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Rana Bahadur Rawal
PhD Scholar, Mewar
University, Rajasthan, India

Dr. Binod Bhatta
Adjunct Professor, Faculty of
Forestry, Agriculture Forestry
University, Hetauda,
Makawanpur, Nepal

Knowledge of Market Price Information System of Non-timber forest product among usufructs of Nepal

Rana Bahadur Rawal, Binod Bhatta

Abstract

Market price information system is process to gather, review and widely disseminate the information of market and price of specific goods and services. This is the age of technology so gradually people are accessing the online communication and information from distance. People try to collect the information from online and print media as well as from the interpersonal communication also. The study aims to identify the knowledge of market price information system (MPIS) of non-timber forest products (NTFPs) among the usufructs of mid-western region of Nepal. Three districts were selected comprising the high mountain, hill and plain areas. Total 466 respondents participated in the study. The study found that the majority (95.10%) have heard about the MPIS of NTFPs whereas very few have got information from the formal channel. The available information are not sufficient to know the market size and real price of NTFPs so respondents not felt the effectiveness of current practice of MPIS.

Keywords: Knowledge, Market Price Information System (MPIS), Nepal, Non-timber Forest Product (NTFPs), Usufructs

Introduction

Market price information system helps farmers' choice of what to produce, how much to sell, where to sell. The important contribution of MPIS is to sensitize the sellers and buyers about the goods. Here, the study has focused on the MPIS of non-timber forest products of Nepal. Nepal is rich country for the natural resources. Forest is one of the reliable source of income for the rural communities. Most of the rural farmers depend on the forestry related products. Timber and non-timber forest products are used in the daily life. MPIS of NTFP is new concept gradually promoting in Nepal. Because of the lack of information of NTFP, its market value and price; various sellers used to sell their NTFP in low price. Market price is determined by mutual understanding of sellers and intermediate buyers.

There is important role of MPIS to increase the income of usufructs. Jobber and Rainbow defined MKIS as a system in which marketing information is formally gathered, stored, analyzed, and distributed to managers in accordance with their informational needs on regularly planned basis. According to this definition, the MKIS is built on the identifying information needs for marketing manager to present relevant information when, how and where that manager requires (Jobber & Rainbow, 1977). Management Information System (MIS) is basically concerned with the process of collecting, processing, storing and transmitting relevant information to support the management operations in any organizations. Management information system is kind of organizational information computer systems, that take internal information from operating processing system and summaries them to Meaningful and useful forms as management reports to use in performing management duties. Management information system is one of the major computer based information systems. Its purpose is to meet the general information need of all the managers in the firm or in some organizational subunit of the firm. Management information system is a collection of people, tools, procedures and software to perform various business tasks at various levels in the organization (Al-Mamary, Shamsuddin, & Aziati, 2014). Marketing information system as a computerized system that is designed to provide an organized flow of

Correspondence:
Rana Bahadur Rawal
PhD Scholar, Mewar
University, Rajasthan, India

information to enable and support the marketing activities of an organization. Marketing information system prepares data and makes them available when the need for such data arises for better decision (Sunday, Felix, & Anyadighibe, 2013). F. Kotler and K.L. Keller noted that the marketing information system of an organization should be established by taking into account the wishes of the marketing managers, their real needs, and economic feasibility. Useful step in solving this problem may be the creation of an internal committee on the marketing information system, which is mandated to carry out the necessary coordination activities with the departments and all stakeholders (Kotler & Keller, 2006).

MIS information can be used by farmers both for advocating for more producer-friendly policies (through farmers' organization) and to guide their production and marketing decisions (choice of what, when and where to sell). In addition, as small farmers' market power is hindered by their lack of information on price levels and changes at different points of the marketing chain, strengthening smallholder farmers' access to information can improve farmers bargaining position (Benz, Galtier, Egg, Lançon, & Meijerink, 2011).

In the Nepalese context, there are no adequate research done to explore the status of market price information system, its practice and knowledge among the usufructs about the source of market price information. Because of the inadequate infrastructure development, rural people have no easy access on the source of information of market and price of their products. There is domination of middlemen in business sectors who visit the community of farmers to purchase their product. Middlemen play the significant role to determine the price. In the most of the case, real producers or sellers hardly get the real price of their goods because of the lack of information. So considering, the importance of MPIS, the study has

identified the knowledge of usufructs about the market price information system of non-timber forest products.

Materials & Method

The study is based on the descriptive design which identified about the knowledge of usufructs about the market price information system (MPIS). MPIS provides the knowledge of price and market of specific goods. The study has identified the market and price by administrating the structured questionnaire among the 466 respondents of three districts: Banke, Salyan and Dolpa. Simple random sampling technique was used to select the respondents.

Result & Discussion

The study had selected the three districts from mid-western region of Nepal comprising the three layers: High Mountain, hill and plain area. Total 466 respondents participated in study, among them 16 from Dolpa (High Mountain), 270 from Salyan (Hill) and 180 from Banke (Plain area). As the objective of this study, the following data are presented in tabular form which explains about the knowledge of respondents about the MPIS and NTFPs.

Heard about MPIS of NTFPs

As the objective of this study; respondents were asked about their knowledge of MPIS of NTFPs. Table No. 1 shows the percentage of the respondents who have heard about MPIS of NTFPs. Among the total 466 respondents, 95.1 percent of the respondents have heard about MPIS of NTFPs. In total, 99.3 percent of the respondents from Salyan, 90.6 percent of the respondents of Banke and 75 percent of the respondents from Dolpa have heard about MPIS of NTFPs. In case of the Retailers, 100 percent of them have heard of MPIS of NTFPs. Similarly 97.3 percent of male and 92.9 percent of the female respondents have heard of MPIS of NTFPs.

Table 1: Heard about MPIS of NTFPs

		District			Total	Gender		Total
		Banke	Salyan	Dolpa		Female	Male	
Yes	N	163	268	12	443	152	291	443
	%	90.60%	99.30%	75.00%	95.10%	92.10%	96.70%	95.10%
No	N	17	2	4	23	13	10	23
	%	9.40%	0.70%	25.00%	4.90%	7.90%	3.30%	4.90%
Total	N	180	270	16	466	165	301	466
	%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
		Value	df	Asymp. Sig. (2-sided)		Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square		31.653 ^a	2	0.000		4.716 ^a	1	0.03

Source: Field Survey, 2017

The statistical analysis of Pearson Chi-Square test shows that there was significant association between the study districts regarding the knowledge (heard) of market price information system of non-timber forest product because the P = 0.000 which is less than .05 significant level. Similarly, there was significant association between male and female also in their knowledge because the P = 0.03 which is less than 0.05 significant level.

From the perspective of level of awareness, almost all usufructs were aware about the market price information system of non-timber forest products but the knowledge was not sufficient because they were not aware about the potential market of NTFPs and its real price value in different markets. One of the respondent of Dolpa district

shared that he was aware that the value of NTFPs was better in Banke and Kathmandu but he had no idea who will buy, where he can stay, what is the legal process to transport the NTFP from Dolpa to Banke or Kathmandu. So, because of the lack of adequate knowledge, he had to sell in minimum price in local market. So, just hearing is not adequate to gain the better amount of NTFPs.

Source of Information of MPIS of NTFPs

This is the age of communication so people can get quick information from one corner to another corner. People use online media for the information without any delay but every people have no equal access on online media or communication. In such circumstances, they contact their

friends, neighbor or any relevant office and visit physically to collect the information.

In relation to the information of NTFP, forest user groups were asked about the way of getting information. It is the common problem of all types of producers and consumers to know the real price of service and good. Because of the lack of proper information of market price, the real farmers

and producers are not getting the real price of their goods. The data presented in the Table No. 4.9 shows that in total 63.3% heard about the MPIS of NTFP from their friend. Similarly, 56.9% got from the CFUG and very few people (10.1%) reported the name of government office as a source of information.

Table 2: Source of Information of MPIS of NTFPs

	Total		District						Gender			
			Banke		Salyan		Dolpa		Female		Male	
	N	%	N	%	N	%	N	%	N	%	N	%
Friends	295	63.3	60	33.3	223	82.6	12	75.0	95	57.6	200	66.4
CFUG	265	56.9	153	85.0	107	39.6	5	31.3	107	64.8	158	52.5
Government office	47	10.1	1	.6	43	15.9	3	18.8	11	6.7	36	12.0
NGO staff	31	6.7	15	8.3	15	5.6	1	6.3	10	6.1	21	7.0
Newspapers/magazines	20	4.3	15	8.3	5	1.9			7	4.2	13	4.3
Radio	16	3.4	9	5.0	6	2.2	1	6.3	3	1.8	13	4.3
Wholesale business man	16	3.4	3	1.7	10	3.7	3	18.8	2	1.2	14	4.7
From CFUG president	7	1.5	4	2.2	0	0	3	18.8	3	1.8	4	1.3
Internet/ website	3	.6	1	.6	2	.7	0	0	0	0	3	1.0
From Bharta	2	.4	2	1.1	0	0	0	0	0	0	2	.7
Posters/Brochures/Factsheets	1	.2	1	.6	0	0	0	0	1	.6	0	0
Total	466	100.0	180	100.0	270	100.0	16	100.0	165	100.0	301	100.0

Source: Field Survey, 2017

Some of the respondent got information from NGO staff, newspaper, radio, business man, internet and other pamphlet and brochures. It is indicated from the findings that there was very less practice of collecting the information from formal process; majority reported that they had collected the information from friends. In our Nepalese culture, friends are more reliable and easy for information sharing; it might have effect on the behavior of usufructs also.

Types of Information received from MPIS of NTFP related offices/website/communication board

There are varieties of information available in website of concerned organizations that used to provide the information of forest and forest products. One respondent of Salyan district said that information published in website was not effective and useful for the illiterate and just illiterate people because of the lack of knowledge of web-search and low competency of English language. A previous study also highlighted the importance of education to access in the market information system. The study of Magesa, Michael and Ko has stated that illiteracy affects one’s ability to access important agricultural market information (such as price updates) and fair marketing commitments. Illiteracy does not involve inability to read and write only, but also inability to interpret agricultural market information. The finding of study conducted by

Magesa, Michael and Ko has indicated that 23 (10.65%) respondents did not attend or complete primary education. It is difficult for illiterate respondents to account for their production and even enter into a written trading contract (Magesa, Michael, & Ko, 2014).

The below Table No. 3 shows the types of information respondents get from MPIS of NTFP related offices/website/ communication board. Majority of the respondents (92.3 %) reported that they get the information about cultivation of the NTFPs from MPIS Office/website/communication board followed by information about collection of the NTFPs (31.3%), information about seed of the NTFPs (22.7%), information about storage of NTFPs (16.7%), information about market of the NTFPs (4.1%), and information about price of the NTFPs (2.8%). This proportion is similar in Salyan. In case of Banke, 88.9 percent of the respondents get information about cultivation of the NTFPs followed by information about seed of NTFPs (47.2%) and information about the collection about NTFPs (26.7%). Similarly in Dolpa similar percentage (43.8%) of the respondents reported that they get the information about cultivation and collection of NTFPs followed by information about storage of NTFPs (31.3%) and market of NTFPs (12.5%). In case of the male and female respondents it is seen that both male and female respondents have similar pattern of knowledge.

Table 3: Types of Information received from MPIS

	Total		District						Gender			
			Banke		Salyan		Dolpa		Female		Male	
	N	%	N	%	N	%	N	%	N	%	N	%
About cultivation of the NTFPs	430	92.3	160	88.9	263	97.4	7	43.8	148	94.9	275	93.5
About collection of the NTFPs	145	31.1	48	26.7	90	33.3	7	43.8	46	29.5	92	31.3
About seeds of the NTFPs	106	22.7	85	47.2	21	7.8	0	0	40	25.6	66	22.4
About storage of the NTFPs	78	16.7	17	9.4	56	20.7	5	31.3	24	15.4	49	16.7
About market of the NTFPs	19	4.1	12	6.7	5	1.9	2	12.5	5	3.2	12	4.1
About price of the NTFPs	13	2.8	5	2.8	4	1.5	4	25.0	2	1.3	7	2.4
About drying	2	.4	0	0	2	.7	1	6.3	1	.6	1	.3

About herbal spices	2	.4	0	0	1	.4			0	0	1	.3
About herbicide	1	.2	1	.6	0	0	0	0	1	.6	0	0
Total	466	100.0	180	100.0	270	100.0	16	100.0	156	100.0	294	100.0

Source: Field Survey, 2017

The study has discussed with usufructs to know their main interest to search the information of NTFPs. In its response, majority of respondents shared that their main interest is to know the market price of non-timber forest product but result shows that only 2.4% stated that they got price information and only 4.1% got the information of market. The participants said that they did not get the adequate information of market and price which was most important for them.

Sufficiency of information provided in MPIS about NTFPs

Table No. 4 shows the information provided in MPIS NTFP related offices/website/communication board is sufficient to get the information about NTFPs. Among the respondents majority of the respondents with 52.8 percent

reported that information provided in MPIS NTFP related offices/website/communication board is somewhat not sufficient to get information about NTFPs followed by neither sufficient nor not sufficient (18.9%), not sufficient (16.7%), somewhat sufficient (11.4%) and only 1 respondents reported that the information provided in MPIS NTFP related offices/website/communication board are sufficient to get information about NTFPs. This proportion was similar with both Banke and Salyan districts and among CFUGs and retailer. While in case of Dolpa, 50 percent of the respondents said that the information provided in MPIS NTFP related offices/website/communication board are not sufficient at all followed by somewhat not sufficient (37.5%), and somewhat sufficient (12.5%). No respondents in Dolpa reported the information is very much sufficient.

Table 4: Sufficiency of information provided in MPIS about NTFPs

		District			Total	Gender		Total
		Banke	Salyan	Dolpa		Female	Male	
Very much sufficient	N	0	1	0	1	1	0	1
	%	0.0%	.4%	0.0%	.2%	.6%	0.0%	.2%
Somewhat sufficient	N	22	29	2	53	17	36	53
	%	12.2%	10.7%	12.5%	11.4%	10.3%	12.0%	11.4%
Neither sufficient nor not sufficient	N	40	48	0	88	33	55	88
	%	22.2%	17.8%	0.0%	18.9%	20.0%	18.3%	18.9%
Somewhat not sufficient	N	78	162	6	246	90	156	246
	%	43.3%	60.0%	37.5%	52.8%	54.5%	51.8%	52.8%
Not sufficient at all	N	40	30	8	78	24	54	78
	%	22.2%	11.1%	50.0%	16.7%	14.5%	17.9%	16.7%
Total	N	180	270	16	466	165	301	466
	%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Field Survey, 2017

The finding indicates that usufructs were not happy from available market price information given by the NTFP related offices, website or notice board of government authority such as district forest office (DFO) and Non Governmental Offices: Jadibuti Association of Nepal (JABAN), Asia Network on Sustainable Agriculture and Bioresources (ANSAB) etc. Usufructs shared that the available information had not covered all types of NTFPs and also not given the detail information about the market of different types of NTFPs and their real market price. It is commonly observed in all study districts that usufructs are not linked to markets and to traders and thus they know a little about the real situations in the markets. Farmers or collectors don't have access to know the prevailing prices of the produces at the markets. All these lead usufructs to depend on the information provided by local vendors.

Usefulness of information provided in MPIS NTFP related offices/website/communication board

Of the total respondents the highest proportion of the respondents reportedly said that MPIS of NTFP related offices/website/communication board should include information about cultivation of the NTFPs (93.3%). The need of including information about cultivation of NTFPs in MPIS of NTFP related offices/website/communication board is express by all the respondents in all three study district. While in case of Dolpa significant number of respondents also express the need of the information about NTFPs market is necessary to be include in MPIS of NTFP related offices /website/communication board.

Table 5: Usefulness of information provided in MPIS of NTFP related offices/website/communication board

		District			Total	Gender		Total
		Banke	Salyan	Dolpa		Female	Male	
About cultivation of the NTFPs	N	160	265	10	435	154	281	435
	%	88.9%	98.1%	62.5%	93.3%	93.3%	93.4%	93.3%
About collection of NTFPs	N	6	3	0	9	2	7	9
	%	3.3%	1.1%	0.0%	1.9%	1.2%	2.3%	1.9%
About quality of NTFPs	N	2	2	0	4	0	4	4
	%	1.1%	.7%	0.0%	.9%	0.0%	1.3%	.9%

About time when NTFPs expire	N	3	0	0	3	1	2	3
	%	1.7%	0.0%	0.0%	.6%	.6%	.7%	.6%
About market	N	9	0	6	15	8	7	15
	%	5.0%	0.0%	37.5%	3.2%	4.8%	2.3%	3.2%
Total	N	180	270	16	466	165	301	466
	%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Field Survey, 2017

As from the discussion with respondents, market information system is important to collect the information of market and price of non-timber forest products. Different scholars have also argued that access to markets and marketing information can help to develop competitive markets which can improve the economy of both the producers and the nation at large. Different studies have revealed that smallholder farmers in Tanzania were not prepared to respond to free markets challenges. This is because farmers have little access to markets and also lack marketing information (Kawa & Kaitira, 2007). To help these farmers access the markets, it is encouraged the development of supporting market institutions and provision of adequate essential public goods and services such as technological and information services, marketing services, etc. (Amani, 2005). Different studies acknowledged the necessity of helping rural smallholder farmers to access markets. Accordingly, this may involve collection of related marketing information, processing them, storing them and disseminating them to the intended beneficiaries. This will eventually link smallholder farmers to markets (URT, 2008). The situation and experience of usufructs found similar to the smallholder farmers of Tanzania. There is high possibility to increase the productivity and income of usufructs if they will have easy access of market and market information.

Conclusion

From the discussion with respondents, it is found that more than 95% respondents have heard about the market price information system but more than 65% have heard from their friends. It indicates the use of informal channel is very high in comparison of formal channel. It also indicates the lack of access of usufructs on the formal channel. In the study areas, somewhere the price list of NTFPs are kept in public places also but it is not so reliable because price is always fluctuating on the basis of quantity and quality of production and its demand in market. It is interesting that only 4.1% got information of market of NTFP and 2.4% got information of price of NTFP but majority (93.5%) got the information of cultivation of NTFPs which becomes the less important for usufructs than the information of market and price of NTFPs. Less than 12% felt the sufficiency of available market price information system to know about the NTFPs. Similarly, only 3.2% said that the available information system was useful to know the market price of NTFPs.

It is known that the available information system of NTFPs is not so effective to aware the usufructs about the real value of their product which has significant effect on their economic status. Effectiveness of MPIS is not only important for knowledge building but also important to improve the economic status of usufructs. There is need to enhance the access of usufructs in formal channel and need to provide the adequate information through the information system. It will be important to sustain the forest and forest's product. So there is need to know the

current practice of market price information system to know the market and price of NTFPs and it is also important to know that how one seller determines the price of s/his product.

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