operated implements, agro processing machinery and irrigation pump sets were mostly sold by private dealers.

In Animal Husbandry, three types of services were being made available to the farmers i.e. medicines, veterinary and A.I. services. As far as medicines are concerned, it was solely in the hands of private. Public system played major role in A.I. services. Private also contributed to some extent but the public systems dominated in providing A.I. services.

Table 2. Availability of advisory services from public and private agencies (N= 200)

S. No	Type of services	Availability of services							
		Private extension system				Public extension system			
		Adequate	Inadequate available	Not	Mean	Adequate	Inadequate available	Not	Mean
1.	<i>Related to crop management</i>								
I	New varieties and their seeds	36 (18)	78 (39)	86 (39)	1.75	45 (22.5)	116 (58)	39 (19.5)	2.03
II	Fertilizers application	43 (21.5)	72 (36)	85 (42.5)	1.79 (34.5)	69 (63.5)	127	4(2)	2.32
III	Insect pest management	58 (29)	68 (34)	74 (37)	1.92	86 (43)	87 (43.5)	27 (13.5)	2.29
IV	Weed management	46 (23)	70 (35)	84 (42)	1.81 (29.5)	59 (40.5)	81 (30)	60	1.99
V	Water Management	16 (8)	19 (9.5)	165 (82.5)	1.25	45 (22.5)	116 (58)	39 (19.5)	2.03
2.	<i>Related to farm machinery</i>	92 (46)	108 (54)	-	2.46	-	-	-	-
3.	<i>Related to agrobased activities</i>								
i	Mushroom Production	-	07 (3.5)	183 (91.5)	0.98	39 (19.5)	21 (10.5)	140 (70)	1.49
ii	Bee keeping	02 (1)	14 (7)	174 (87)	1.08	42 (21)	59 (29.5)	99 (49.5)	1.71
iii	Poultry farming	07 (3.5)	12 (6)	181 (90.5)	1.09	12 (6)	-	188 (94)	1.12
iv	Horticultural aspects	11 (5.5)	- (4.5)	189 (94.5)	1.05 (98)	04	-	196	1.04
4.	<i>Related to market</i>								
i	Market intelligence	-	08 (4)	192 (96)	1.04	06 (3)	14 (7)	180 (90)	1.13
ii	Potential markets	06 (3)	32 (16)	162 (81)	1.22	16 (8)	46 (23)	138 (69)	1.39

Figures in parenthesis indicate percentage

Availability of diagnostic services : Diagnostic services like seed testing, pest and disease diagnosis, soil testing, pesticides residual effects, purity analysis of

fertilizers and irrigation water testing were revealed to be only in the hands of public extension system but adequacy of such services was quite low.

Table 3. Availability of diagnostic services. (N=200)

S. No.	Type of services	Availability of services							
		Private extension system				Public extension system			
		Adequate	Inadequate available	Not	Mean	Adequate	Inadequate available	Not	Mean
1	Seed testing	-	-	-	-	14 (7)	37 (18.5)	149 (74.5)	1.32
2	Pest & disease diagnosis	16 (8)	19 (9.5)	165 (82.5)	1.25 (33.5)	67 (46.5)	93 (20)	40	2.13
3	Soil testing	-	-	-	-	83 (41.5)	39 (19.5)	78 (39.5)	2.03
4	Pesticides residual effect	-	-	-	-	02 (1)	02 (1)	198 (99)	1.01
5	Purity analysis of fertilizers	-	-	-	-	03 (1.5)	03 (1.5)	197 (98.5)	1.03
6	Irrigation water testing	-	-	-	-	-	02 (1)	-	-

Figures in parenthesis indicate percentage

Availability of infrastructural services : The infrastructural services were mostly in the hands of private showing an adequacy mean level ranging between 2.76 to 2.96. The findings indicated that the private extension services were mostly engaged in

providing inputs whereas their role was limited in advisory and diagnostic services. However, the infrastructural services like transportation, cold storage, communication were found performed mostly by private sector.

Table 4. Availability of infrastructural services (N= 200)

S. No.	Type of services	Availability of services							
		Private extension system				Public extension system			
		Adequate	Inadequate available	Not	Mean	Adequate	Inadequate available	Not	Mean
1	Transportation	187 (93.5)	13 (6.5)	-	2.93	42 (21)	59 (29.5)	99 (49.5)	1.71
2	Cold storage	157 (78.5)	39 (19.5)	4 (2)	2.76	-	-	-	-
3	Communication	192 (96)	8 (4)	-	2.96	-	-	-	-

Figures in parenthesis indicate percentage.

Table 5. Extension performance in terms of 'man power and client ratio in district Kanpur Nagar and Kanpur Dehat.

S. No.	District level development departments	Man Power			Man power and client ratio
		Technical worker	Multi-purpose worker	Total worker	
1	A.H. & veterinary	39	40	79	1:10352
2	Plant protection	09	10	19	1:64661
3	Agriculture Deptt. excluding plant protection	12	94	106	1:14980
4	Horticulture	04	02	06	1:30714

Extension performance : Table 5 indicates that one person was found responsible to cater a large population of animal wealth i.e. 10352. Similarly, about 15000 farmers were being served by one extension worker which indicated huge difference in worker and client ratio. This was a very grim situation for developmental

process, showing very poor extension performance.

CONCLUSION

Private services still play major role in ensuring seeds of the field crops whereas distribution of seeds of vegetables and planting material were largely in the hands of private. Private was found playing significantly higher role as compared to public in terms of supplying fertilizers, weedicides fungicides and insecticides to the farmers. Machinery and implements and animal medicine were solely in the hand of private. Public system played major role in A.I. and veterinary services. "New technological inputs are increasingly becoming "private" rather than "public" good. Overall, public system had dominance over private system. Services related to agro based activities (mushroom production, bee keeping, poultry, horticultural aspects, etc.), market position, etc. were perceived inadequate by farmers in respect to public and private extension system both.

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