Attitude of paddy and irrigated dry crop growers towards the use of agricultural implements and machinery

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ABSTRACT

The studies were conducted on the use of farm implements and machinery by the paddy growers of Karimnagar district of Telangana region. Ex post facto research design was adopted in the present investigations. Karimnagar district was purposively selected for the study as maximum budget was allocated by the Department of Agriculture, Government of Andhra Pradesh to this district in Telangana. Four villages were selected from two Mandals of Karimnagar district which included 30 farmers from each village thus making a sample of 120 farmers.Majority of small farmers (50%) were found to possess unfavourable attitude whereas medium (52.5%) and large (37.5%) farmers were found to possess partially favourable attitude towards agriculture.

Keywords: Implements; machinery; paddy; attitude; favourable; unfavourable

INTRODUCTION

Indian agriculture is undergoing a gradual shift from dependence on human power and draft animal power (DAP) to mechanical power because maintenance of DAP and manual labour is becoming increasingly costly coupled with scarce availability of fodder and feed to animals. Modern farm mechanization enhances the agricultural production besides assuring better quality of work. The adoption of modern farm machinery/tools like tractors, power tillers, combine harvester, irrigation pumps, drip irrigation etc has brought a drastic change in Indian agriculture resulting in replacement of traditional means and methods used by the farmers for different operations.

Farm mechanization is an important element of modernization of agriculture. Farm productivity is positively correlated with the availability of farm power coupled with efficient farm implements and their judicious utilization. Agricultural mechanization not only enables efficient utilization of various inputs such as seeds, fertilizers, plant protection chemicals and water for irrigation but also it helps in poverty alleviation by making farming an attractive enterprise.

Increasing the mechanization in agriculture means that more tasks can be completed at the right time and greater areas can be farmed to produce greater quantities of crops while conserving natural resources. Applying new technologies that are environment-friendly enables farmers to produce crops more efficiently by using less power.

Sustainable agricultural mechanization can also contribute significantly to the development of value chains and food systems as it has the potential to render postharvest, processing and marketing activities and functions more efficient, effective and environment-friendly.

The ICAR in its Vision 2020 document has projected the demand of food grains as about 293.6 MT by 2020 for which besides other things the average farm power availability will have to be increased from

Table 1. Distribution of the respondents according to their attitude on various agricultural implements and machinery (n= 120)

Attitude		Number/percentage of farmers									Total
		Paddy (n= 60)			Irrigated dry crops (n= 60)			Overall			
		S	M	L	S	M	L	S	M	L	
Unfavourable (12-20)	n	7	10	5	13	8	5	20	18	10	48
	%	35	50	25	65	40	25	50	45	25	40
Neutral (20-28)	n	11	10	7	5	11	8	16	21	15	52
	%	55	50	35	25	55	40	40	52.5	37.5	43.3
Favourable (28-36)	n	2	0	8	2	1	7	4	1	15	20
	%	10	0	40	10	5	35	10	2.5	37.5	16.6
Total	n	20	20	20	20	20	20	40	40	40	120
	%	100	100	100	100	100	100	100	100	100	100

S= Small, M= Medium, L= Large

the present level of about 1.35 to 2.00 kw/ha by 2020 (Banerjee 2010).

Despite of the advantages of farm mechanization many constraints are also reported to stand in the way of it such as small size and scattered holdings of the farmers, majority of small cultivators being poor who are not in a position to purchase the costly machinery, lack of proper knowledge of the farmers to purchase farm machinery, operate and maintain it properly, great shortage of diesel in the country as a whole, inadequacy of farm power and machinery with the farmers, lack of repair and replacement facilities especially in the remote rural areas etc. Also due to seasonal nature of the agriculture the farm machinery remains idle for much of the time.

METHODOLOGY

Telangana region in Andhra Pradesh was selected for the investigations and out of 10 districts of Telangana region, Karimnagar district, out of 57 Mandals of the district and two Mandals namely Choppadandi and Jagitial were selected for the study purposively as maximum budget had been allotted by the Department of Agriculture, Government of Andhra Pradesh to this region under farm mechanization. From each Mandal two villages namely Bhoopalapatnam and Vedurugatta in Choppadandi and Dharur and Thippannapet villages in Jagitial Mandal were selected randomly. From each village 10 small, medium and large farmers each cultivating paddy and irrigated dry crops were selected randomly. Data were collected from the respondents by using a pre-tested interview schedule.

Ex post facto research methodology was adopted in the present study which is a systematic enquiry in which the researcher does not have direct control over the independent variables because their manifestations have already occurred or because they are inherently not manipulable Kerlinger (1973).

RESULTS and DISSCUSSION

Results in Table 1 indicate that majority of small farmers (50%) were found to possess unfavourable attitude and medium (52.5%) and large (37.5%) farmers were found to possess neutral attitude towards agricultural implements and machinery. Low socio-economic status, socio-political participation, knowledge and extent of use might have caused unfavourable attitude of the farmers towards agricultural implements and machinery among the small farmers.

Thakur and Sharma (2016) studied the attitude of farmers towards modern farm machinery/tools and implements in Himachal Pradesh. A majority of them had neutral attitude ie neither favourable nor unfavourable towards modern farm mechanization though they had good scientific orientation and economic motivation.

Bite et al (2015) conducted a study in Akola district of Maharashtra on attitude of farmers towards farm mechanization and observed that a two-third of the respondents (65.83%) had favourable attitude towards the farm mechanization. Majority of the farmers showed medium level of attitude (65.83%) followed by high (18.33%). It was observed that credit sources, sources of information, risk preference, scientific orientation and extension contact were positively and significantly correlated with the attitude towards farm mechanization. It was further revealed that source of information, risk preference and scientific orientation had significant effect on attitude.

The attitude of farmers can be made favourable through intensive trainings and development and dissemination of low cost agricultural implements and machinery, by involving farmers in research and development of agricultural implements and machinery and motivating farmers to develop location specific farm innovations etc. The above findings are in accordance with the findings of Oladeji et al (2012).

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