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Agricultural Marketing Information System– A Case Study of Traders in Meghalaya

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ABSTRACT

Agricultural marketing information is an essential input for boosting agricultural growth in rural areas. An attempt has been made to identify the various pattern of awareness, sources, utilization and its benefits, constraint, and expectations to agricultural marketing information(AMI) among the traders in the study area of two regulated markets namely, Mawiong Regulated Market in Mylliem Block of East Khasi Hills and Garobadha Regulated Market in Selsella Block of West Garo Hills district of Meghalaya.The sample size consisted of 40tradersfrom both selected regulated market areas were selected for the study based on purposive and random sampling technique.From the findings of the research study, It was revealed that the degree of awareness on prices in local markets placed the I Rank (first) followed by arrivals in local markets, arrivals and prices in reference markets (III Rank). It was observed that traders were always relied on contacts in other market (90%) and fellow traders (75%) for market information. Newspaper placed the III rank on degree of awareness of AMI sources among the traders. It was clearly seen that the agricultural market information was utilized by traders in deciding price to be quoted (I Rank), followed by the quantity to be purchased (II Rank) and the quantity to be store (III Rank). It was observed that traders were most benefited by changing time of sale (90%), followed by mode of storage (85%). About 75 per cent of traders expressed that AMI was not available in required form.The expectation aspects of traders on AMI indicated that the prices in other nearby markets (95%), future price projections (87.5%) and quality wise prices (75%) were given more priority by traders in the study area. It is necessary toensured flow of regular and reliable data to producers, traders and consumers to derive maximum benefit of their sales and purchases.Emphasis should be given on delivery mechanism of information, so that market information reaches timely to the end users in the hilly regions of Meghalaya.

Keywords: Agricultural marketing information, regulated market, delivery mechanism, trader, Meghalaya.

Indian agrarian economy is characterised by low degree of market integration and connectivity, accessibility of reliable and timely information by the farmers on prices of commodities. To fulfill the expectations of the conscious buyers, price and quality, globalisation and liberalisation and maintain the viability of small and marginal farm to retain them in the farming, application of technology in agriculture has become inevitable (Shalendra *et.al.*, 2011). The market liberalization and globalization are driving the Indian agriculture out of the staple –based subsistence system towards a high value, information-intensive commercial enterprise. Today, the farmers are increasingly looking for frequent interactions with various information sources not only to carry out their farming and marketing tasks efficiently, but also to ensure delivery of safe and quality agricultural products to consumers. The emerging information requirement is demand-driven, as opposed to supply-led public information system during the green revolution era. The challenge is to improve the accessibility of farmers

to information and its relevance in the agricultural development (Adiguru, *et.al.,* 2009).

Improved information should enable traders to move produce profitably from a surplus to a deficit market and to make decisions about the viability of carrying out storage where technically possible. The market price information help actors in agricultural value chain make informed decisions that promote efficient production and trade. It is especially valuable for the producers that sell in local and regional markets, helps producers to negotiate with traders, determine what markets to sell to, store their crops until price increases or even plan for future crops (Jairath and Yadav, 2012). The Agricultural Marketing Information System (AMIS) reduces business risks of farmers, sellers and traders (Jairath, 2004). Lack of standardization, duplication of efforts inadequate network for information flow, lack of coordination and integration among various agencies are some of the limitations of Market Information System (Shreshtha, 2003).Marketing Information System (MIS) is defined as a process of gathering, processing, storing and using information to make better marketing decisions and to improve marketing exchange (Nickels, 1978, 1986).

Market information is a service usually operated by the public sector, which involves the collection on a regular basis of information on prices and, in some cases quantities of widely traded agricultural products from rural assembly markets, wholesale and retail markets, as appropriate and dissemination of this information on a timely and regular basis through various media to farmers, traders, government officials, policy makers and others, including consumers." (Anonymous, 2003). Improvement of agricultural market information services was necessary for domestic market efficiency and to integrate domestic agricultural market with regional and international market for sustainable development of agriculture sector and to ensure country's long run food security (Rahman, 2003).

The specific objectives of the study are as follows:

1. To find out the various sources of existing agricultural marketing information system among the different categories of sample traders.
2. To study the pattern and extent of dissemination and utilization of existing agricultural marketing information by different categories of sample traders.
3. To identify the constraints in the agricultural marketing information system faced by sample traders.
4. To suggest appropriate policy measures to stakeholders for implementation of agricultural marketing information system in Meghalaya.

Methodology

As per the set objectives of the study, the data from primary as well as secondary sources were collected. The primary data from sample traders was collected by personal interview method by using pre-tested structured schedule prepared for the purpose. The data on area, production, arrivals, prices, exports, etc. were elicited from secondary sources. Data pertaining to the agricultural year 2012-13 was considered with specific objectives.Out of eleven districts of Meghalaya, East Khasi Hills and West Garo Hills district was selected purposively for this study for easy accessibility of agricultural marketing information. To study the existing agricultural market information system (AMIS) and its dissemination, two regulated markets namely, Mawiong Regulated Market in Mylliem Block of East Khasi Hills and Garobadha Regulated Market in Selsella Block of West Garo Hills district were selected purposively. Interview method was developed to get complete and reliable information with the help of well structured schedule.To study the sources of agriculture market information and their utilization among the 40 traders from selected market area were selected for the study, based on random sampling technique. To understand the market information system for agricultural commodities, both tabular and econometric models were designed to analyze the data of the study. To find out the nature, extent, sources, utilization and expectations of market information system by traders, tabular analysis with simple averages, percentages, etc, were computed. The traders responses was scored giving a weight of 3 for 'always', 2 for 'sometimes' and 1 for 'rarely'.

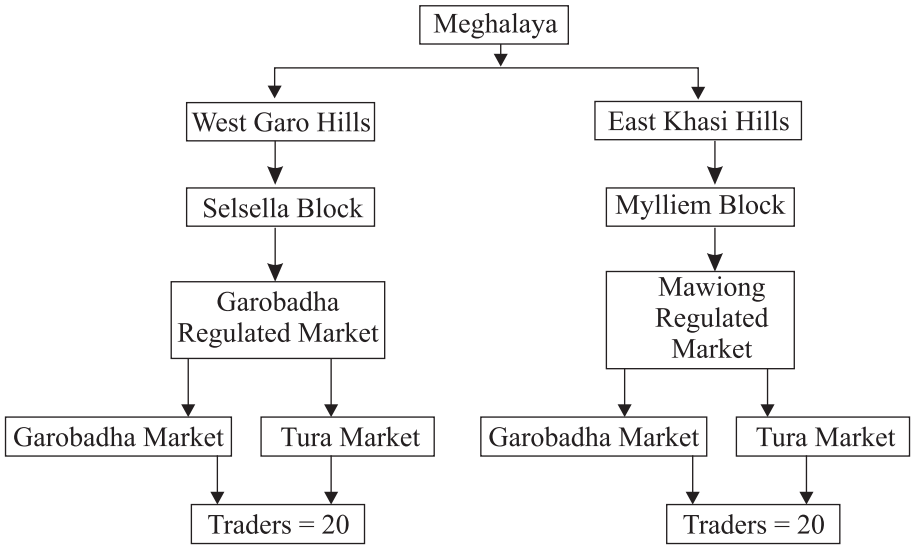


Figure 1. Study Area and Sampling Design – At A Glance

Results and Discussion

Socio-economic characteristics of agricultural traders:

The socio-economic characteristics of sample traders as presented in table 1, indicated that about 50 per cent of the traders were in the age group of 36-50 years where as 35 per cent of traders were young (upto 35 years) and 15 per cent were more than 51 years old. It was found that about 92.5 per cent are male traders. About 77.5 per cent traders were literate and above, where as 22.5 per cent traders are illiterate. It was observed that the experience in agricultural marketing among 57.5 per cent traders were upto 10 years, where as 30 per cent of traders had 11-20 years of experience and 12.5 per cent traders had more than 21 years of experiences in relation to agricultural marketing.

Table 1. Socio-economic characteristics of agricultural traders

(N=40)

Sl. No	Particulars	Frequency	%
1	Age group		
	Young (upto 35 yrs)	14	35.0
	Middle (36-50 yrs)	20	50.0
	Old (more than 51 yrs)	06	15.0
2	Sex		
	Male	37	92.5
	Female	03	7.5
3	Education		
	Illiterate	09	22.5
	Primary	08	20.0
	High school	15	37.5
	Collegiate	08	20.0
4	Experience in agricultural marketing		
	Up to 10 years	23	57.5
	11-20 years	12	30.0
	More than 21 years	05	12.5

Source: Own Field Survey, (2012-13).

Table 2. Traders awareness on agricultural market information (N=40)

Sl no	Type of Agricultural Market Information (AMI)	Degree of Awareness							
		Always		Sometimes		Rarely		Total Score	Rank
		Score	%	Score	%	Score	%		
1	Arrivals in local market	111	92.5	6	7.5	0	0.0	117	II
2	Arrivals in referencemarket	87	72.5	22	27.5	0	0.0	109	III
3	Prices in local market	120	100.0	0	0.0	0	0.0	120	I
4	Price in reference market	87	72.5	22	27.5	0	0.0	109	III
5	Area under crops	54	45.0	28	35.0	6	15.0	88	VI
6	Production	60	50.0	20	25.0	10	25.0	90	V
7	Quality / grade required	72	60.0	30	37.5	1	2.5	103	IV
8	Export and Import	30	25.0	36	45.0	12	30.0	78	VII

Traders' awareness on agricultural market information:

It was revealed from the table 2, that in general the degree of awareness of agricultural marketing information was found to be high among the sample traders. Among the various awareness parameters of AMI, the degree of awareness on prices in local markets placed the I Rank (first) followed by arrivals in local markets, arrivals and prices in reference markets (III Rank). About 60 per cent of traders were always aware on quality and grade required for agricultural produces (IV Rank). It was observed that traders were aware of AMI on area under crop, production, export and import of agricultural products.

Table 3. Sources of agricultural market informationof traders (N=40)

Sl no	Sources of Agricultural Market Information (AMI)	Degree of Awareness of AMI sources							
		Always		Sometimes		Rarely		Total Score	Rank
		Score	%	Score	%	Score	%		
1	News papers	36	30.0	26	32.5	7	17.5	68	III
2	Radio	12	10.0	10	12.5	5	12.5	27	VIII
3	Television	24	20.0	12	15.0	4	10.0	41	VI
4	Magazines	15	12.5	8	10.0	2	5.0	20	X
5	Computer / Internet	9	7.5	20	25.0	3	7.5	32	VII
6	Fellow traders	90	75.0	14	17.5	3	7.5	107	II
7	Contacts in other markets over phone	96	80.0	16	20.0	0	0.0	112	I
8	Govt. Publications	12	10.0	18	22.5	1	2.5	23	IX
9	APMC tender data for previous days	9	7.5	0	0.0	2	5.0	11	XI
10	Announcement by APMC	9	7.5	30	37.5	8	20.0	47	IV
11	Display boards in APMC	15	12.5	20	25.0	10	25.0	45	V

12	Bulletins by APMC	15	12.5	8	10.0	4	10.0	27	VIII
13	Market Intelligence cell	3	2.5	4	5.0	0	0.0	7	XII

Sources of agricultural market information of traders

From Table 3, it revealed that contacts in other markets over phone and fellow traders were the major sources of agricultural marketing information among traders with I and II ranks. It was observed that traders were always relied on contacts in other market (90 %) and fellow traders (75 %) for market information. Newspaper placed the III rank on degree of awareness of AMI sources among the traders. Announcement by APMC, display boards, television, internet were the other important sources of AMI to the traders.

Pattern of utilization of AMI and its' benefits by traders

The extent of utilization of agricultural market information by traders for decision making on purchase, storage, selling and post harvest handling was illustrated in Table 4. It was clearly seen that the agricultural market information was utilized by traders in deciding price to be quoted (I Rank), followed by the quantity to be purchased (II Rank) and the quantity to be store (III Rank). The traders were also utilized AMI for making decision on when to sale (IV Rank), when to store (V Rank) followed by quantity to be sold (VI Rank) in the study area.

Table 4. Extent of utilization of agricultural market information by traders (N=40)

Sl. No.	Type of utilization of Agricultural market information	Degree of Usage						Total Score	Rank
		Always		Sometimes		Rarely			
		Score	%	Score	%	Score	%		
A	Purchase Decisions								
	Deciding the price to be quoted	102	85.0	10	12.5	1	2.5	113	I
	Deciding the quantity to be purchased	96	80.0	16	20.0	0	0.0	112	II
B	Storage Decisions								
	Deciding the necessity of storage	36	30.0	24	30.0	5	12.5	65	VIII
	When to store	72	60.0	20	25.0	6	15.0	98	V
	Quantity to store	90	75.0	16	20.0	2	5.0	108	III
C	Selling Decisions								
	Quantity to be sold	60	50.0	30	37.5	5	12.5	95	VI
	Deciding where to sell	60	50.0	24	30.0	8	20.0	92	VII
	Deciding when to sell	66	55.0	32	40.0	2	5.0	100	IV
	Deciding whom to sell	9	7.5	20	25.0	4	10.0	33	IX
D	Post purchase handling decisions								
	Necessity of processing	0	0.0	0	0.0	5	12.5	5	XI
	Deciding handling of thecommodity	0	0.0	0	0.0	4	10.0	4	XII
	Drying	0	0.0	0	0.0	4	10.0	4	XII
	Grading	15	12.5	4	5.0	6	15.0	25	X
	Bagging	0	0.0	0	0.0	2	5.0	2	XIII
	Transportation	0	0.0	0	0.0	2	5.0	2	XIII

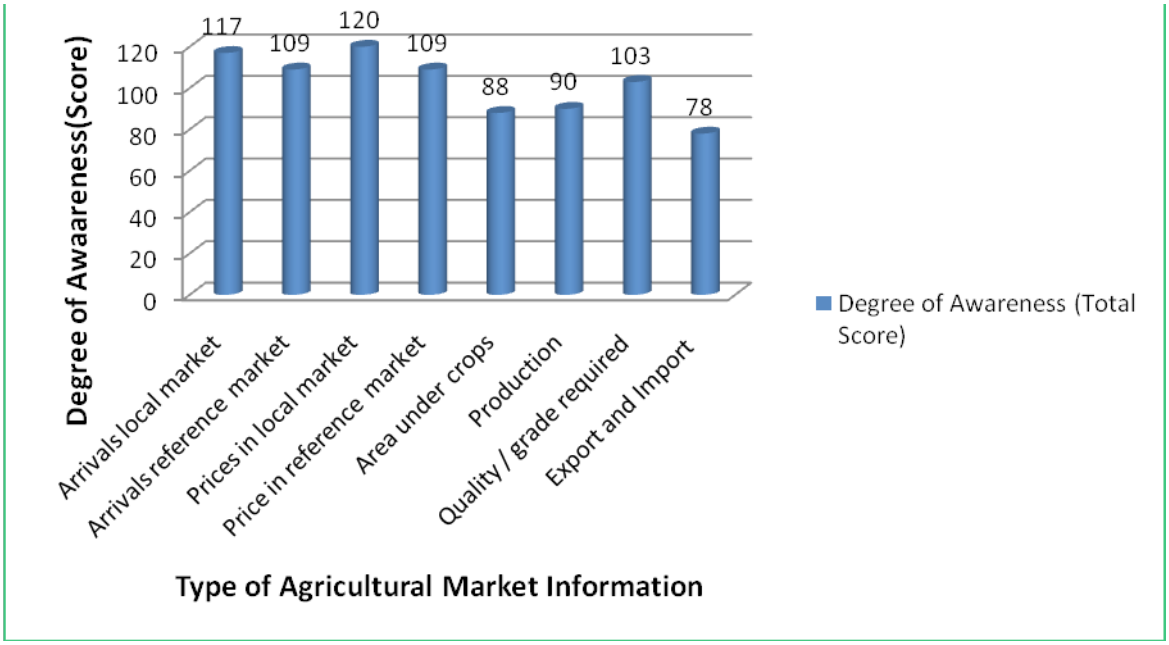


Figure 2. Traders awareness on agricultural market information

From the Table 5, it revealed that traders were benefited and obtained higher price by utilizing the AMI. It was observed that traders were most benefited by changing time of sale (90 %), followed by mode of storage (85 %), change of place of sale (75 %), drying of agricultural produce (62.5 %) and quality grading of the agricultural produce (60 %).

Table 5. Benefits derived from agricultural market information by traders (N=40)

Sl no	Types of Benefits from AMI	Traders	
		No.	%
Obtained higher Price by			
1	Changing place of sale	30	75.0
2	Changing time of sale	36	90.0
3	Changing post harvest handling	8	20.0
4	Drying of produce	25	62.5
5	Grading	24	60.0
6	Mode of packing	5	12.5
7	Mode of storage	34	85.0
8	Changing quantity of sale	12	30.0
9	Changing buyer	16	40.0
10	Value addition	4	10.0

Constraints of AMI faced by traders

The constraints as perceived by traders in existing AMI is presented in table 6. About 75 per cent of traders expressed that AMI was not available in required form. Traders were also faced difficulty on non-availability of required information on price, prices prevailing other nearby markets, arrivals, area and production aspects (60 %) followed by non availability of AMI in time (52.5%).

Table 6. Constraints as perceived by traders in existing agricultural market Information

(N=40)

Sl no	Types of Constraints in AMI	Traders	
		No.	Percentage
1	Information available but not accessible	12	30.0
2	Costly	2	5.0
3	Not available in time	21	52.5
4	Non-availability of required information on price / prices in other markets / arrivals / area / production/	24	60.0
5	Non-availability of information in required form	30	75.0

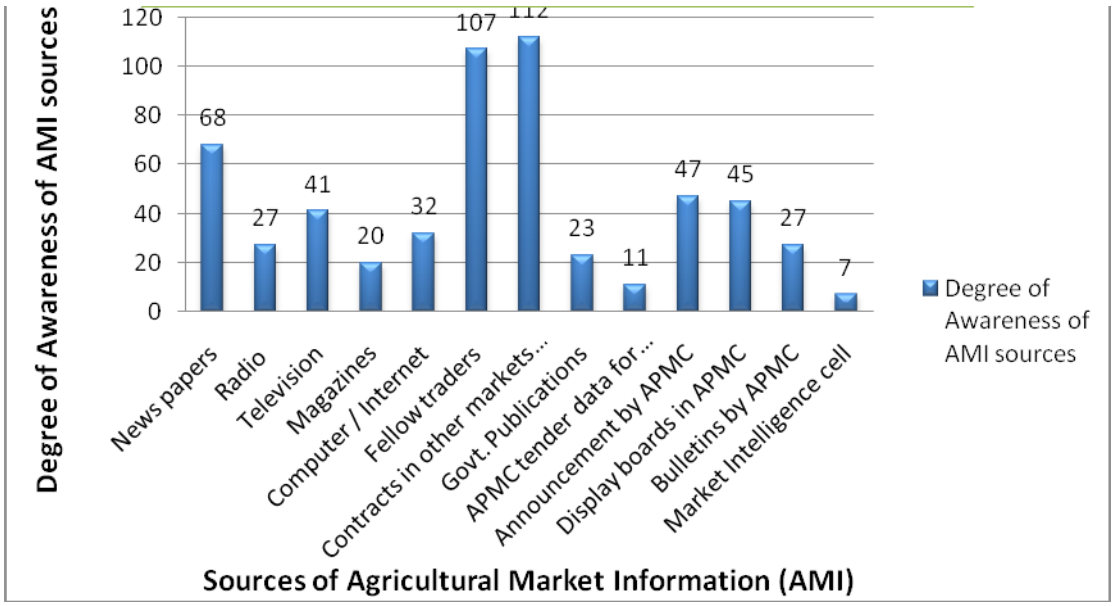


Figure 3. Sources of Agricultural Market Information of traders.

Expectations of AMI by traders

The expectation aspects of traders on AMI (table 7) indicated that the prices in other nearby markets (95 %), future price projections (87.5 %) and quality wise prices (75 %) were given more priority by traders in the study area.

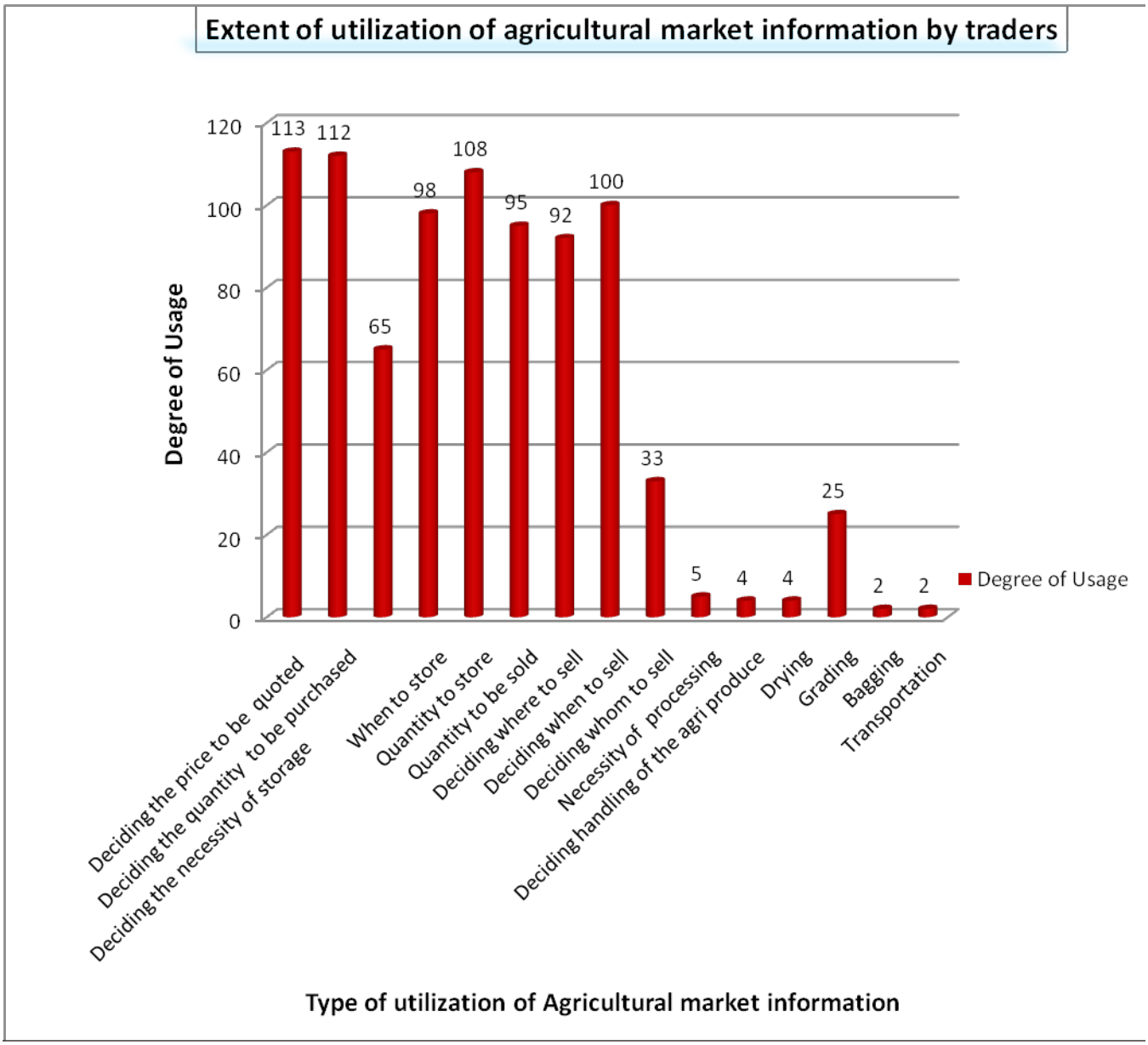
Table 7 Expectation of traders on agricultural market information (N=40)

Sl no	Types of Expectations on AMI	Traders	
		No.	Percentage
1	Projections / future price movements	35	87.5
2	Prices in other nearby markets	38	95.0
3	Quality wise prices	30	75.0
4	Post harvest handling information for better price	28	70.0
5	Area under the crop	25	62.5
6	Production of the crop	26	65.0
7	Export / import information	22	55.0

Conclusion

Based upon the results and findings of the study, the following conclusions and policy implications can be suggested for improving the agricultural marketing information system (AMIS) in East Khasi Hills and West Garo Hills of Meghalaya.

1. Of course, sparse inhabitation and geographical barriers worked as a limiting factor in creating desirable agricultural marketing information system (AMIS) infrastructure in remote hills region of East Khasi Hills and West Garo Hills of Meghalaya, but the modern Information and Communication Technology (ICT) in connection with Agricultural Marketing Information (AMI) needs to be given due consideration.
2. It is necessary toensured flow of regular and reliable data to producers, traders and consumers to derive maximum benefit of their sales and purchases.
3. Emphasis should be given on delivery mechanism of information, so that market information reaches timely to the end users in the hilly regions of Meghalaya.
4. Proper integration of various agencies for adequate and efficient dissemination of vital agricultural marketing information, so that it will act as an 'one stop solution' for the needs of the farming community in hilly regions of Meghalaya.



5. There is a need to revitalizing the Market Intelligence System especially on dissemination aspects in public institutions like State Department of Agricultural Marketing, Agricultural Universities etc. with modern communication technology.
6. The AMI should be deliver fast, reliable and accurate information in a user friendly manner for utilization by the farmers and other stakeholders in order to facilitate the farmers to decide what and when make crop and marketing planning, how to cultivate, when and how to harvest, what post harvest management practices to follow, when, where, how to sell etc. of the agricultural produce in the study area.
7. Creating awareness among farmers and other intended beneficiaries on the importance of agricultural market information and its optimum utilization for overall development of agriculture in the state.

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