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Study on different extension activities taken up by the private extension service providers in Andhra Pradesh

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Abstract

Pluralism in agricultural extension services was studied in Andhra Pradesh state by using exploratory and descriptive research design. The Andhra Pradesh state was purposively selected for the study due to it is one of the important agricultural state in the country and many extension service providers are the stakeholders in the process of agricultural development. At the same time the findings of the study might be useful not only policy makers of Andhra Pradesh but also various agricultural extension service providers. All the middle, bottom and field level three categories of private extension service providers (Sales Executives/Sales officers, Sales Trainees and Field staff) were selected because these functionaries were responsible for doing extension activities at field level and covering the selected four villages in each district were selected purposively. From each company, three level extension officials were selected from each district, thus making a total of 45 for all the five private input companies from all three districts. The selected private input companies were; TATA Rallis India Ltd., Syngenta India Ltd., Indofil Chemicals Ltd., Nagarjuna Fertilizers and Chemicals Ltd., and Monsanto India Ltd., The results explored that most of the respondents of private extension service providers were found to be in the high category regarding cropping pattern activities (55.6%) and extension activities (53.3%). Majority of the respondents were found to be in medium category related to organizational activities (88.9%), agronomical activities (71.1%) and input activities (55.6%). All the respondents (100%) were found to be in the low category for watershed approach followed by fifty three percent of respondents were distributed in to low category regarding market intelligence. Results had been denoted that most of the time private extension service providers emphasized on production aspects such as; Organizational activities, agronomical practices, cropping pattern and extension activities like trainings, products promotions, result and method demonstrations, field trials, field days, exposure visits etc. than the watershed approaches, market led extension activities like; providing information on market intelligence were least prioritized.

Keywords: Pluralism, private extension service providers (PESP), cropping pattern, extension activities, watershed approaches and market activities

Introduction

Since the introduction of LPG (Liberalization, Privatization and Globalization) policies in the year 1991-92 as per the agreement with WTO chapter, the new economic policies have created a vastly different environment for Indian agriculture, imposing a liberal and global context. Also, over the years, many strategic internal changes have taken place in the form of improved family incomes, changing food habits, expanding agro-based industries and growing opportunities. At the same time, the land tenure system in the country has led to trend of increasing marginalization of farm holdings. These changes now warrant a radical reorientation of the agricultural extension system, for supporting agricultural development in the future.

But, then, the emerging trends in the agriculture sector must also come into reckoning. Under the new economic compulsions and assertive market pulls, the sector is likely to differentiate itself into two prominent segments: one, a small segment moving rapidly towards commercialization of global standards, and another, a larger segment moving slowly towards a kind of dual-goal farming, combining food security with cash farming.

At this juncture, in the process of evolution of an alternative extension system, visualizing an expanded role for extension better suited to the complex and diverse needs of the modern Indian rural economy in the need of the hour farmer participation in technology development and participatory extension approaches have emerged as a response to such new thinking. As Hoffmann (2000) [2] stated that many policy methods in transitional and less industrialized countries are keen to know of more concrete cases that enable them to obtain the vision of how

the process of public sector reform can proceed.

More recently the notion of extension as part of a wider system has emerged. For example, the 'interdependence model' (Bennet, 1992) ^[1] and the 'innovation systems framework' (Lundvall, 1992) ^[3] offer more inclusive ways of thinking about the actors and the institutional context in which the generation, diffusion and use of new knowledge would take place. This system of actors and process not only includes research and extension, but also technology users, private companies and Non Governmental Organizations, and supportive structures such as markets and credit. Such an effort will probably lead to a differentiation of the extension system itself one, a public, general extension system, a private, specialized extension system.

Vashistha (1998) ^[7] observed that private firms are involved in extension to (I) promote sales of production inputs or service (ii) assure continuous supply and quality of agricultural products (iii) promote or protect returns on investment in farms. Singh (1999) ^[6] elucidated that private extension firms involved in promotion of sale and services such as seeds, fertilizers, pesticides, herbicides, tools, machinery, animal feeds and medicines, assure a continuous supply and/or quality of agricultural products for marketing and processing, promote or protect returns on investments in farms and provide technical instruction to the farmers as not only what to produce, but how to produce on contractual basis. Murugan and Manoharan (2005) ^[4] indicated that the private extension organization functions as a commercial organization and concentrates on commercial crops. It helps the farmers involved in cultivation of commercial agriculture especially big and progressive farmers. Prabhu Kumar (2005) ^[5] stated that private sectors are best suited to produce and distribute material technology i.e. production, distribution and sale of seeds, implements, agro-chemicals and other production inputs. Private sector firms have very limited technical capacity to train farmers in products related skills and knowledge.

Materials and Methods

The study was carried out to study the public, private, and NGOs as agricultural extension service providers in Andhra Pradesh as general objective and to study the different extension activities taken up by the private extension service providers as specific objective. Exploratory and descriptive research design was adopted for conducting the study. It serves as a basis for clarifying concepts, establishing priorities, gathering information about research in reality and to describe accurately the parameters or issues involved in the problem selected for research. The sampling procedure comprises i) Selection of State ii) Selection of Districts iii) Selection of Villages iv) Selection of Respondents v) Data collection tools and Statistical tests used to analyze the data.

The Andhra Pradesh state was purposively selected for the following reasons viz., 1. It is one of the important agricultural states in the country and many extension service providers are the stakeholders in the process of agricultural development. 2. Since, the researcher hails from the same state and is familiar with the local language and local setup, it helps in building quick rapport. It also enables the researcher to carry out an in-depth study combined with personal observation. 3. The findings of the study might be useful to not only policy makers of Andhra Pradesh but also to various agricultural extension service providers. The selected districts from three regions for the study were Mahabubnagar from

Telangana region, Anantapur from Rayalaseema region and Prakasam from Coastal Andhra region. In each district, private extension service providers have been providing advisory services in several clusters of villages. By using lottery method, four villages were selected from each district. Those were; Chinnarajanur, Bandarupalli, Nawabpet and Appireddipalli from Mahabubnagar district; Muttala, Obuldevaracheruvu, Gangulakunta and Nagireddipalli from Anantapur district; and Rangapuram, Turimellaa, Vemulapeta and Chandalur from Prakasam district.

The study was undertaken mainly to involve each district several private input companies (seed companies, fertilizer companies and pesticide companies) have been providing extension advisory services to the farming community. From each private company only middle, bottom and field level three categories of extension service providers (Sales Executives/Sales officers, Sales Trainees and Field staff) were selected because these functionaries were responsible for doing extension activities at field level. From each company, three extension officials were selected from each district, thus making a total of 45 for all the five private input companies from all three districts. The selected private input companies were; TATA Rallis India Ltd., Syngenta India Ltd., Indofil Chemicals Ltd., Nagarjuna Fertilizers and Chemicals Ltd., and Monsanto India Ltd.,

In this study, various activities of private extension service providers were categorized in to five broad areas, viz; (A) Organizational activities (B) Input activities (C) Farming activities (D) Extension activities, and (E) Market Intelligence. These activities were quantified by taking responses on three point continuum, Frequently (F), Occasionally (O) and Never (N) with a scoring pattern of 3, 2 and 1 respectively. Average score of each activity for private extension service provider was calculated and ranks were given for simple comparison among the activities.

Data was collected from the selected respondents using a questionnaire. Questionnaire was developed in consultation with the experts in the field of agricultural extension and necessary modifications were made to avoid ambiguity and redundancy in the questions. Each selected respondent of private extension service providers was given questionnaire and interviewed personally by the researcher where ever needed. It was made sure that the questions were clearly understood by repeating whenever necessary. The data collected were coded, classified, tabulated with frequency, percentages categorised into class interval and analysed to make the findings more meaningful. These findings were suitably interpreted and necessary conclusions were drawn from them.

Results and Discussion

Distribution of respondents of Private Extension Service Providers based on the Activities

The results revealed that most of the respondents of private extension service providers (Table 1) were found to be in the high category on activities such as agronomical practices (95.6%), cropping pattern (88.9%), extension activities (75.6%), input activities (66.7%) and organizational activities (60%). But in case of market intelligence majority of them were found in the medium category (55.6%), where as in watershed approach respondents were found in the low category (35.6%). The respondents of private extension service providers were found to be in the high category regarding cropping pattern activities (55.6%) and extension

activities (53.3%). Majority of the respondents were found to be in medium category related to organizational activities (88.9%), agronomical activities (71.1%) and input activities (55.6%). All the respondents (100%) were found to be in the low category for watershed approach followed by fifty three percent of respondents were distributed in to low category regarding market intelligence.

I. Organizational Activities taken up by the Private Extension Service Providers (PESP) were ranked based on the scores

It could be observed from the findings (Table 2) that private extension service providers responded on organizational activities such as; conducting pre-seasonal and regular trainings/campaigns for extension functionaries (I) and Imparting diagnostic skills and demonstration skills etc. (II) had given first and second priority. Followed by Exposure to

modern electronic media and Audio Visual (AV) aids (III), Micro planning (IV) and Establishing a coordinating and linkage mechanisms with other institutions (V) were ranked among the Sixteen Organizational activities. And the mean score on all organizational activities calculated was 87.

II. Input Activities taken up by the Private Extension Service Providers (PESP) were ranked based on the scores

It could be observed from the findings (Table 3) that private extension service providers expressed that they were more focused on inputs activities such as; Supply and distribution of seed, planting material, fertilizers and pesticides (I) and followed by providing information on technological infrastructure (II). Lastly, providing information on Seed production units/multiplications (III) were ranked among six input activities. And the mean score on all input activities was 80.

Table 1: Distribution of respondents of Private Extension Service Providers based on the Activities

S. No	Activities	Category	Range	Private ESP(n=45)	
				F	%
I	Organizational Activities	Low	16-26	2	4.4
		Medium	27-37	40	88.9
		High	38-48	3	6.7
II	Input Activities	Low	6-9	19	42.2
		Medium	10-13	25	55.6
		High	14-18	1	2.2
III	Farming Activities				
(A)	Watershed Approach	Low	6-9	45	100
		Medium	10-13	-	-
		High	14-18	-	-
(B)	Agronomical Practices	Low	14-22	-	-
		Medium	23-32	32	71.1
		High	33-42	13	28.9
(C)	Cropping Pattern	Low	4-6	5	11.1
		Medium	7-9	15	33.3
		High	10-12	25	55.6
IV	Extension Activities	Low	16-26	-	-
		Medium	27-37	21	46.7
		High	38-48	24	53.3
V	Market Intelligence	Low	8-12	24	53.3
		Medium	13-18	17	37.8
		High	19-24	4	8.9

III. Farming Activities taken up by the Private Extension Service Providers (PESP) were ranked based on the scores

It could be seen from the findings that private extension service providers explained the Farm activities in three different areas (A) Watershed Approach activities (B) Agronomical Activities and (C) Cropping Pattern activities.

The results of (A) Watershed Approach activities (Table 4) revealed the fact that they never been involved in those activities and equal response was given on all activities. Hence the mean score on all watershed approach activities was 45.

Table 2: Ranks were given to organizational activities based on the scores given by the Private ESP (F= Frequently, O= Occasionally and N= Never)

S. No.	Organizational Activities	Private ESP(n=45)			Score	Rank
		F	O	N		
		Freq.	Freq.	Freq.		
1	Conducting staff orientation on the organization objectives	18 (40)	27 (60.00)	-	108	
2	Micro planning	34 (75.5)	11 (24.44)	-	124	IV
3	Clarifying and promoting the role of science and technologies in agricultural development	20 (44.4)	25 (55.55)	-	110	
4	Conducting pre-seasonal and regular trainings/campaigns for extension functionaries	39 (86.6)	6 (13.33)	-	129	I
5	Process documentation	25 (55.5)	20 (44.44)	-	115	
6	Exposure to modern electronic media and Audio Visual (AV) aids	37 (82.2)	8 (17.77)	-	127	III
7	Facilitating financial assistance i.e. credit facilities to agricultural families	-	-	45 (100)	45	
8	Providing research and technological assistance to other NGOs/organizations or key individuals	-	11 (24.44)	34 (75.5)	56	
9	Establishing a coordinating and linkage mechanisms with other institutions	20 (44.4)	25 (55.55)	-	110	V

10	Providing financial assistance to other organizations	-	-	45 (100)	45	
11	Integrate the activities of public and private scientific institutions	9 (20)	15 (33.33)	21 (46.6)	78	
12	Facilitating interactions between local researchers and educators with the external agricultural research community	9 (20)	4 (8.89)	32 (71.1)	67	
13	Assisting the farmers in finding out schemes, programmes, getting application forms, filling, processing and sanction without any difficulty	-	1 (2.22)	44 (97.7)	46	
14	Assisting the farmers in getting subsidies, benefits and assistance from different schemes and developmental programmes	1 (2.22)	8 (17.77)	36 (80)	55	
15	Assisting in crop/live stock insurance for agricultural development to escape from risk	-	1 (2.22)	44 (97.7)	46	
16	Imparting diagnostic skills and demonstration skills etc.	39 (86.6)	5 (11.11)	1 (2.2)	128	II
Mean					87	

*Percentages in Parentheses

Table 3: Ranks were given to Input activities based on the scores given by the Private ESP (F= Frequently, O= Occasionally and N= Never)

S. No.	Input Activities	Private ESP(n=45)			Score	Rank
		F	O	N		
		Freq.	Freq.	Freq.		
1	Supply and distribution of seed, planting material, fertilizers and pesticides	34 (75.55)	10 (22.22)	6 (13.33)	128	I
2	Supply of farm equipment and implements, organic farm equipment, livestock feed and veterinary supplies	-	5 (11.11)	40 (88.88)	50	
3	Seed production units/multiplications	17 (37.77)	5 (11.11)	23 (51.11)	84	III
4	Supply of seed treatment material	8 (17.77)	9 (20.00)	28 (62.22)	70	
5	Supply of bio fertilizers, bio agents and bio pesticides	-	-	45 (100)	45	
6	Providing information on technological infrastructure	20 (44.44)	15 (33.33)	10 (22.22)	100	II
Mean					80	

*Percentages in Parentheses

Table 4: Ranks were given to Watershed approach activities based on the scores given by the Private ESP (F= Frequently, O= Occasionally and N= Never)

S. No	Farming Activities	Private ESP(n=45)			Score	Rank
		F	O	N		
		Freq.	Freq.	Freq.		
(A)	Watershed Approach					
1	Promoting soil and water conservation through, waste land development, land leveling, watershed practices and sustainable use of land	-	-	45 (100)	45	I
2	Construction and renovation of percolation and irrigation tanks	-	-	45 (100)	45	I
3	Regeneration of fallow lands and land reclamation to improve green cover	-	-	45 (100)	45	I
4	Facilitating drip and sprinkler irrigation	-	-	45 (100)	45	I
5	Digging of new wells and deepening of old wells	-	-	45 (100)	45	I
6	Tank Restoration and desilting activities	-	-	45 (100)	45	I
Mean					45	

*Percentages in Parentheses

It was also noticed that responses to the (B) Agronomical Practices (Table 5) such as; Providing information on seed treatment (I), followed by Providing information on Post-Harvest Technology (PHT), value addition techniques and export orient products (II) were given first and second rank.

Further, Providing information on weed control practices (IV) and providing information on harvesting techniques (IV) were placed equally ranked among the Fourteen Agronomical Activities. And the mean score on all agronomical activities was 94.

Table 5: Ranks were given to activities of Agronomical Practices based on the scores given by the Private ESP (F= Frequently, O= Occasionally and N= Never)

S. No	Farming Activities	Private ESP(n=45)			Score	Rank
		F	O	N		
		Freq.	Freq.	Freq.		
(B)	Agronomical Practices					
	Providing information on soil and agro climatic zone	11 (24.4)	28 (62.22)	6 (13.3)	95	
2	Providing information on seed treatment	37 (82.2)	5 (11.11)	3 (6.66)	124	I
3	Providing information on spacing and planting	11 (22.2)	24 (53.33)	10 (22.2)	91	
4	Providing information on nursery management	16 (35.5)	18 (40.00)	11 (24.4)	95	
5	Providing information on weed control practices	28 (62.2)	13 (28.88)	4 (8.89)	114	IV
6	Providing information on nutrient management	10 (22.2)	35 (77.77)	-	100	
7	Conducting irrigation water analysis	-	28 (62.22)	17 (37.7)	73	
8	Providing information on new package of practices and appropriate technologies	32 (71.1)	11 (24.44)	2 (4.44)	120	III
9	Providing information on growth regulators	-	26 (57.77)	19 (42.2)	71	
10	Providing information on harvesting techniques	28 (62.2)	13 (28.88)	4 (8.89)	114	IV
11	Providing information on Post Harvest Technology (PHT), value	35 (77.7)	6 (13.33)	4 (8.89)	121	II

	addition techniques and export orient products					
12	Creating awareness about new management practices like SRI (System of Rice Intensification)	9 (20)	12 (26.66)	24 (53.3)	75	
13	Creating awareness of traditional agricultural practices (ITKS)	6 (13.3)	11 (24.22)	28 (62.2)	68	
14	Providing information on bio fertilizers and bio control practices	-	9 (20.00)	36 (80)	54	
Mean					94	

*Percentages in Parentheses

Finally, (C) Cropping Pattern Activities of Farming activities were expressed as (Table 6); Providing information on inter cropping (I) and Promoting subsidiary farming activities (dairy, poultry, vegetable production, organic farming,

sericulture, fodder cultivation, prawn culture, social forestry, and nursery techniques) (II) were ranked first and second among the four cropping pattern activities and mean score was calculated as 105.

Table 6: Ranks were given to activities of Cropping Pattern based on the scores given by the Private ESP (F= Frequently, O= Occasionally and N= Never)

S. No (C)	Farming Activities Cropping Pattern	Private ESP(n=45)			Score	Rank
		F Freq.	O Freq.	N Freq.		
1	Providing information on inter cropping	27 (60)	16 (35.55)	2 (4.44)	115	I
2	Providing information on crop rotation	25 (55.5)	15 (33.33)	5 (11.1)	110	
3	Providing information on contingency plan	7 (15.5)	23 (51.11)	15 (33.3)	82	
4	Promoting subsidiary farming activities (dairy, poultry, vegetable production, organic farming, sericulture, fodder cultivation, prawn culture, social forestry, and nursery techniques)	27 (60)	12 (26.66)	6 (13.3)	111	II
Mean					105	

*Percentages in Parentheses

IV. Extension Activities taken up by the Private Extension Service Providers (PESP) were ranked based on the scores

It was found that private extension service providers shown their responses on Extension Activities (Table 7) such as; Distributing farm literature (I), Identification of farmer volunteers and meeting with opinion leaders (II), Organizing groups, facilitating group meetings, and village meetings (III), Conducting on farm demonstration trails, field days and video presentations, to promote its products (III) and Identifying right clients and stakeholders/target people (V) were ranked respectively among the Sixteen extension activities and mean

score of all extension activities was 99.

V. Market Intelligence Activities taken up by the Private Extension Service Providers (PESP) were ranked based on the scores:

It was indicated that the results of market intelligence activities shown (Table 8) such as; Providing information about market prices of different commodities (I), Providing information on other market opportunities (II) and Providing information about demand products in market (III) were ranked first, second and third among the eight market intelligence activities and mean score was calculated 75.

Table 7: Ranks were given to Extension Activities based on the scores given by the Private ESP (F= Frequently, O= occasionally and N= Never)

S. No	Extension Activities	Private ESP(n=45)			Score	Rank
		F Freq.	O Freq.	N Freq.		
1	Conducting Reconnaissance (survey of an area)	10 (22.2)	22 (48.88)	13 (28.8)	87	
2	Identification of farmer volunteers and meeting with opinion leaders	40 (88.8)	2 (4.44)	3 (6.66)	127	II
3	Identifying right clients and stakeholders/target people	35 (77.7)	10 (22.22)	-	125	V
4	Organizing groups, facilitating group meetings, and village meetings	36 (80)	9 (20)	-	126	III
5	Community mobilization for various development activities	4 (8.89)	34 (75.55)	7 (15.5)	87	
6	Awareness creation in which experts meet farmers to diagnose and solve their problems	31 (68.8)	13 (28.88)	1 (2.22)	120	
7	Conducting onfarm demonstration trails, field days and video presentations, to promote its products	38 (84.4)	5 (11.11)	2 (4.44)	126	III
8	Conducting study tours and field trips	2 (4.44)	37 (82.22)	6 (13.3)	86	
9	Promotion of women participation in agriculture and women empowerment activities	3 (6.66)	4 (8.89)	38 (84.4)	55	
10	Conducting soil testing surveys, melas and rythusadassu	11 (24.4)	23 (51.11)	11 (24.4)	90	
11	Screening of agricultural films, slide shows and radio talks	20 (44.4)	22 (48.88)	3 (6.66)	107	
12	Receiving feedback regularly	22 (48.8)	9 (20.00)	14 (31.1)	98	
13	Conducting impact studies	6 (13.3)	31 (68.88)	8 (17.7)	88	
14	Distributing farm literature	41 (91.1)	4 (8.89)	-	131	I
15	Providing information on plant protection measures and Integrated Pest Management (IPM)	12 (26.6)	26 (57.77)	7 (15.5)	85	
16	Encouragement of natural fertilizing methods and sustainable Natural Resource Management (NRM)	-	6 (13.33)	39 (86.6)	51	
Mean					99	

*Percentages in Parentheses

Table 8: Ranks were given to Market Intelligence activities based on the scores given by the Private ESP (F= Frequently, O= Occasionally and N= Never)

S. No	Market Intelligence Activities	Private ESP(n=45)			Score	Rank
		F	O	N		
		Freq.	Freq.	Freq.		
1	Providing information on cold storage and warehousing facilities	3 (6.66)	13 (28.88)	29 (64.44)	64	
2	Providing information on transport and weighment facilities	4 (8.89)	14 (31.11)	27 (60.00)	67	
3	Providing information about export facilities	3 (6.66)	20 (44.44)	22 (48.88)	71	
4	Providing information about market prices of different commodities	11 (24.44)	25 (55.55)	9 (20.00)	92	I
5	Providing information about processing and grading facilities	3 (6.66)	17 (37.77)	25 (55.55)	68	
6	Providing information about deficiency products in market	3 (6.66)	21 (46.66)	21 (46.66)	72	
7	Providing information about demand products in market	4 (8.89)	29 (64.44)	12 (26.66)	82	III
8	Providing information on other market opportunities	8 (8.89)	22 (48.88)	15 (33.33)	83	II
Mean					75	

*Percentages in Parentheses

Conclusion

Based on the responses given by the Private Extension Service Providers (PESP) on different extension activities, they were distributed in to class interval and mean scores clearly denoted that, their services were emphasized on cropping pattern, extension activities, agronomical activities, organizational and input activities and input activities. Lastly, market intelligence and watershed activities were focused.

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