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Extension Network Utilization Behavior of the Rice Farmers in Sub-Himalayan Terai Region of India

(*Ganesh Das[1] and Bikash Roy[2])
[1]Krishi Vigyan Kendra, West Tripura, ICAR Research Complex for North Eastern Hill Region, ICAR ATARI Zone VII, Umiam, Meghalaya
[2]Krishi Vigyan Kendra Coochbehar, Uttar Banga Krishi Viswavidyalaya, Pundibari, Coochbehar
*Corresponding Author's email: ganesh.ext@gmail.com

Abstract
Farmer networks vary from relatively informal discussion groups to more highly organised, farmer-driven initiatives, such as farming systems groups. Farmers' acceptability and adoptability of different new technologies are not adequate due to less contact with different information sources. Based on the issue, a study was conducted on the extension network utilisation behaviour of the rice farmers in the Terai region of West Bengal. Simple random sampling methods were used for the selection of the respondents. It was found from the study that among the cosmopolite sources, public organisations and mass media were very effective for providing pest and disease control information to the rice farmers, followed by FPO/FPC and e-resources. It was also found from the study that among the cosmopolite channels, farmer training was very effective for providing pest and disease control information to the rice farmers, followed by result demonstrations, Krishi Mela, field days, method demonstrations, and exposure visits.

Keywords: Extension network, utilization behavior, public organization, mass media, FPO, FPC, training

Introduction
A network is a group of interconnected people who interact to exchange information and develop professional and social contacts and relationships. The use of model farmers is a common feature of agricultural extension strategies that seek to diffuse new technologies and practices among smallholder populations in the developing world (Franzel *et al*., 2014). The farmer network is a way for farmers to exchange information, socialise, learn, and connect with peers on a regular, on-going basis. It was found from different study that majority of the farmers uses e-resource information for agricultural knowledge development (Dhaka and Chayal, 2010; Anzu, 2010; Singh *et al*. 2010; Rudroju, 2013). Matthewson *et al*. (2013) found that information use in agricultural sectors improves farming output in a variety of ways. Making informed decisions about what crops to grow, where to sell their produce, and where to acquire inputs is facilitated by providing information on weather trends, best agricultural practices, new scientifically developed technology, and timely access to market information (Bachhv, 2012). Agricultural information, which can contain technical, marketing, social, and legal information, is useful for farmers since it aids them in overcoming their deficiencies in knowledge of some fundamental practices (Owolade, 2012). Consumers in both urban and rural areas are increasingly turning to rice (Oryza sativa L.) as a

significant staple food (Nwanze *et al*., 2006). According to Starasts (2005), an information source is an institution, organisation, or individual who develops or disseminates a message. In order to carry out their daily agricultural tasks, farmers need several kinds of information. The control of pests and diseases, the use of pesticides and fertilisers, the optimal time to plant, the manner of planting, storage, and seed treatment were considered to be the most crucial knowledge requirements for rice farmers in a study by Babu *et al.* (2011). According to Tologbonse *et al*. (2018), farmers' information demands fluctuate depending on their needs about new agricultural technology and innovations, environmental changes, and agricultural policy. But rice farmers have little access to information. Finding and analysing the information are the primary issues. Extension and other agricultural programmes may be better able to target particular farmer groups with the right interventions if they have a better awareness of farmers' information requirements and sources. (Babu *et al*., 2011). Farmer networks can vary from relatively informal discussion groups to more highly organised, farmer-driven initiatives, such as farming systems groups. What they all have in common is that they are self-directed and farmer-driven. Farmers' acceptability and adoptability of different new technologies are not adequate due to less contact with different information sources. Based on the issue, a study was conducted on the extension network utilisation behaviour of the rice farmers in the Terai region of West Bengal.

Methodology

The study was conducted in the Cooch Behar District of West Bengal during 2018–2021. Simple random sampling methods were used for the selection of the respondents. For the selection of farmers, a group meeting was organised at Coochbehar-II, Coochbehar-1, Dinhata-II, and Mathabhanga-II blocks of Coochbehar District, West Bengal. An expost facto research design was used, and random sampling methods were followed for the selection of the sample respondents. The total sampling frame of the study was 113, and the sample size was 100. A structured interview scheduled was used for collection the information on awareness, utilization and effectiveness of different personal cosmopolite sources and channels. The important statistical measures that were used to analyse the research data included frequency and percentage.

Results and Discussion

It was found in the study (table 1) that the majority of the respondents were aware of public organisations (ADA offices), FPO/FPC, and mass media (100%), followed by e-resources (52%), for the sources of agricultural information. The majority of the respondents used FPO/FPC and mass media (100%) as sources of rice pest and disease control information, followed by public organisations (75%), and e-resources (52%). It was observed that public organisations (73.33%) and mass media (68%) were very effective in providing pest and disease control information for rice, followed by FPO/FPC (45.00%) and e-resources (23.07%). The majority of the respondents perceived that e-resources (26.92%) were effective for providing pest and disease control information on rice, closely followed by public organisations (26.66%), mass media (22.0%), and FPO/FPC (15.00%). It was revealed from the study that 34.61% of the respondents perceived that e-resources were not effective for providing rice pest and disease control information, and 15.38% of the e-resource users are not aware of rice pest and disease control information provided by different e-resources. It was found from the study that 15% of the respondents perceived that FPC/FPOs were not effective for providing rice pest and disease control information, and another 15% of the respondents don't know about the role of FPC/FPOs for controlling rice pests and diseases.

Table 1: Awareness, utilization and effectiveness of personal cosmopolite sources for rice pest and diseases control. n= 100

Sl. No.	Source of agriculture information	Awareness		Utilization		Effective in pest and diseases control information of rice							
						Very effective		Effective		Not effective		Don't Know	
		f	%	*f*	%	*f*	%	*f*	%	*f*	%	*f*	%
1	Exposure to public organization (ADA office)	100	100	75	75	55	73.33	20	26.66				
2	Exposure to FPO/FPC	100	100	100	100	45	45	15	15.00	15	15	15	15
3	Exposure to mass media	100	100	100	100	68	68	22	22				
4	Exposure to e resources	52	52	52	52	12	23.07	14	26.92	18	34.61	8	15.38

It was found from the study (table 2) that the majority of the respondents were aware of farmer training and Krishi Mela (100%) as a source of agricultural information, followed by results demonstration (60%), method demonstration (40%), field day (20%), and exposure visit (20%). It was revealed from the study that the majority of the respondents utilised farmer training (80%) for rice pest and disease control information, followed by Krishi Mela (65%), field day (28%), result demonstration (26%), method demonstration (20%), and exposure visit (14%). From the effectiveness analysis of the cosmopolite channel, it was shown that farmer training was very effective for controlling pests and diseases in rice, followed by result demonstration (69.23%), Krishi Mela (69.23%), field day (64.28%), method demonstration (60.00%), and exposure visit (50.00%).

Table no. 2: Awareness, utilization and effectiveness of personal cosmopolite channel for rice pest and diseases control n= 100

Sl. No.	Source of agriculture information	Awareness		Utilization		Effective in pest and diseases control information of rice							
						Very effective		Effective		Not effective		Don't Know	
		f	%	*f*	%	*f*	%	*f*	%	*f*	%	*f*	%
1	Method demonstration	40	40	20	20	12	60.00	6	30	2	10		
2	Farmers training	100	100	80	80	65	81.25	15	18.75				
3	Result demonstration	60	60	26	26	18	69.23	4	15.38	4	15.38		
4	Field day	20	20	28	28	18	64.28	4	14.28	6	21.42		
5	Exposure visit	15	15	14	14	7	50.00	4	28.57	3	21.42		
6	Krishi Mela	100	100	65	65	45	69.23	15	23.07	5	7.69		-

Conclusion

It is concluded from the study that among the cosmopolite sources, public organisations and mass media were very effective for providing pest and disease control information to rice farmers, followed by FPO/FPC and e-resources. It is revealed from the study that among the cosmopolite channel farmers training was very effective for providing pest and disease control information to the rice farmers, followed by result demonstration, Krishi Mela, field day, method demonstration, and exposure visit. The study was conducted only with rice

farmers and took only single information. So, there is scope to conduct this study with a greater number of crops, different types of information and technology, and a larger geographical area. The study may help the extension workers select appropriate sources and channels for technology and knowledge dissemination.

References

1. Anzu, S. (2010). ICT vital for agricultural development. The National, Boroko, NCD.
2. Babu S. C., Glendenning C. J., Asenso-Okyere K., Govindarajan S. K. (2011). Farmers' information needs and search behaviors: Case study in Tamil Nadu. India: International Food Policy Research Institute.
3. Bachhv N.B. (2012). Information needs of the rural farmers: a study from Maharashtra India a Survey. *Library Philosophy and Practice* (e-journal). 866. https://digitalcommons.unl.edu/libphilprac/866
4. Dhaka, B. L. and Chayal, K. (2010). Farmers' experience with ICTs on transfer of technology in changing Agri-rural environment. *Indian Res. J. Ext. Edu*., 10 (3): 114-118
5. Franzel S., Sinja, J. and Simpson, B. (2013). Farmer-to-farmer extension in Kenya: the perspectives of organizations using the approach. 10.5716/WP14380.PDF.
6. Matthewson, M., Fery, M., Powell, M. (2013) Creating farmer networks. A toolkit for promoting vibrant farm communities. PNW 638. A Pacific Northwest Extension Publication, Oregon State University, University of Idaho, Washington State University
7. Nwanze, Kanayo & Mohapatra, Savitri & Kormawa, Patrick & Keya, Shellemiah & Bruce-Oliver, Samuel. (2006). Rice Development in Sub-Sahara African. J*ournal of The Science of Food and Agriculture*, 86 (5), pp. 675-677 10.1002/jsfa.2415
8. Owolade, E. & Arimi, Kayode. (2012). Information-Seeking Behavior and Utilization among Snail Farmers in Oyo State, Nigeria: Implications for Sustainable Animal Production. *Journal of International Agricultural and Extension Education*. 19(3) 10.5191/jiaee.2012.19304.
9. Rudroju, V (2013). *Awareness, accessibility and utilization pattern of information and communication technology (ICT) projects by farmers of Belgaum District*, M.Sc (Ag) Thesis, University of agricultural sciences, Dharwad, India.
10. Singh, S.; Bharat, P.; Bharat, M. and Rai, D. P. (2010). Sustainable models of Information Technology for agriculture and rural development. *Indian Res. J. Ext. Edu*., 10 (1): 20-23.
11. Starasts, Ann Maree Taylor. (2005). *Battling the knowledge factor: a study of farmers" use of the internet to support information seeking, learning and knowledge processes in Queensland.* PhD Thesis, School of Natural and Rural Systems Management, The University of Queensland.
12. Tologbonse D., Fashola O., Obadiah M. (2008). Policy issues in meeting rice farmers agricultural information needs in Niger state. *Journal of Agricultural Extension*. 12(2), 84-94.