

## SATISFACTION OF THE BENEFICIARY FARMERS IN THE AGRICULTURAL COMMODITY WHOLESALE MARKETS IN KERALA - AN ASSESSMENT

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### Abstract

'Kerala' the State with lesser agricultural land area and high population density forced to depend greatly upon its nearby States especially Tamil Nadu for their day to day agricultural consumption requirements. The study reports of the Commissioner of Food Safety in Kerala reveals that the inflow of these vegetable produces to Kerala is of highly poisonous due to the heavy usage of banned pesticides and other poisonous chemicals. As a result, it increases the health risk of the people in Kerala who were forced to consume such vegetable produces. In order to tackle with these problems and to retain the available organic farmers in Kerala, Government of Kerala has implemented various projects. Among the projects implemented, the prominent one seems to be the implementation of the six Agricultural commodity wholesale markets (ACWMs) in order to solve the marketing issues in relation to farming. The main aim of these markets is to provide direct platform facility to the farmers to sell off their produce without the interference of intermediaries. In this circumstance, it is worthwhile to assess the satisfaction level of those beneficiary farmers who get registered with these ACWMs out of the services offered. The present paper is an earnest attempt in this direction. The study concluded that there is significant difference between the beneficiary farmers in the rural and urban ACWMs in respect of their satisfaction level.

**Keywords:** Agricultural Commodity Wholesale Markets, Beneficiary Farmers, Direct Platform, Intermediaries, Auction Procedure Etc.

### BACKGROUND

ACWMs were implemented under Kerala Agriculture Markets Project (KAMP) by utilizing fund from the European Union for the development of agricultural markets in the State. Six markets were implemented under this project, including the urban and rural markets situated in the southern, northern and in the central parts of the State. Anayara (TVM), Maradu (EKM) and Vengeri (Kozhikode) are the urban markets. Nedumangadu (TVM), Muvattupuzha (EKM) and Sulthan Bathery (Wayanad) are the rural markets. ACWMs were popularly known as "World Markets" mainly designed to provide direct marketing facilities to farmers in disposing their agricultural produce.

### STATEMENT OF THE RESEARCH PROBLEM

Being Kerala an agrarian State, the drastic outflow of farmers from the field of agriculture was the severe problem recently. Land meant for agricultural purposes in Kerala became meager due to the high population density, also supported the issue. As a result, the people of Kerala compelled to depend on other States for their day to day consumption requirements. Study reports of Commissioner of Food and Safety in Kerala disclosed the heavy usage of poisonous banned fertilizers in the vegetables and food produces incoming from the nearby States. In order to handle this extreme situation, Government of Kerala undertakes various projects so as to activate the organic farmers of Kerala. Statistical reports revealed that the problems experienced by the farmers seem to be the major reasons for the fall over of farmers. Among the issues, the major one seems to be the marketing problem. Farmers are even forced to dispose their produce at lesser prices without covering their cost. As a remedial step the Government of Kerala set up six ACWMs in the rural and urban regions of the State so as to provide a direct platform facility for the farmers in the field of marketing without the intervention of the middlemen. The aim of the working of ACWMs is to provide adequate support and assistance to the ultimate beneficiaries namely the Farmers, to overcome the issues related with the marketing of agriculture produce. At this juncture it is highly relevant to conduct an assessment of beneficiary farmer's satisfaction from the various services and facilities offered to them by ACWMs.

### OBJECTIVE OF THE PAPER AND HYPOTHESIS

The specific objective of the present study is to assess the satisfaction level of the beneficiary farmers in ACWMs from the various services and facilities offered to them.

It is hypothesized that, there is no significant difference between the farmers in the rural and urban Agricultural commodity wholesale markets.

### METHODOLOGY AND DATA BASE

The main objective of this paper is to assess the satisfaction level of the beneficiary farmers in the ACWMs. For that purpose primary data were collected from sample farmers through observation and with the help of pre-tested structured interview

schedules. About two hundred farmers are registered in each of ACWMs through their respective Krishi Bhavans. Out of these, only 25 per cent of farmers attend regularly during auctions. The data were collected from those farmers who regularly attended the auctions. A sample of 50 farmers from each ACWMs were selected by employing Simple Random Sampling Method. Thus, a total sample size of 300 farmers is selected. Statistical tools such as mean, SD, t-test and F-test are employed for the analysis.

### ASSESSMENT OF FARMER SATISFACTION

The section seeks to assess the satisfaction level enjoyed by the farmers out of the facilities and services offered by the ACWMs in the rural and urban regions of the State. For this purpose market wise and region wise comparison has been attempted.

The variables used for the analysis are listed below.

1. Transport subsidy
2. Grading system
3. Auction procedure
4. Co-operation of market officials and staff
5. Reduction of wastage

The results of the analysis are discussed below.

#### 1. Transport Subsidy

Farmer's response at satisfactory levels from transport subsidy earned is depicted in the following Table 1.

**Table – 1, Satisfaction Level from Transport Subsidy**

Table 1 indicates that out of the 300 sample farmers surveyed, 154 farmers (51.33 per cent) opined that they are satisfied with the transport subsidy provided by ACWMs. Market-wise analysis shows that the percentage share of farmers in Anayara

Market	Not Satisfied		Average		Satisfied		Total		Mean	SD	Statistics (Sig.)
	n	%	n	%	n	%	n	%			
Anayara	0	0.00	15	30.00	35	70.00	50	100.00	2.70	0.46	F=109.605 (sig=0.000)
Maradu	0	0.00	20	40.00	30	60.00	50	100.00	2.60	0.49	
Vengeri	0	0.00	21	42.00	29	58.00	50	100.00	2.58	0.50	
Nedumangadu	0	0.00	21	42.00	29	58.00	50	100.00	2.58	0.50	
Muvattupuzha	0	0.00	19	38.00	31	62.00	50	100.00	2.62	0.49	
Sulthan Bathery	50	100.00	0	0.00	0	0.00	50	100.00	1.00	0.00	
Urban	0	0.00	56	37.33	94	62.67	150	100.00	2.63	0.49	t =6.966 (sig=0.000)
Rural	50	33.33	40	26.67	60	40.00	150	100.00	2.07	0.86	
Total Sample	50	16.67	96	32.00	154	51.33	300	100.00	2.35	0.75	

Source: Survey Data.

market (70.00) is more in this respect followed by Muvattupuzha (62.00) and Maradu (60.00) markets. Whereas, sample farmers in Bathery market are of the opinion that they are not satisfied with the subsidy provided. The F-test shows that this difference among the farmers from various markets is significant. The urban- rural market wise comparison indicates that percentage share of satisfaction level (62.67 per cent) is more among the farmers in urban regions. Here, the mean score value of urban farmers is above the total mean score (2.35) indicates the satisfaction level. The application of t-test reveals that the difference between the urban and rural farmers with respect to the transport subsidy is significant.

#### 2. Grading System

Agriculture produce that are brought into the auction centre are properly graded by the market authorities. Grades are allotted based on the quality of the produce. Grade I is allotted for high quality, Grade II is allotted for second quality and Grade III is allotted for third quality of agriculture produce. Grading is majorly done for the agriculture produce plantain (based on its size, quantity and quality). Grading of other agriculture produces such as cucumber, snake gourd, jack fruit, elephant yam etc. are also commonly practiced in Agricultural Wholesale Markets. It is found that farmers avail high price for grade I quality of agriculture produce. Satisfaction level of farmers from grading is shown in Table 2.

**Table - 2, Satisfaction Level from Grading System**

Market	Not Satisfied		Average		Satisfied		Total		Mean	SD	Statistics (Sig.)
	n	%	n	%	n	%	n	%			
Anayara	19	38.00	22	44.00	9	18.00	50	100.00	1.80	0.73	F=88.918 (sig=0.000)
Maradu	0	0.00	26	52.00	24	48.00	50	100.00	2.48	0.50	
Vengeri	0	0.00	22	44.00	28	56.00	50	100.00	2.56	0.50	
Nedumangadu	0	0.00	0	0.00	50	100.00	50	100.00	3.00	0.00	
Muvattupuzha	11	22.00	18	36.00	21	42.00	50	100.00	2.20	0.78	
Sulthan Bathery	50	100.00	0	0.00	0	0.00	50	100.00	1.00	0.00	
Urban	19	12.67	70	46.66	61	40.67	150	100.00	2.28	0.68	t=2.258 (sig=0.025)
Rural	61	40.67	18	12.00	71	47.33	150	100.00	2.07	0.94	
Total Sample	80	26.67	88	29.33	132	44.00	300	100.00	2.17	0.82	

Source: Survey Data.

It may be noted from the Table 2 that, when 44.00 per cent of the total sample farmers expressed their satisfaction towards this variable, 26.67 per cent of the same sample opined that they are not satisfied with the grading system followed. Market-wise comparison shows that the farmers from the Nedumangadu market are more satisfied (mean score 3.00) followed by the farmers of Vengeri (2.56) and Maradu (2.48). 'F' test indicates that there is significant difference in the response of the farmers in different wholesale markets. The region-wise comparison reveals that the farmers from urban region are more satisfied (mean score is 2.28) compared to that of rural farmers (score = 2.07). The t-test indicates that there is significant difference in the opinion level of farmers in urban and rural regional markets.

### 3. Auction Procedure

From the survey it is found that there exists similarity in the auction procedures carried out by all the wholesale markets except Bathery. Though trading of agriculture produce is carried out in Bathery market, it is not by following the proper auction procedures. Response of the farmers about auction procedure is shown in Table 3.

**Table – 3, Satisfaction Level from Auction Procedure**

Market	Not Satisfied		Average		Satisfied		Total		Mean	SD	Statistics (Sig.)
	n	%	n	%	n	%	n	%			
Anayara	17	34.00	13	26.00	20	40.00	50	100.00	2.06	0.87	F=80.546 (Sig=0.000)
Maradu	0	0.00	29	58.00	21	42.00	50	100.00	2.42	0.50	
Vengeri	0	0.00	14	28.00	36	72.00	50	100.00	2.72	0.45	
Nedumangadu	0	0.00	0	0.00	50	100.00	50	100.00	3.00	0.00	
Muvattupuzha	13	26.00	20	40.00	17	34.00	50	100.00	2.08	0.78	
Sulthan Bathery	50	100.00	0	0.00	0	0.00	50	100.00	1.00	0.00	
Urban	17	11.33	56	37.33	77	51.33	150	100.00	2.40	0.69	t=3.948 (Sig=0.000)
Rural	63	42.00	20	13.33	67	44.67	150	100.00	2.03	0.93	
Total Sample	80	26.67	76	25.33	144	48.00	300	100.00	2.21	0.84	

Source: Survey Data.

Table 3 expresses the views of respondents about the auction procedures carried out in the six ACWMs. Out of the total 300 sample farmers 48 per cent of farmers comment as satisfied towards the auction procedures carried out in the wholesale markets. Whereas, the farmers in Bathery market indicate that they are not satisfied in respect of this variable. The market-wise comparison shows that the mean number of farmers responded most positively is more in Nedumangadu market (the score is 3) compared to the farmers in other markets. The difference in this respect among the farmers of different markets is

statistically significant (F-test). Region-wise analysis shows that urban farmers are more satisfied (mean score 2.40) than that of rural (score = 2.03). The statistical t-test revealed that this difference is significant.

#### 4. Co-operation of Market Officials and Staff

It is understood that co-operation of market officials and staff is needed to co-ordinate the auction procedures carried out in ACWMs. Response level of sample respondents in this respect is given in Table 4.

**Table - 4, Satisfaction Level from Co-operation of Market Officials and Staff**

The attitude of the farmers in different wholesale markets on the co-operation of market officials and staff is clearly shown in

Market	Not Satisfied		Average		Satisfied		Total		Mean	SD	Statistics (Sig.)
	n	%	n	%	n	%	n	%			
Anayara	17	34.00	17	34.00	16	32.00	50	100.00	1.98	0.82	F=40.128 (Sig=0.000)
Maradu	15	30.00	35	70.00	0	0.00	50	100.00	1.70	0.46	
Vengeri	0	0.00	24	48.00	26	52.00	50	100.00	2.52	0.50	
Nedumangadu	0	0.00	0	0.00	50	100.00	50	100.00	3.00	0.00	
Muvattupuzha	0	0.00	21	42.00	29	58.00	50	100.00	2.58	0.50	
Sulthan Bathery	0	0.00	22	44.00	28	56.00	50	100.00	2.56	0.50	
Urban	32	21.33	76	50.67	42	28.00	150	100.00	2.07	0.70	t= -9.480 (Sig=0.000)
Rural	0	0.00	43	28.67	107	71.33	150	100.00	2.71	0.45	
Total Sample	32	10.67	119	39.67	149	49.67	300	100.00	2.39	0.67	

Source: Survey Data.

the Table 4. It is clear that out of the total sample farmers surveyed, 149 farmers (49.67 per cent) are satisfied with the co-operation of market officials and staff. Whereas, 39.67 per cent of respondents rated the same as average and 10.67 per cent responded it as not satisfied. The market-wise analysis shows the percentage share of satisfaction is more among the farmers in Nedumangadu (the mean score is 3) followed by farmers in Muvattupuzha, the score being 2.58 and Bathery (score = 2.56). Application of F-test proves that the difference is significant at 5 % level in the satisfactory levels of farmers in ACWMs. From the region-wise analysis it is clear that rural farmers are more satisfied (the score being 2.71) in this respect when compared to urban farmers (score is 2.07). The t-test also indicates a significant difference in the opinion level of region-wise farmers.

#### 5. Reduction of Wastage

Quantities of produce brought in by farmers are subjected to minor reductions due to some wastage. Usually such type of reduction is related with certain vegetable produce such as banana (removal of *Kalamundam*), yam, tapioca etc. In certain leafy vegetables like amaranthus reduction of wastage is usually done due to its lack of freshness. Satisfactory levels of farmers based on this variable are shown in Table 5.

**Table - 5, Satisfaction Level from Reduction of Wastage**

Market	Not Satisfied		Average		Satisfied		Total		Mean	SD	Statistics (Sig.)
	n	%	n	%	n	%	n	%			
Anayara	21	42.00	29	58.00	0	0.00	50	100.00	1.58	0.50	F=61.342 (Sig. 0.000)
Maradu	0	0.00	29	58.00	21	42.00	50	100.00	2.42	0.50	
Vengeri	0	0.00	18	36.00	32	64.00	50	100.00	2.64	0.48	
Nedumangadu	0	0.00	0	0.00	50	100.00	50	100.00	3.00	0.00	
Muvattupuzha	16	32.00	21	42.00	13	26.00	50	100.00	1.94	0.77	
Sulthan Bathery	0	0.00	50	100.00	0	0.00	50	100.00	2.00	0.00	
Urban	21	14.00	76	50.67	53	35.33	150	100.00	2.21	0.67	t= -1.304 (Sig. 0.193)
Rural	16	10.67	71	47.33	63	42.00	150	100.00	2.31	0.66	

Total Sample	37	12.33	147	49.00	116	38.67	300	100.00	2.26	0.66	
Source: Survey Data.											

It is observed from the Table 5 that out of the total sample farmers, (116) expressed that they are satisfied with the reduction of wastage done by the market authority. Their percentage share is 38.67. Market-wise analysis of farmers in Nedumangadu, Vengeri, Maradu and Muvattupuzha markets showed their percentage share of satisfaction level as 100.00, 64.00, 42.00, and 26.00 respectively. From the results, it has been concluded that statistically (F test) there was significant difference of response among the farmers in different wholesale markets on this variable. Comparison between urban and rural farmers indicates that, rural farmers are more satisfied (mean score is 2.31) than that of the urban farmers, the score being 2.21. However, application of t-test indicates that there exists no significant difference in the opinion level of farmers in different regional markets.

In order to evaluate the level of satisfaction between the farmers in the urban-rural wholesale markets, 5 variables have been identified and analyzed. Out of these 5 variables, statistically significant difference is seen in case of 4 variables i.e., transport subsidy, grading system, auction procedure and co-operation of market officials and staff. The analysis reveals that in case of 3 variables the urban farmers are found more satisfied when compared to rural. From region-wise analysis it is found that in the case of the variable transport subsidy, urban farmers seemed to be highly satisfied when compared to rural. With respect to the satisfactory levels out of grading system and auction procedures urban farmers topped first showing significant difference compared to rural. Whereas, rural farmers seem to be more satisfied in respect of co-operation of market officials and staff compared to that of urban farmers. However, the difference seems to be not significant though the satisfactory levels of rural farmers are found more, compared to urban farmers in case of the variable, reduction of wastage. Thus it is clear that the level of satisfaction of urban farmers are more when compared to the rural. Therefore, the hypothesis that there is no significant difference between the farmers in the rural and urban Agricultural Commodity Wholesale Markets in respect of their satisfaction level stands rejected.

#### MAJOR FINDINGS

1. Majority of sample farmers (51.33 per cent) are of the opinion that they are satisfied in respect of the transport subsidy provided. Mean opinion scores of farmers in Anayara market is more (2.70) as against the lowest score in Bathery market (score=1.00). Significant difference is observed in the opinion scores of farmers in different markets. Analysis based on the responses of regional farmers reveals that, urban farmers are more satisfied in this respect (the score being 2.63). Region-wise analysis based on the opinion of farmers also shows significant difference.
2. As regards grading system, most of the employees opined that they are satisfied (44 per cent), whereas, 29.33 per cent are of the view that it was only average. Farmers in Nedumangadu market indicates the maximum score in this respect (3) followed by the opinion score of farmers in Vengeri market (score being 2.56). Moreover, statistically significant difference was noticed in the responses of farmers in different markets. Based on region-wise comparison, urban farmers are found more satisfied (score=2.28) compared to rural farmers (score is 2.07). Statistically there exists significant difference in the response of farmers in different regions.
3. Out of the total sample farmers, 48 per cent comments that they are satisfied in respect of the auction procedures carried out. Mean opinion score of farmers in Nedumangadu market is found more (3) compared to other markets. As there is significant market-wise difference, t-test is used to find out the difference in the response of farmers in urban and rural markets. From the results, it is inferred that there exists severe regional difference between the satisfaction levels enjoyed by the farmers in respect of this variable.
4. It was observed that, among the sample farmers, 49.67 per cent are satisfied with the co-operation of market officials and staff. The percentage share of satisfaction of farmers in Nedumangadu market is more (mean score=3) in this respect. Market-wise analysis proves the existence of significant difference in the opinion among the farmers of different markets. Moreover, rural farmers are found more satisfied compared to urban farmers based on their mean opinion scores. The difference between the regional farmers also found to be significant at 5 % satisfactory levels in respect of the same variable.
5. Though significant difference is noted in the opinion among the farmers in different markets, most of them (49 per cent) have vehemently stated that they are neither satisfied nor dissatisfied with the reduction of wastage done by the market authorities on the quantities of agriculture produce brought in. Between the regional markets, farmers in



rural region are found more satisfied (mean=2.31) compared to that of urban farmers (mean score being 2.21). However, no significant difference is observed in the opinion between the regional farmers.

### CONCLUSION AND SUGGESTIONS

Though ACWMs are formed for the benefit of farmers, and found to have offered various services to its beneficiary farmers, severe difference is noted in respect of the opinion scores of satisfaction level enjoyed by the farmers. Farmers in Nedumangadu market responded more positively in respect of the variables such as grading system, auction procedure, co-operation of market officials and staff and in the reduction of wastage. Based on the overall opinion scores, urban farmers are found more satisfied compared to rural farmers.

In order to overcome the issues in relation with the transport subsidy provided to the farmers especially in relation to Bathery farmers and to lessen the burden of transportation problems due to Mountain Ghats, the only solution that can be put forth is by 're-structuring the transport-subsidy slabs'. Market authority has to fix up the transport subsidy, not only simply based on quantities of produce brought in, but also by considering the locational disadvantages of the market. Transport subsidy provided to farmers in rural market has to be increased than that of the subsidy allowed to farmers in urban markets.

It seems the responsibility of the Department of Agriculture marketing to ensure the participation of HORTICORP during auctions in Bathery market, as cent per cent of the farmers in Bathery market are of the opinion that they are not satisfied with the auctions procedures carried out. Even though Bathery market is in the better position in handling more quantities of produce, participation of HORTICORP could make the market an outstanding one based on performance. Department can take up initiatives to implement sales centers of HORTICORP in Wayanad District itself, so that difficulties in respect to transporting of agriculture produce can be avoided. Another suggestion that can be put forth is that by allowing refrigerated mobile van services to HORTICORP so that the produces can be brought to Kozhikode District without much delay by maintaining its freshness.

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