A Case Study

PRA tools for real technology dissemination planning: A case study of Bhawanipura village of Etawah district

■ **VINOD PRAKASH, ARUN KUMAR SINGH AND H.C. SINGH**

SUMMARY : A participatory approach can be defined as one which deeply respects the knowledge of the local people and creates an environment in which local people can understand their potential, their capacity, and their power and come to develop their self esteem. PRA is defined as a way of enabling local people to analyze their living conditions, to share the outcomes of this analysis and to plan their activities. It is a 'handing over the stick from outsider to insider' in methods and action. The outsiders' role is that of a catalyst, a facilitator and convener of the processes within a community to alter its situation. PRA was carried out by a multidisciplinary team of scientist in Bhawanipura of Barhpura block of Etawah district of Uttar Pradesh. It is located approximately 18 km. away from Krishi Vigyan Kendra, Etawah. The Agro-climatic is south western semi arid zone with extreme summer and winter. Triangulations- Different methods were used for data collection to ensure objectively of data. These methods are briefly discussed here. On the spot visualization, personal and group interview, key information interview, secondary data source, semi structured interview and cartographic representation or mapping. The study revealed that the point guard crop was risky in the time of water coming in canal and resulted in unstable yield. Quality and quantity production of crop how can gate when non- availability of seed at time, imbalance use of fertilizers, insect-pest incidents, Jhoka and blast disease, weed infestation non-availability f labour at time of potato digging, non- timely supply of water in canal, distance of market for sale produce and paddy of transplanting. Therefore, planning should be done according to their problems.

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BACKGROUND AND OBJECTIVES

Participatory rural appraisal (PRA) is an approach which emphasizes local knowledge and enables local people to make their own appraisal, analysis and plans to take action. PRA uses group exercises to share information, analysis and action among stakeholders. Why PRA: PRA is a means to people's participation to understand the social aspects of the village, to develop common understanding on the village conditions and natural resource situation, to learn the criteria of farmers which to select appropriate technology available to encounter a problem (*i.e.* exotic or indigenous technologies) to observe the facts directly on the field, to discuss problems and solutions with farmers, to encourage resource poor and women to share their grievances for to select appropriate technology available to encounter a problem (*i.e.* exotic or indigenous technologies) to observe the facts directly on the field, to discuss problems and solutions with farmers, to encourage resource poor and women to share their grievances and to identify and prioritize the needs. Main thrust should be given on critical assessment of the available technologies in term of local farmers' natural and socio economic

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situations (Kar *et al.*, 2002). The study was conducted with the objective: to analyze the agricultural problems and prospects with reference to the local resource base, agro-ecology, technology dissemination planning and adoption for improvement of the socio-economic status of the villages.

RESOURCES AND METHODS

PRA was carried out by a multidisciplinary team of scientist in Bhawanipura of Barhpura block of Etawah district of Uttar Pradesh. It is located approximately 18 km. away from Krishi Vigyan Kendra, Etawah. The agro-climatic is south western semi arid zone with extreme summer and winter.

Triangulations :

Different methods were used for data collection to ensure objectively of data. These methods are briefly discussed here. On the spot visualization, personal and group interview, key information interview, secondary data source, semi structured interview and cartographic representation or mapping.

OBSERVATIONS AND ANALYSIS

In social survey majority (50%) of the respondents were found in the age group of 30-45 years with 85 literacy percentage. Maximum *i.e.* 63 per cent respondent were found in above primary school categories. Majority (48%) belonged to SC category while, the OBC and general castes were 38 and 14 per cent, respectively. 35 per cent respondents were the member in one organization and 05 per cent in more than one organization. The majority (85%) respondents were found having their house of pacca type. The majority (88%) of the respondent's families have adopted farming as a main occupation. Maximum (68%) respondents belonged to joint family system. Maximum (44%) respondents were observed such who had 5-17 members in their families (Table 1).

Table 1 : Socio-economic status of the village

Sr. No.	Socio-economic profile	Population 1550 (Approximately) Percentage
Social survey		
1.	**Age composition**	
	Young (up to 30 years)	18
	Middle (30 to 45 years)	50
	Old (above 45 years)	32
2.	**Educational status**	
A	Illiterate	15
B	Literate	85
I	Can sign only	12
II	Primary school	25
III	Above primary school	63

Table 1: Contd……..

Sr. No.	Socio-economic profile	Percentage
Table 1: Contd………..		
3.	**Caste composition**	
	General	14
	Backward	38
	Scheduled caste	48
4.	**Social participation**	
	No participation	60
	Member of one organization	35
	Member of more than one organizations	05
5.	**Housing pattern**	
	Kachcha	15
	Pucca	85
6.	**Occupation**	
	Farming	88
	Service	6
	Business	6
7.	**Family type**	
	Single	32
	Joint	68
8.	**Size of family**	
	Up to 4 members	33
	5 – 17 members	44
	Above 17 members	23
Resource survey		
1.	**Holding**	
	Marginal (up to 1 ha)	50
	Small (1 to 2 ha)	36
	Medium (2 to 4 ha)	12
	Big (Above 4 ha)	02
2.	**Land**	
	Irrigated	95
	Un irrigated	05
3.	**Farm power**	
	Tractor	02
	Pumping set / tube well	05
	Cultivator	08
4.	**Transportation material**	
	Motorcycle	55
	Car	1
	Cycle	95
5.	**Communication media**	
	Television	25
	Newspaper	02
	Agril. magazine	02
6.	**Live stock**	
	Low (up to 1 animal)	35
	Medium (2 to 4 animals)	60
	High (Above 4 animals)	05
7.	**Sources of irrigation**	
	Private tube well / pump set	15
	Canal	85

Table 2 : Transect walk in Bhawanipura village

Attributes	Particulars of the village			
	Village	Plain land	Low land	Up land
Topography				
Soil type	Loam	Sandy loam	Clay loam	Loam
Water table	55-65ft	70-80ft	50-55ft	100-110ft
Crop	---	Wheat, Mustard, Gram, Paddy, Groundnut, Chili, Brinjal, Pont guard, Okra,	Paddy, Wheat, Fallow	Vegetables, Bajra, Maize, Arhar
Trees	Neem, Sheesham, Piple, Banyan , Jamun	Neem, Sheesham, Eucalyptus	Neem, Sheesham,	Neem, Sheesham,
Live stock	Cow, Ox, Buffalo, Goat, Dog,	Goat	---	---
Primary land use pattern	Agriculture plus grazing	Agriculture	---	Livestock rearing
Irrigation	Canal, Diesel pump set/tube well,	Canal, Diesel pump set/tube well,	Canal	Rain fed, Diesel pump set/tube well,
Horticulture	Mango, Jamun, Guava, Ber, Shahatut	Mango, Jamun, Guava, Ber	Mango	Mango, Jamun, Guava
Problem	---	Some time water logged due to canal	Water logged due to canal and rain water	Rain fed
Opportunities	---	Seed production	Drainage	Dry land farming

In resource survey maximum of the respondents (50%) were observed in the marginal (Up to 1 ha) followed by 36 per cent in small (1-2 ha) and 12 per cent in medium (2-4 ha), category. Maximum (95%) respondents had irrigated land and (8%) had cultivator. The majority 95 per cent respondents were found possessing cycle as the main conveyance followed by 55 per cent having motorcycle and 1 per cent car. Majority (25%) of the respondents were having TV as a communication media. Maximum 60 per cent respondent were observed in medium category (2-4) live stock. Maximum (85%) respondents had a source of irrigation as a canal and 15 per cent had tube well as source of irrigation.

Transects are observatory walks or tracks across the countryside and fields in any area. After establishing the extreme east and west boundaries of the village, as delineated by the key informants (KIs), an east to west farm walk was undertaken across the village and the observations made are given below in Table 2.

Fig. 1 revealed that Venn diagram describes working of organization in the village and their relationship with regards to overall development and welfare of the village people. Organization of KVK, seed store and district head quarter were place at far from the village, shows weak relationship with people. Milk society is doing good job but it is not so important as compared to cooperative society and block.
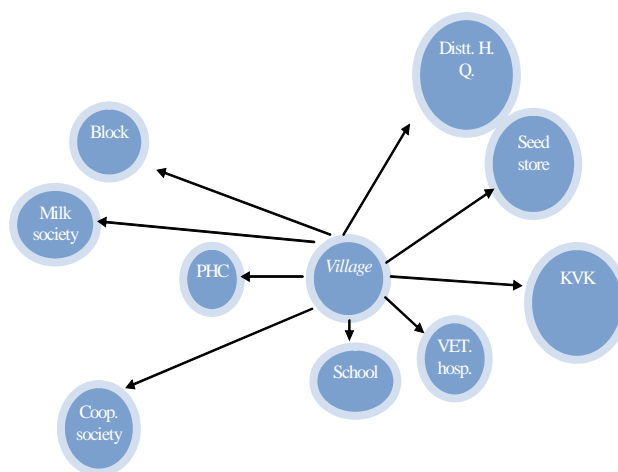

Fig. 1: Venn diagram of Bhawanipura village

The purpose of matrix ranking was to get better understanding of farmers decision making process and to identified criteria used to prioritize and select certain items or activities over others. Highly adopted varieties were Pro-Agro 6444 in paddy and Shatabdi in wheat varieties (Table 4 and 5).

Seasonal calendar:

Availability of fodder was more in June - August while

Agric. Update, **8**(4) Nov., 2013 : 661-664
Hind Agricultural Research and Training Institute

663

Table 3: Historical timeline of Bhawanipura village

Years	Historical events
1989	Motor cycle introduced
1986	Canal
1965	Urea was introduced
2000	Hybrid variety introduced
1974	Tube well
1978	Pesticide in paddy
1990	Paddy introduced
1991	Tractor
1995	Use of sprayer
1987-88	TV
2001	Mobile
1970	Pucca house in village
1984	Winnowing fan
1990	Zinc application

Table 4 : Preference ranking for paddy varieties

Variety/criteria	Mahamaya	Saryu-52	Pro-agro 6444
Yield	3	3	5
Quality	2	3	4
Resistance	1	2	5
Duration	3	3	4
Cost of production	3	4	5
Price	2	2	4
Total	14	17	27
Rank	III	II	I

Table 5 : Preference ranking for wheat varieties

Variety/ criteria	Halana	Unnat halana	BPW 343	Shatabdi
Yield	2	2	4	5
Quality	1	2	3	4
Resistance	1	2	2	5
Duration	3	3	3	3
Cost of production	3	3	4	5
Price	2	3	3	4
Total	12	15	19	26
Rank	IV	III	II	I

its shortage was reported during November. Labour availability was reported more in month of May and September while problem of labour was reported only in November.

Problem cause diagram :

The problems were identified and prioritize by mutual interaction. The major problems were non availability of seed at time, imbalance use of fertilizers, insect-pest incidents, Jhoka and blast disease, weed infestation, non-availability of labour at time of potato digging, no timely supply of water in canal, distance of market for sale produce and paddy transplanting.

Conclusion :

PRA is an effective tool to get first hand information on available natural resources, technology and adoption, rejection, problems and prospects of the farming community in his situation. The study revealed that the point guard crop was risky in the time of water coming in canal and resulted in unstable yield. Quality and quantity production of crop how can get when non -availability of seed at time, imbalance use of fertilizers, insect-pest incidents, Jhoka and blast disease, weed infestation, non-availability of labour at time of potato digging, no timely supply of water in canal, distance of market for sale produce and paddy transplanting. Therefore, planning should be done according to their problems.

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