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Information Input Pattern and Information Needs of Tribal Farmers of Arunachal Pradesh

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ABSTRACT

Access to the appropriate agricultural information is a difficult task for the farmers of North-East India. Due to inadequate dissemination of advanced farm information and technologies, agriculture exhibits low productivity and creates food insecurity. In this connection, a research study was conducted to assess the farm information input pattern and information needs of 60 farmers of Yagrung, Tekang and Kangkong villages of East Siang District, Arunachal Pradesh during August and September, 2007. From the findings it is concluded that overwhelming majority of the tribal farmers were not having access to the advanced agricultural information. Considerable proportion of farmers had regular radio listening behaviour for getting farm related information. Most of the farmers require information on all farm based activities. Pest and diseases management information for the major crops like paddy and khasi mandarin crops were demanded by a greater proportion of farmers.

Access to the appropriate information for the agriculture and rural development becomes difficult task for the farmers of North-East India. Due to inadequate scientific farm information delivery to the tribal farmers, agriculture exhibits low productivity in North-East India in general and Arunachal Pradesh in particular. Disappointing scientific information dissemination makes the farming less remunerative and also creates food insecurity crisis. Further, the upliftment of tribal economy relies mainly on the agriculture production. To increase the farm production, the tribal farmers need to be informed on recent scientific farm innovations. Farm information and technology dissemination to the tribal farmers provides opportunities for their self-development, improves existing knowledge, skills and enhances their capability. In this connection, Information and Communication Technologies (ICTs) hold lot of promise to deliver agricultural knowledge to the tribal farmers. In order to provide agricultural extension services through ICTs, it is necessary to assess the information needs of the farmers so as to prepare and deliver specific messages or technologies and also to develop ICT based training modules as per the farmers' requirements. Hence, a research study was carried out with the following objectives;

1. To know the information input pattern of the tribal farmers
2. To find out the tribal farmers' information needs

METHODOLOGY

Locale of the Study: The study was conducted in the selected three villages namely; Yagrung, Tekang and Kangkong of Pasighat circle of Esat Siang District of Arunachal Pradesh.

Selection of farmers: Sixty tribal farmers were randomly selected from three villages for the individual survey.

Data collection: Data were collected by using pre-tested structured interview schedule.

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RESULTS AND DISCUSSION

Results indicated that most of the farmers were getting agriculture related information from the Radio. The Farm and Home programme regularly broadcast by the AIR, Pasighat. Few farmers were getting information from agriculture and horticulture departments. This is due to the fact that there is inadequate technical manpower in the agricultural developmental departments. Further, tribal farmers' land holding is scattered and located far away from the villages, hence, for extension personnel it is difficult to visit number of farms. Further, the developmental departments run with regular constraints such as inadequate technical manpower, lack of standardized location specific technologies, lack of training facilities for extension personnel, lack of conveyance facilities, lack of essential teaching & communication equipments (AV aids & ICTs), non-availability of inputs in time and lack of quality inputs. The Krishi Vigyan Kendra (KVK), East Siang district was started during 2006, which runs with few Subject Matter Specialists (SMS) and conducts limited number of extension activities. The private sector such as agri-business firms, input dealers, print media and NGOs involvement in agriculture technology transfer was negligible. Forty and thirty six per cent of farmers were regular and occasional listeners of radio, respectively. The radio programme on "Farm and Home" was regularly broadcast during 5 pm to 6 pm. Twenty eight per cent of listeners expressed that the farm related programme was useful for them. The radio programmes were broadcast in *Adi* tribal dialect, and hence an overwhelming majority of the farmer were radio listeners. In contrast to this, only 4 and 14 per cent of the farmers were regular and occasionally viewing farm related programmes in TV, which is due to the fact that majority of the tribal farmers were not well acquainted with Hindi language.

Table 2, indicated that majority of the farmers expressed that they needed all the information related to farming. This was mainly because of inadequate scientific information and technology dissemination among tribal

Table 1. Extension agency contact and agriculture information input pattern of farmers

(N=60)

Sl. No.	Information source	Frequency of contact			Adequacy of information			Usefulness of information		
		R %	O %	N %	A %	LA %	NA %	U %	LU %	NU %
1	Progressive farmers/VL/OF	0	4	96	0	4	0	0	4	0
2	Agril./ Horti. Field Officers	8	10	78	4	12	2	4	14	0
3	ADO/HDO	6	8	86	6	8	0	6	8	0
4	DAO/ DHOs	8	0	92	4	2	2	4	4	0
5	Scientists: ICAR / KVK	0	0	100	0	0	0	0	0	0
6	CHF Professors	6	6	88	6	6	0	6	4	0
7	EP - Banks	0	6	94	0	2	6	0	6	0
8	EP - NGOs	0	6	94	0	6	6	0	6	0
9	EP - Co-op soc., Assoc.	0	6	94	0	6	0	0	6	0
10	EP - Input agencies	0	0	100	0	0	0	0	0	0
11	Ag. Business firms/ MNCs	0	0	100	0	0	0	0	0	0
12	Farm magazines/ Journals	0	0	100	0	0	0	0	0	0
13	News paper	0	0	100	0	0	0	0	0	0
14	Radio	40	36	24	30	28	16	28	2	10
15	Television	4	14	82	2	12	4	0	10	6

(VL-Village Leaders, OF-Other Farmers, EP-Extension Personnel, R-Regular, O-Occasional and N – Never; A- Adequate, LA-Less Adequate, and NA- Not Adequate; MU- Much Useful, U- Useful and NU- Not Useful)

Table 2. Information needs of tribal farmers

(N-60)

Sl. No.	Areas of Information	Percentage of farmers
1	Diseases and pest management	94
2	Suitable crop varieties	92
3	Package of practices	92
4.	Announcements related to the farmers training programmes	90
5	Irrigation/ drip irrigation	86
6	Farm credit/ subsidy schemes/	86
7	Crop Insurance	86
8.	Government schemes on Agriculture, horticulture, processing	84
9	Inputs (seeds, planting materials, fertilizer etc.,)	80
10	Piggery	78
11	Post Harvest Techniques	76
12	Farm implements/ machinery	76
13	Market information	70
14	Weather information	68
15	Soil & water conservation	68
16	Organic farming	66
17	Fertilizer application	64
18	Intercultural operations	64
19	Inter cropping	64
20	Poultry	64
21	Animal husbandry-Dairy	62
22	Fishery	60
23	Agro-forestry methods	56
24	Input dealers' address	54
25	Vermi-compost Preparation	40
26	Bio-fertilizer	38
27	Medicinal Plants	34
28	Mushroom Production	32
29	Bamboo cultivation	30
30	Sericulture	26
31	Apiculture	26
32	Integrated Farming system	24

farmers. Due to inadequate technical manpower in the agricultural developmental departments and also lack of location specific research information created information scarcity among the farmers.

From the results, an overwhelming majority of tribal farmers expressed desire to have information on diseases and pest management, suitable crop varieties, package of practices and announcements related to the farmers' training programme.

Table 3 revealed that an overwhelming majority of tribal farmers need information on pest management (92%), disease management (88%), manures & fertilizer management (78%) and followed by seed treatment

Table 3. Farmers' information needs in paddy crop

(N-60)

Sl. No.	Cultivation Practices	Farmers (%)
1.	Varieties	64
3.	Seed treatment	72
4.	Nursery management	48
5.	Planting Method	4
6.	Irrigation and water management	52
7.	Manures & Fertilizer management	78
8.	Herbicide application	50
9.	Weeding	44
10.	Thinning	52
11.	Pest management	92
	1. Stem borer	92
	2. Paddy case worm	88
	3. Leaf folder	88
12.	Disease management	88
	1. Sheath blight	88
	2. Rice Tungro virus	50
	3. Helminthosporium leaf spot	44
13.	Physiological disorders/Nutrient deficiency	12
	1. Micro-nutrient deficiency	12
	2. Zinc deficiency	12
14.	Harvesting	
15.	Storage	62
16.	Cropping System	26

Table 4. Farmers' information needs in madarin orange

(n-19)

Sl. No.	Subject matter	Farmers (%)
1.	Varieties	93.75
2.	Propagation methods	87.50
3.	Nursery management	87.50
4.	Planting Method	87.50
5.	Irrigation and water management	87.50
6.	Manures & Fertilizer management	93.75
7.	Herbicide application	75.00
8.	Weeding	18.25
9.	Pruning	18.25
10.	Inter cropping	62.50
11.	Mulching	18.25
12.	Pest management	100
	1. Citrus trunk borer	100
	2. Fruit sucking moth	100
	3. Citrus shoot borer	81.25
14.	Disease management	81.25
	1. Citrus sooty mould	81.25
	2. Citrus canker	81.25
	3. Pencillium fruit rot	25.00
	4. Alternaria fruit rot	25.00
15.	Parasite-loranthus	18.25
16.	Harvesting	18.25
17.	Packaging & Processing	62.50
18.	Rejuvenation	18.25

(72%). Among the pests, paddy stem borer, case worm and leaf folder was the common problems among the surveyed farmers. The sheath blight disease was commonly expressed by the farmers

All the mandarin orange growing farmers were expressed information needs on pest management and exclusively to control citrus trunk borer and fruit sucking moth (Table 4). Further, majority of farmers expressed desire to learn the scientific and technological information on complete crop production and also processing aspects.

CONCLUSION

From the findings it was concluded that overwhelming majority of the tribal farmers were not having access to the advanced agricultural technological information. Considerable proportion of farmers had regular radio listening behaviour for getting farm related information. Most of the farmers required information on all farm based activities. Pest and diseases management information for paddy and khasi mandarin crops were demanded by greater proportion of farmers. The implications and recommendation of the study are as following :

1. Regular awareness campaign, field demonstration, exposure visits and training on pest and diseases management measures in paddy and khasi mandarin crops need to be conducted.

2. Large numbers of rural households possess radio and they also have regular radio listening behaviour. Hence, radio need to be used as a prime communication method for farm information dissemination among the tribal farmers.