IMPACT OF DAIRY FARMING INTERVENTIONS INTRODUCED THROUGH TECHNOLOGY ASSESSMENT AND REFINMENT (IVLP)

Gopal Sankhala[1], Surendra Singh[2], B.S. Meena[3] & G.P. Meena[4]

The Indian Council of Agricultural Research had initiated various agricultural and dairy development programmes. These programme have been evaluated from time to time and it was found that many programmes were not successful as it was hoped. There is need to study such programmes because the impact assessment is an integral part of any extension programme and knowing the reason of failure so that with little or more modification could be made for effective benefit of the farmers.

Based on the participatory approach in technology transfer, Indian Council of Agricultural Research as conceived a project on Technology Assessment and Refinement through institution village linkage programme (IVLP). This project is operational at the National Dairy Research Institute, Karnal for past four years in a cluster of five villages of Karnal District, covering 1000 farm families. In this project, several dairy-farming interventions in addition to crop production interventions were assessed and refined at farmers' field over past 4 years with the active participation of the farmers.

Success of any programme depends on the effective participation of the target group. The extent of articulation of the target group dependents upon their knowledge about the content of the programme & its benefits, adoption level, attitude towards the programme and constraints experienced by them while adopting the interventions. Hence, it is the right time to know the impact of the programme, which is very much essential for the researchers, planners and extension professionals/executors to strengthen the programme. Keeping in view of above, the study entitled "impact of dairy farming interventions introduced in technology assessment and refinement through IVLP of NDRI, Karnal" was taken with the specific objective to asses the impact of dairy farming interventions on the farmers regarding level of knowledge and adoption.

METHODOLOGY

The research was conducted in the 10 villages of Karnal district of Haryana state. There were 100 respondents among which, 50 respondents from the five adopted villages of IVLP as an experimental group and 50 from the five non-adopted villages as controlled group were selected proportionately based on herd size. The data were collected by personal interview of the respondents with the help of pre-tested interview Schedule.

RESULTS AND DISCUSSION

1. Impact on Knowledge About dairy Farming Interventions :

Knowledge is a prerequisite to the proper utilization of improved dairy farming interventions by the dairy farmers. One of the aims of any developmental programme is to increase the level of knowledge of target groups. Ultimately knowledge is linked with the

1. Scientist (SS), Dairy Extension, 2. Technical Assistant, DWR, Karnal.
3. Scientist, IFGRI, Jhansi(UP), 4. Ph.D Scholar, Dairy Extension,NDRI,Karnal .

enhanced socio-economic status of the dairy farmers.

1.1. Level of knowledge about dairy farming interventions–The frequency distribution of respondents according to level of knowledge about dairy farming interventions is presented in Table 1. The table revealed that the majority of the beneficiary respondents 56.00 and 44.00 per cent were having medium and high overall level of knowledge regarding dairy-farming interventions, respectively. While, in case of non beneficiary respondents 60.00 and 40.00 per cent were having medium and low level of overall knowledge regarding dairy farming interventions in breeding, feeding, healthcare and fodder production areas. There were no respondents in low-level overall level knowledge in case of beneficiaries while in case of non-beneficiary respondents, there were 40.00 per cent respondents had low level of overall knowledge about diary farming intervention as well as there were none of the respondents in high level of overall knowledge in case of non beneficiary dairy farmers. It means that beneficiary farmers were having medium to high knowledge about dairy farming interventions while non-beneficiary farmers were having medium to low level knowledge. Further it can be concluded that beneficiaries were having more knowledge in comparison to non-beneficiaries due to TAR programme.

Table 1. Distribution of respondents according to level of knowledge about Dairy farming interventions

Category	Beneficiary (N =50)		Non Beneficiary (N =50)	
	Frequency	%	Frequency	%
Low < 33	0	0.00	20	40.00
Medium 33-62	28	56.00	30	60.00
High > 62	22	44.00	0	0.00

1.2. Extent of knowledge about dairy farming interventions :

Breeding intervention– It was revealed from table 2 that beneficiary respondent showed the extent of knowledge 62.2 per cent in breeding interventions, while in non-beneficiary respondents the extent of knowledge about breeding interventions were 46.08 per cent. The extent of knowledge of beneficiaries about breeding intervention was greater than the non-beneficiaries. Therefore, it was the clear-cut good impact of the TAR programme on the beneficiary respondents.

Feeding intervention–Table 2 Showed that extent of knowledge about feeding intervention amongst the beneficiary respondents were 63.73 per cent where as non-beneficiary respondents were having 24.40 per cent extent of knowledge regarding feeding interventions. Therefore, the extent of knowledge of beneficiary respondents in feeding interventions was increased due to the active participation of the farmers in TAR programme.

Table 2. Extent of knowledge about dairy farming interventions

S. No.	Area	Extent of knowledge (in percentage)	
		Beneficiary	Non-benficiary
1.	Breeding	65.20	46.08
2.	Feeding	63.73	24.40
3.	Healthcare	72.30	55.84
4.	Fodder production	56.00	47.92
5.	Overall	64.30	43.07

Healthcare intervention–It was clear from the table 2 that among the beneficiary respondent, the extent of knowledge regarding healthcare interventions were 72.3 per cent. While in case of non-beneficiary respondent, the extent of knowledge about health care interventions were 55.84 per cent. The beneficiary respondents were having more extent of knowledge regarding healthcare interventions as compare to non-beneficiaries respondents.

Fodder production intervention–Table 2 showed that 56.0 per cent extent of

knowledge was found among the beneficiary respondents, while in non beneficiary respondents the extent of knowledge regarding fodder interventions were 47.92 per cent. The beneficiary respondents were having more extent of knowledge regarding fodder production interventions as compare to non-beneficiaries respondents due to the sound exposure of improved fodder production practices.

Overall Extent of Knowledge—It is seen from the table 2 that overall extent of knowledge regarding dairy farming interventions was 64.30 per cent among the beneficiary respondents. Whereas, in case of non-beneficiary respondents the overall extent of knowledge was 43.07 per cent. Therefore, it is understandable that increase of overall extent of knowledge among the beneficiaries were due to the effective implementation of TAR programme in the adopted villages because services of information and training was provided to beneficiary farmers before the implementation of dairy farming interventions.

2. Impact on Adoption of Dairy Farming Interventions :

2.1. Level of Adoption Regarding Dairy Farming Interventions—It was observed from the table 3 that majority of the beneficiaries (64.00%) were found under the medium category of overall adoption about dairy farming interventions. Whereas, 36 per cent respondents were found under the high category of adoption and none of them were having low overall adoption dairy farming interventions. In case of non-beneficiaries, the majority of the respondents (78.00%) were found under the medium category of overall adoption regarding dairy farming interventions. Where as, 22.00 per cent non-beneficiaries were found under the low category of adoption. None of the respondent was in high overall adoption dairy farming

interventions. This clearly indicated that beneficiaries of TAR programme were having higher adoption level over non-beneficiaries.

Table 3. Level of adoption of dairy farming interventions

Category	Beneficiary (N =50)		Non Beneficiary (N =50)	
	Frequency	%	Frequency	%
Low < 17)	0	0.00	11	22
Medium (17-31)	32	64	39	78
High (> 31)	18	36	0	0.00

2.2. Extent of Adoption of Dairy Farming Interventions

Breeding Intervention—It is revealed from the Table 4 that beneficiary respondent had the extent of adoption 58.36 per cent and non-beneficiary respondents had 44.36 per cent extent of adoption related to breeding interventions. The extent of adoption of beneficiaries about breeding intervention was greater than the non-beneficiaries.

Feeding Intervention—The Table 4 showed that extent of adoption about feeding intervention amongst the beneficiary respondents was 56.00 per cent. Incase of non-beneficiary respondents there was 28.33 per cent extent of adoption regarding feeding interventions. It was observed during the investigation that beneficiary respondents were actively participated in the process of technology refinement as a result they had more extent of adoption.

Healthcare Intervention—Table 4 showed that the beneficiary respondents were having 65.25 per cent extent of adoption regarding healthcare interventions. While in case of non-beneficiary respondent, the extent of adoption about health care interventions was 43.75 per cent. The beneficiary respondents had increased the extent of adoption regarding healthcare interventions due to the effective implementation of the TAR programme.

Table 4. Extent of adoption of dairy farming interventions

S. No.	Area Beneficiary	Extent of knowledge (in percentage)	
		Non-	benficiary
1.	Breeding	58.36	44.36
2.	Feeding	56.00	28.33
3.	Healthcare	65.25	43.75
4.	Fodder production	52.88	43.00
5.	Overall	58.12	39.86

Fodder Production Intervention–It was revealed from the table 4 that 52.88 per cent extent of adoption was found among the beneficiary respondents, while non-beneficiary respondents had 43.00 per cent extent of adoption regarding fodder interventions. It was clear that beneficiaries farmers were adopted the improved fodder production practices as compare to non-beneficiaries due to the effective implementation of TAR programme in adopted villages.

Overall Extent of Adoption–Finally it was observed from the Table 4 that overall extent of adoption regarding dairy farming interventions among the beneficiary respondents was 58.12 per cent. Where as, in case of non-beneficiary respondents, the overall extent of adoption regarding dairy farming interventions was 39.86 per cent. Therefore, it is understandable that increase of overall extent of adoption among the beneficiaries were due to the effective implementation of TAR programme in the adopted villages because services of information and training was provided to beneficiary farmers before the implementation of dairy farming interventions.

3. Difference Between Knowledge and Adoption of BeneficiarIES and Non-Beneficiaries :

From the Table 5, it is observed that 't' test employed for the study of difference between beneficiaries and non beneficiaries groups with selected variables i.e. knowledge and adoption. There is significant difference between breeding, feeding, healthcare, fodder production and overall knowledge about dairy farming interventions of beneficiaries and non-beneficiaries respondent. The calculated 't' value was found to be statistically significant at 1.00 per cent level in all the aspects. This shows that the beneficiaries were having more knowledge for the dairy farming interventions.

Table 5. Difference between knowledge and adoption of beneficiary and non-beneficiary respondents

S. No.	Variables	Mean		"t" value calculated
		Beneficiary (N = 50)	Non Beneficiary (N = 50)	
A.	**Knowledge**			
1	Breeding	15.64	11.05	20.24**
2	Feeding	19.11	10.32	27.83**
3	Healthcare	9.39	7.25	8.30**
4	Fodder production	14.56	12.45	15.17**
5	Overall knowledge	59.80	42.83	35.18**
B.	**Adoption**			
1	Breeding	5.40	4.87	6.23**
2	Feeding	3.25	1.69	11.01**
3	Healthcare	6.50	3.50	9.30**
4	Fodder production	13.30	7.74	18.99**
5	Overall adoption	28.45	17.13	16.27**

** Significant at 1 percent level of probability

The information in the table further shows that there is significant difference between breeding, feeding, healthcare, fodder production and overall adoption of dairy farming interventions of beneficiary and non-beneficiary respondents. The calculated 't' value was found to be statistically significant at 1.00 per cent level of probability. It is clear indication on the fact that beneficiaries are better adopter of dairy farming interventions.

CONCLUSION

It was concluded that knowledge and adoption of dairy farming interventions were significantly higher among beneficiaries over non-beneficiaries. This implies that the TAR (IVLP) programme had significant impact on the farmers. If the implementation of location specific programme can bring magnificent impact, it is worthy of note that technology assessment and refinement programme should be promoted and multiply throughout the length and breath of the country to bring quick and desirable changes for socio-economic betterment of the farmers.

REFERENCES

1. Anita, S., Kude, V.R. and Kalantri, R.B. 1991. Knowledge of farm women about agricultural practices and their participation in Agricultural Operations. *Maha. J. Extn. Edn.*, 10(2) : 185-190.

2. Hazarika, P. 1983. A study of correlates of knowledge and adoption behaviour of the dairy farmers under ICDP, Khanapara (Assam). Unpub. M.Sc. Thesis, Kurukshetra University, Kurukshetra.

3. Kaushik, S.K. 1988. A study of impact of MPCS on the knowledge and adoption of scientific dairy husbandry practices in Hisar district (Haryana) Unpub. M.Sc. Thesis, NDRI, Karnal.

4. Patil, B.P. 1981. Impact of ICDP on dairy development in the milk-shed area of Miraj (Maharashtra) Unpub. M.Sc. Thesis, Kurukshetra University, Kurukshetra.

5. Singh, H. and Patel, H.N. 1990. Knowledge level and socio-economic characteristics of contact and non-contact farmers. *Maha. J. Extn. Edn.*, 9: 178-180.

6. Singh, L. and Chatterji, J. 1989. Impact of dairy cooperatives on production, consumption and marketed surplus of milk. *Indian Dairyman*, 40(2) : 28-63.

● ● ●