



Research Article

SOURCES OF MARKET INFORMATION ON MINOR FOREST PRODUCE (MFP) IN HIGH ALTITUDE AND TRIBAL (HAT) ZONE OF ANDHRA PRADESH

CH. SATISH KUMAR^{1*}, K. NIRMAL RAVI KUMAR¹, K. SOLMON RAJU PAUL¹, P.V. SATHYA GOPAL² AND V. SRINIVASA RAO³

¹Department of Agricultural Economics, Agricultural College, Bapatla, 522101, Acharya N. G. Ranga Agricultural University, Lam, 522034, Andhra Pradesh, India

²Institute of Agribusiness Management, S.V. Agricultural College, Tirupati, 517502, Acharya N. G. Ranga Agricultural University, Lam, 522034, Andhra Pradesh, India

³Department of Statistics and Computer Applications, Agricultural College, Bapatla, 522101, Acharya N. G. Ranga Agricultural University, Lam, 522034, India

*Corresponding Author: Email - satishchittapuli@gmail.com

Received: July 04, 2022; Revised: July 26, 2022; Accepted: July 27, 2022; Published: July 30, 2022

Abstract: Identification of authentic sources of market information and differentiate between the facts and any rumours that might play significant role in any organization or community. Market information is inevitable assets for Agriculture and industrial sector to take right decisions like what to grow, when to harvest, where to sell and storage of the produce. In the present study, tribal farmers of HAT zone are residents of hilly areas, where access to market information on MFP debatable because of owing to deep forest. An attempt has been made to identify the sources of information on MFP for both the tribal farmers and traders. Total of 360 sample farmers @ 120 from GPCMS (Girijan Primary Co-operative Marketing Society) and 240 from shandies (weekly market), and 120 traders were selected for the study. Tabular analysis was applied for draw relevant information from collected data. The results revealed that most of the tribal farmers accessing the market information at village in the form of SMS (Short Message Service) with 76.94 per cent and 91.11 per cent from display boards in market level. Farmers are aware only about prices where, traders are amending on prices quality and grades. Need to installation mobile network towers, educate tribal farmers towards importance of post-harvest practices to reap the advantages of MFP.

Keywords: MFP, Market information, HAT zone and GCC

Citation: Ch. Satish Kumar, *et al.*, (2022) Sources of Market Information on Minor Forest Produce (MFP) In High Altitude and Tribal (HAT) Zone of Andhra Pradesh. International Journal of Agriculture Sciences, ISSN: 0975-3710 & E-ISSN: 0975-9107, Volume 14, Issue 7, pp.- 11475-11477.

Copyright: Copyright©2022 Ch. Satish Kumar, *et al.*, This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution and reproduction in any medium, provided the original author and source are credited.

Academic Editor / Reviewer: Dr R. S. Umakanth, Dr Prashant Shrivastava

Introduction

In Andhra Pradesh, particularly in HAT zone there was ample of MFP and this zone covers hilly areas of four districts viz., Srikakulam, Vizianagaram, Visakhapatnam and East Godavari. MFP is prominence in local, national and global economies, their contribution to the food security and significance to the biological diversity gained widespread recognition during the past decade. MFP serve as vital sources of food, flavorings, perfumes, beverages, polishes, construction materials, spices, medicines, paints and extracts used in the chemical industry [1]. Hill broom (*Thysanolaena maxima*), honey, markingnut (*Semecarpus anacardium*), myrobalan (*Terminalia chebula*), naramamidi bark (*Litsea deccanensis*) and seeded tamarind (*Tamarindus indica*) six MFP under study was taken based on its contribution about 84 per cent share value of income.

Market information is crucial for timely collection, improving marketing and distribution strategies [2]. In order to compete at global level in transacting MFP, the tribal farmers should have latest information regarding new techniques of collection, quality promotion, Government policies, domestic and export competitiveness deserve considerable attention. MFP contributes one of the sources of income for tribal dwellers. Collection and marketing of MFP is the backbone of tribal economy in Andhra Pradesh. Since the last decade and half, MFP transactions in tribal areas had been very poor due to the subsistence and traditional system, reasons behind this situation are MFP sector had not been adequately supported with necessary infrastructure, appropriate extension activities and market information. There was no positive impact on lives of the tribal people with number of tribal development programs implemented in Andhra Pradesh. So, it was strongly felt by the Girijan Co-operative Corporation (GCC) in Andhra Pradesh that, promotion of collection and marketing of MFP is difficult in the absence of adequate, accurate, relevant and timely information.

So, realizing the lacunae in the traditional market information and assimilating the novel information technologies into their efforts, the GCC has made considerable efforts to disseminate the market information to tribal farmers and other market players. Dissemination of market information is an important function of GPCMS/PPCs (Primary Procurement Centers), which is performed through displaying of the prices prevailing in the market on the notice boards and broadcasting through SMS, television, All-India Radio (AIR) and other media.

Collection and marketing of MFP were taken responsibility mostly by females in the study area. Illiteracy, old age group of farmers and deep forest coverage opposed to access market information on MFP arrivals, prices and other relevant market information in the study area. When come to traders, they known very well about farmers financial positions, arrivals, prices, storage information, quality and grades information. With this background, present study focused on what are the major source of information for both farmers and trades at both village and market levels, and how extent traders are more aware on MFP market related information then tribal farmers in the study area.

Material and methods

In the present study primary data was collected through multi-stage sampling design i.e., Division level, GPCMS level and shandies (local weekly markets). The tribal farmers of HAT zone transact their MFP in shandies. In shandies transact their produce either GPCMS or private traders or both depending upon the relative prices offered by these two market players. Present study covered six MFP based on total share value of the produce, two samples were drawn from six MFP transacted by the tribal farmer. Sample was collected from both GCC and shandies.

Thus, 120 farmers from 10 GPCMS (across five Divisions) and 240 farmers from 20 shandies were selected for depth investigation during 2020-21. Relevant information was taken from total of 120 traders who transact six MFP and GCC staff. Descriptive statistics such as frequency, percentage and mean were used to draw meaningful relevant information from the collected data.

Results and Discussion

The descriptive statistics of sample tribal farmers presented through [Table-1] indicated that the average age of the farmers was about 48 years with a family of 5 members. Around 57 per cent of selected tribal farmers are women involved in collection and transacting MFP in HAT zone and remaining 43 per cent are men. It is disappointing to note that 50 per cent of the farmers were illiterates, 21 per cent of them had been to a primary school and only nine per cent had college education. It was observed that 62 per cent of sample farmers are engaged both in farming and collection and sale of MFP and the informal discussions held with the sample farmers revealed that they transact their produce through mutual negotiations with GPCMS/PPC officials and private traders working in shandies.

Table-1 Socio-economic characteristics of sample farmers (n = 360)

SN	Characteristics	Number	Percentage
1	Average age (Years)	48.24	-
2	Sex		
	a. Male	155	43.06
	b. Female	205	56.94
3	Education		
	a. Illiterate	181	50.27
	b. Primary	74	20.56
	c. Higher	72	20.00
	d. Collegiate	33	9.17
	Total	360	100.00
4	Average family size		
	a. Male	1.65	31.67
	b. Female	1.05	20.15
	c. Children	2.51	48.18
	Total	5.21	100.00
	Occupation		
5	a. Collection of MFP	74	20.56
	b. Farming + Collection of MFP	225	62.50
	c. Collection of MFP + Other business	61	16.94
	Total	360	100.00
6	Ownership of audio-visual communication systems		
	Radio	179	49.72
	Television	257	71.39
	News papers	121	33.61
	Magazines	52	14.44
	Mobile phone	288	80.00
	Internet	37	10.28

Note: The percentages do not add up to 100 due to multiple or no response

Eighty per cent of the farmers owned a mobile phone, 71 per cent of owned a television and around 50 per cent of the farmers owned radio as major communication systems for receiving the market information. Only 34, 14 and 10 per cents of sample farmers subscribed for newspapers, magazines and internet for accessing the market information. In HAT zone, the existing MIS (Marketing Information System) was regulated by GCC with its Head Office located at Visakhapatnam. It had wide range of network for their operations and dissemination of market information with help of divisional office, GPCMS and PPCs.

[Table-2] explains the sources of market information at village level indicated that mobile phone (77%), co-farmers (70%), television (49%) and relatives (42%) were the general sources for sample farmers this finding is in line with the findings of Hatai (2016) [3] and Oladele (2006) [4]. With the advent of mobile network since past one decade, this source has gained momentum over television in HAT zone. The farmers continue to depend on co-farmers to receive the market information

on mutual trust basis this result corroborates with the findings of Adhiguru, *et al.*, (2009) [5] and Sain, *et al.*, (2017) [6]. The farmers depend lesser extent on the institutional agency at village level viz., Gram panchayat office (13%) in accessing market information displayed on the notice boards.

Table-2 Sources of market information to tribal farmers at village level in HAT zone (n=360)

SN	Sources	Number	Percentage
1	Gram panchayat office	47	13.06
2	Co-farmers	252	70.00
3	Relatives	151	41.94
4	Radio	43	11.94
5	Television	175	48.61
6	Mobile Phone (SMS)	277	76.94
7	News Papers	66	18.33
8	Magazines		
	a. Annadata	23	6.39
	b. Rythu Nestham	13	3.61

Note: The percentages do not add up to 100 due to multiple or no response

However, at market level [Table-3] display boards in GPCMS/PPCs are the most sought among different market information sources (91%) followed by announcements at GPCMS/PPCs (46%) and traders (44%) for the sample farmers. The farmers even enjoyed a fair relationship with traders to elicit market information to compare relative prices offered by GPCMS/ PPC and at local shandies.

Table-3 Sources of market information to tribal farmers at market level in HAT zone (n=360)

SN	Sources	Number	Percentage
1	Display boards in GPCMS/PPCs	328	91.11
2	Announcements at GPCMS/PPCs	167	46.39
3	Traders	160	44.44
4	Website of GCC	11	3.06
5	Bulletins of GPCMS	96	26.67
6	Market intelligence cell in GPCMS	41	11.39

Note: The percentages do not add up to 100 due to multiple or no response

Regarding traders [Table-4], at village level mobile phones (92%), good number (88%) access market information through Gram panchayat office (unlike farmers) and television (67.5%) sources this finding is in line with the findings of Amrutha and Hugar (2010) [7], Rawal and Bhatta (2017)[8], Sachan, *et al.*, (2019) [9].

Table-4 Sources of market information to traders at village level in HAT zone (n = 120)

SN	Sources	Number	Percentage
1	Gram panchayat office	106	88.33
2	Radio	53	44.17
3	Television	81	67.50
4	Mobile Phone (SMS)	110	91.67
5	News Papers	61	50.83
6	Magazines		
	a. Annadata	18	15.00
	b. Rythu Nestham	11	9.17

Note: The percentages do not add up to 100 due to multiple or no response

Table-5 Sources of market information to traders at market level in HAT zone (n = 120)

SN	Sources	Number	Percentage
1	Display boards in GPCMS/PPCs	115	95.83
2	Announcements in GPCMS/PPCs	107	89.17
3	Website of GCC	49	40.83
4	Bulletins of GPCMS	61	50.83
5	Market intelligence cell in GPCMS	54	45.00
6	Fellow traders	91	75.83

Note: The percentages do not add up to 100 due to multiple or no response

At market level [Table-5], traders also access the market information mainly through display boards in GPCMS/PPCs (96%). They also enjoy access through announcements in GPCMS/PPCs (89%), fellow traders (76%) and bulletins frequently published by GPCMS (51%), unlike the farmers. Thus, besides Government sources (GPCMS/PPCs/website/bulletins), contacts with fellow traders also found as major sources of market information on arrivals and prices among traders. It is interesting that, besides informal sources, traders are accessing marketing information through Government publications, market intelligence cell *etc.*

Awareness on Market Information

[Table-6] indicated the awareness of the sample farmers on different components of market information. It is disappointing that, the awareness of farmers on quality and grades of MFP collected (26%) was found to be poor. However, the farmers are highly aware about prices of MFP in local GPCMS/PPCs (89%) and in local shandies (84%) compared to other GPCMS/PPCs (41%) and other shandies (35%). Same is the case with reference to market arrivals i.e., farmers enjoy more awareness with reference to local GPCMS/PPCs (52%) and local shandies (76%) compared to other GPCMS/PPCs (22%) and other shandies (24%). This analysis further highlighted that the farmers are highly price conscious and are relatively more curious about prices in local GPCMS/PPC and local shandy for easy disposal of the collected MFP the results corroborates with the findings of Miwanda, *et al.*, (2014) [10].

Table 6 Farmers awareness on market information (n = 360)

SN	Type of market information	Number	Percentage
1	Arrivals in local GPCMS/PPC	186	51.67
2	Arrivals in other GPCMS/PPCs	78	21.67
3	Arrivals in local shandy	275	76.39
4	Arrivals in other shandies	87	24.17
5	Prices in local GPCMS/PPC	320	88.89
6	Prices in other GPCMS/PPCs	146	40.56
7	Prices in local shandy	303	84.17
8	Prices in other shandies	126	35.00
9	Quality and grade of MFP collected	93	25.83

Note: The percentages do not add up to 100 due to multiple or no response

Regarding traders [Table-7], they gather market information about arrivals and prices of MFP in GPCMS/PPCs and shandies both in local and non-local areas finding is in line with the findings of Hatai and Panda (2015) [11]. This facilitates them to procure and transact the MFP in different markets and reap the profits. They are comparatively more aware about different grades and standards of MFP and hence, enjoy higher marketing margins compared to farmers.

Table-7 Traders' awareness on market information (n = 120)

SN	Type of market information	Number	Percentage
1	Arrivals in local GPCMS/PPCs	88	73.33
2	Arrivals in other GPCMS/PPCs	69	57.50
3	Arrivals in local shandy	106	88.33
4	Arrivals in other shandies	91	75.83
5	Prices in local GPCMS/PPCs	109	90.83
6	Prices in other GPCMS/PPCs	101	84.17
7	Prices in local shandy	111	92.50
8	Prices in other shandies	106	88.33
9	Quality and grade of MFP in market	71	59.17

Note: The percentages do not add up to 100 due to multiple or no response

Conclusion

Timely changing of market conditions, prices, demand and supply of the produce actuate the stakeholders. Rapid dissemination of accurate market information relying on existed situations, socioeconomic conditions and infrastructural facilities. The results of the study revealed that, in the study area sampled farmers are relatives come under average age of 48 years old, 50 per cent of sample farmers are illiterates and 80 per cent of farmers are accessing mobile phones. Sources of information for farmers at village level co-farmers and mobile, at market level display boards and announcement by GCC officials. Sources of information for traders are mobile phones, panchayat offices and display boards. Traders are more aware about prices, quality and grading parameters than farmers. From the study there is need to be focus on installation of necessary wireless telecommunication infrastructure facilities broadcasts timely information to the tribal farmers. Educate the tribal farmer's to access the accurate information through modern devices and training needed on quality and grading of MFP. Value addition units equipped with proper collection and processing technologies for forest produce need to be established to ensure risk elimination, time conservation, revenue increment and convenience to the tribal farmers. Especially in the places of popularity, it is considered economically viable to establishment of such units owing to great tourist influx in these divisions.

Application of research: Socioeconomic conditions of tribal farmers in HAT zone of Andhra Pradesh. Available sources of market information on MFP for tribal people and traders in the HAT zone. Post-harvesting activities on MFP in study area.

Research Category: Agricultural Economics

Acknowledgement / Funding: Authors are thankful to Department of Statistics and Computer Applications, Agricultural College, Bapatla, 522101, Acharya N. G. Ranga Agricultural University, Lam, 522034, Andhra Pradesh, India and GCC Visakhapatnam, Andhra Pradesh, India.

****Research Guide or Chairperson of research: Dr. K. N. Ravi Kumar**
University: Acharya N. G. Ranga Agricultural University, Lam, 522034, India
Research project name or number: PhD Thesis

Author Contributions: All authors equally contributed

Author statement: All authors read, reviewed, agreed and approved the final manuscript. Note-All authors agreed that- Written informed consent was obtained from all participants prior to publish / enrolment

Study area / Sample Collection: High Altitude and Tribal (HAT) Zone of Andhra Pradesh, 360 sample farmers, 120 traders

Cultivar / Variety / Breed name: Nil

Conflict of Interest: None declared

Ethical approval: This article does not contain any studies with human participants or animals performed by any of the authors.
Ethical Committee Approval Number: Nil

References

- [1] Arnold J.E.M and Ruiz Pérez M. (1998) *The role of non-timber forest products in conservation and development. Incomes from the forest: methods for the development and conservation of forest products for local communities*, 17-42.
- [2] Oyeyinka R.A. (2013) *Journal of Agricultural Science (Toronto)*, 5(11), 150-158.
- [3] Hatai L.D. (2016) *Economic Affairs*, 61(1), 89-99.
- [4] Oladele O.I. (2006) *Nordic Journal of African Studies*, 15(2), 199-205.
- [5] Adhiguru P., Bithal P.S and Kumar B.G. (2009) *Agricultural Economics Research Review*, 22(347-2016-16740), 71-80.
- [6] Sain V., Kundu K.K and Mehta V.P. (2017) *International Journal Current Microbiology Application Science*, 6(4), 58-65.
- [7] Amrutha C.F. and Hugar L.B. (2010) *International Journal of Commerce and Business Management*, 2(2), 132-135.
- [8] Rawal R.B. and Bhatta B. (2017) *Research Journal of Agriculture and Forestry sciences*, 5(11), 5-11.
- [9] Sachan S., Jawa S.K and Kumar T. (2019) *Plant Archives*, 19(1), 125-130.
- [10] Miwanda A., Kabaale E. and Mayoka Kituyi G. (2014) *Using ICTs to disseminate Agricultural marketing information to small scale rural farmers in Western Uganda*.
- [11] Hatai L.D. and Panda D. (2015) *Economic Affairs*, 60(2), 263-272.