

# A Study on Income and Expenditure of Women Agricultural Labourers in Madurai District

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**Abstract:** *Women play a vital role in the agriculture sector and working women's are also very important in their family because they income has helpful to their family expenses and also to help economic development. In Madurai district, the researcher selected 120 women agricultural labourers on the basis of proportionate stratified random sampling method. The researcher finds out per capita income and expenditure on the basis of determinants of income, different income groups and family size. This paper mainly point out the problems faced by women agricultural labourers and status of income and expenditure of women agricultural labourers in Madurai district. This paper suggest agricultural sector to increase man power working especially women labour and also to paid correct wages for their effort.*

**Key words:** *Women agricultural labour, Family, Income and Expenditure*

## **Introduction**

Women played an important role in agriculture in most of the countries. Women form a part of the labour force. They produce not merely goods and services, but were also the prime source of activating the human race. In rural India, the percentage of women who depend on agriculture for their livelihood is as high as 84 per cent. Women make up about 33 per cent of cultivators and about 47 per cent of agricultural labourers. Despite their dominance of the labour force women in India still face extreme disadvantage in terms of pay, land rights and representation in local farmers organizations. In India, the typical work of the female agricultural laborer or cultivator is limited to less skilled jobs, such as sowing, transplanting, weeding and harvesting, that often fit well within the frame work of domestic life and child-rearing. Many women also participate in agricultural work as unpaid subsistence labour.

The agricultural wages for women labourers had become comparatively better after passing of the Minimum Wages Act. In Madurai district, the women agricultural labourers are very strong with the help of political patronage. Hence, reduction in the wages rates and the exploitation of labourers by giving them more work or making them work for a longer duration become quite impossible. In recent years, the women agricultural labourers undertake some items of work like harvesting on contract basis where the wages seem to be better than the prescribed minimum wages.

## **Statement of the Problem**

The agricultural sector is one of the main sectors in our country. Male agriculture labour's are mainly working in agriculture sector but women agriculture labour's also contribute in agriculture production. In agriculture sector, illiterate women's are highly involved because they could not find a good job. In our country, women labour force participation is also important, as it helps in economic development. Women's income contributes to their family expenditure which in turn lead to increase in per capita income. Even though women play a significant role in agriculture they get low wage for their work compare to men. Women agricultural labours also facing number of problems like exploitation, long working hours, insecurity of work, health hazards and low socio economic conditions.

## **Objectives**

1. To analyse the annual income of per household of the women agricultural labourers.
2. To estimate the annual expenditure of per household of the women agricultural labourers.

## **Review of Literature**

Many authors study about role of women agricultural labourers, as the women are part of the agriculture sector. They identified many issues relating to women agricultural labourers and provide some solutions to problem faced by women agricultural labourers.

**Makkina Suneeta (2014)** concentrated on examining the female labour participation in India and Andhra Pradesh over a period of time. The study revealed that agriculture is the main occupation of the people and 70 per cent of the people were depending on agriculture and allied activities in rural areas in India, the female work participation rate has increased. As per National Sample Survey, the worker population ratio for males in rural sector was 24.8 per cent in 2011-2012, while that for females was 54.3 per cent. In urban sector, it was 14.7 per cent for females and 54.6 per cent for males. In Andhra Pradesh, the rural area female total workers are increasing than the male total workers, in women work force participation rate in agricultural activities.

**Bibhu Santosh Behera and Anama Charan Behera (2013)** study analysed the role of women in agriculture sector and gender issues in agricultural sector. This study to find out the obstacles of women in agriculture sector and analyse the gender differences in roles and activities in this sector. The women's are more working than men and most of the farming activities is done by females so this era is called as feminization of agriculture and female face of farming. This implies the women based empowerment by agriculture. Finally, they concluded that the rural women are exploited by land lords for their personal good and enrichment. Women are treated as sub-servant or personal property. In this regard government must formulate policies to enhance their skills and their work should be counted in economic indicators.

**Manas Mondal (2013)** study revealed the role of rural women participation in agriculture sector of Sagar Island, West Bengal, India. The study shows that the number of rural agricultural labour changed from 1971 to 2011. Maximum involvement of female agricultural labours in agricultural fields indicates greater income and secure rural economy of this area. Hope participation rate of female agricultural labourers will increase in near future to ensure healthy family income. From the contribution of women to agricultural and food production was significant, but it was impossible to verify empirically the share produced by women. The study recommended that the women must be involved in decision making bodies that have the potential to introduce structural changes. This action will bring some changes in the gender relations in the society.

**Bajinath Singh (2009)** study identified the problems and remedies of agricultural labourers in Bihar. In this regard, the role of voluntary organizations operating in the rural areas might be vital in organizing the women agricultural labourers into the self help groups, since the number of attached women agricultural labourers had been continuously on the decline and the number of casual and contract labourers in agriculture had been rising continuously and the formation of such groups would be feasible and desirable.

**Manimozhi and Kalpana (2005)** study analysed the women agricultural labourers in rural areas. From time immemorial women have been working at homes, fields, factories and various work places, but still they are not recognized as women agricultural labourers in the economic sense of them. The multiple roles played and productive inputs made by women in terms of work hours contributed or equivalent income generated in the family is neither attended women agricultural labourers to recorded.

## Methodology

The study was conducted in Madurai district of Tamilnadu state. The primary data had been collected with the help of a schedule through the direct interview method. Madurai district had been chosen as the universe, and the taluks and blocks as the strata, and the village as the primary unit of sampling and the women agricultural labourers as the ultimate units of the study. Madurai district consists of seven taluks. Out of these taluks, the researcher has selected Vadipatti and Peraiyur taluks where the large number of women agricultural labourers are living. There are 192 villages in two taluks, from these the researcher selects 10 per cent of the villages for the purpose of the present study. Out of 19 villages, the researcher selected 120 women agricultural labourers on the basis of proportionate stratified random sampling method. The correlation and regression analysis had been used for this study.

## Analysis and Interpretation

### Annual Per Capita Income and Determinants of Per Capita Income:

In this section, an attempt had been made to analyse the factors which had determined the per capita income of the agricultural labour households. The factors such as family size, number of earning members, level of employment, productive assets, and the dependency ratio had been selected as the determinants of the per capita income of the households in the study area.

**Table:1 Correlation Matrix Pertaining to the Selected Variables of Women Agricultural Labour Households**

Variables	Y	X <sub>1</sub>	X <sub>2</sub>	X <sub>3</sub>	X <sub>4</sub>	X <sub>5</sub>
Per Capita Income (Y)	1.000					
Family Size X <sub>1</sub>	0.5272*	1.000				
Earning Members X <sub>2</sub>	0.5341*	0.1716	1.000			
Level of Employment X <sub>3</sub>	0.5271*	0.2414	0.3412	1.000		
Productive Assets X <sub>4</sub>	0.4311*	0.0718	0.2016	0.4448*	1.000	
Dependency Ratio X <sub>5</sub>	0.1011	0.4271*	0.1614	0.1068	0.1112	1.000

**Source:** Computed Data

\*Indicates the co-efficient are statistically significant at 5 % level

Table 1 explains determinants of per capita income in women agricultural labour households in Madurai district. The per capita income of a household had been significant and positive relationship with the number of earning numbers (0.5341), level of employment (0.5271), and productive assets (0.4311). It implies that any change in these variables would bring about a difference in the per capita income in the same direction. The per capita income was found to be significantly and negatively correlated (0.5272) with the family size of the women labour household. It has indicated that any change in this variable would lead to a change in the per capita income in the opposite direction.

In order to identify the factors which influence the per capita income, a Multiple Log Linear Regression Model had been estimated separately for the women labour households. The estimated results had been presented in table 2.

**Table: 2 Estimated Results of Multiple Linear Regression Model For Women Agricultural Labour Households**

Variable	Regression Co-efficient	t-value
Intercept( $\beta_0$ )	6.1214	
Family Size ( $\beta_1$ )	-0.3221*	-5.1412
Earning Members ( $\beta_2$ )	0.4272*	3.7241
Level of Employment ( $\beta_3$ )	0.2338*	3.6216
Productive Assets ( $\beta_4$ )	0.1931*	3.5471
Dependency Ratio ( $\beta_5$ )	0.0211	0.0611
R <sup>2</sup>	0.8012	
F-Value	36.42	
No of Observations	420	

**Source:** Computed Data

\*Indicates the co-efficient are statistically significant at 5 % level.

According to the results of table 2 the value of R<sup>2</sup> had indicated that all the explanatory variables together had accounted for 0.8012 per cent of the variations in the per capita income of the households. Out of five independent variables family size, earning members, level of employment and productive assets had been found to be statistically significant at the 5 per cent level and these are positively related to per capita income except family size. In case of family size has negatively related to per capita income. It implied that an additional one per cent increase in this variable reflect a reduction in the per capita income to the extent of 0.3221 per cent. Among the significant variables, the productive assets have greater influence on the determination of the per capita income. The F value has indicated that the fitted regression model was found to be statistically significant at the one per cent level.

### Consumption Expenditure of Various Income Groups and Family Size:

The per capita consumption expenditure based on different income groups had been presented in table 3.

**Table 3: Average Per Capita Consumption Expenditure According to Different Per Capita Income Groups**

Commodity Groups	Per Capita Income Groups				Total
	Below 5000	5000-8000	8000-11000	11000 & Above	
<b>Food</b>	421.540 (19.07)	425.220 (24.83)	429.15 (21.29)	462.22 (29.50)	458.76 (29.27)
<b>Clothing</b>	315.21 (14.25)	316.150 (18.51)	326.61 (16.21)	341.15 (21.77)	261.47 (16.68)
<b>Rent</b>	271.64 (12.28)	175.45 (10.27)	101.21 (5.02)	92.62 (5.91)	74.82 (4.77)
<b>Education</b>	249.65 (11.24)	173.14 (10.14)	221.15 (10.98)	54.21 (3.50)	56.27 (3.59)
<b>Fuel &amp; Lighting</b>	215.21 (9.73)	149.61 (8.76)	211.15 (10.48)	85.15 (5.43)	77.44 (4.94)
<b>Medicine</b>	341.15 (15.42)	215.14 (9.73)	222.19 (11.03)	153.15 (9.73)	144.36 (9.21)
<b>Religious &amp; Social Expenditure</b>	201.21 (9.09)	151.14 (8.85)	341.29 (16.94)	182.16 (11.63)	172.63 (11.01)
<b>Others</b>	196.15 (8.87)	103.15 (6.04)	162.15 (8.05)	196.20 (12.53)	321.63 (20.53)
<b>All</b>	2211.76 (100)	1708.00 (100)	2015.00 (100)	1566.86 (100)	1567.38 (100)

Source: Survey Data

This table indicates the average per capita consumption expenditure of different income groups in Madurai district. The percentage of income spent on food had varied in different income groups. The consumption of non- food expenditure is relatively more or less equal in all income groups. But those who income level of below Rs.5000 could not adjust daily expenditure with the income level.

**Table 4 Averages Per Capita Consumption Expenditure According to Family Size Groups**

Commodity Groups	Family Size			Total
	Below 3	3-5	5 & above	
<b>Food</b>	401.22 (19.88)	398.26 (24.30)	415.45 (22.53)	458.76 (29.27)
<b>Clothing</b>	292.66 (14.47)	310.21 (18.93)	316.24 (17.16)	261.47 (16.68)
<b>Rent</b>	240.15 (11.89)	169.24 (10.33)	111.26 (6.04)	74.82 (4.77)
<b>Education</b>	200.21 (9.92)	165.15 (10.08)	209.15 (11.35)	56.27 (3.59)
<b>Fuel &amp; Lighting</b>	331.15 (16.41)	132.24 (8.07)	201.15 (10.18)	77.44 (4.96)
<b>Medicine</b>	196.24 (9.72)	210.15 (12.82)	202.18 (10.97)	144.36 (9.21)
<b>Religious &amp; Social Expenditure</b>	195.21 (9.67)	149.25 (9.11)	231.22 (12.55)	172.63 (11.01)
<b>Others</b>	162.24 (8.04)	104.15 (6.36)	156.21 (8.48)	321.63 (20.53)
<b>All</b>	2018.59 (100)	1638.65 (100)	1842.86 (100)	1567.38 (100)

Source: Survey Data

This table analyse the per capita consumption expenditure of women agricultural labour according to family size. The food and non- food consumption expenditure varied with from the family size. Thus, it might be concluded from the analysis that family size was an important determinant of respect per capita consumption expenditure.

**Table 5: Estimated Regression Results of Annual Households Consumption Expenditure**

Variables	Parameter Estimates
Intercept ( $\beta_0$ )	0.5472
Annual disposable income ( $\beta_1$ )	0.2581* (5.2111)
Family Size ( $\beta_2$ )	0.3378* (3.7812)
Number of earners in the family ( $\beta_3$ )	0.1124 (1.0121)
Age of head of households upto 30 ( $\beta_4$ )	0.1263 (0.5112)
Age of head of households 30-40 ( $\beta_5$ )	0.1311* (3.5211)
Age of head of households 40 and above ( $\beta_6$ )	0.0791 (0.0111)
R <sup>2</sup>	0.6912
F-value	32.41
No of Observations	420

**Source:** Computed Data

Figures in brackets represent t-values

\*Indicates the co-efficient had been found to be significant at the 5 % level.

This table implies that the regression results of annual households consumption expenditure. The R<sup>2</sup> values had indicated that all the explanatory variables included in the model had been jointly responsible for 69.12 per cent of the variations in the per capita consumption expenditure. The variables like annual disposable income, family size and ages of heads of the households 30-40 years had been found to be statistically significant at the 5 per cent level and these are positively related with per capita consumption expenditure. Among the significant variables, the ages of the head of households of 30 to 40 years had exerted a greater influence on the per capita consumption expenditure. In the case of annual disposable income 0.2581 per cent ( $\beta_1$ ) and family size 0.3378 per cent ( $\beta_2$ ) were additional one per cent increase in per capita consumption expenditures respectively. The F value (32.41) had indicated 5 per cent significant level.

## Conclusion

The women agricultural labourers are mostly illiterate and non-migratory in nature. In Madurai district, women agricultural labourers are working with political primacy, social significance and its economic potentials but socio-economic conditions of agricultural labourers have not change much. Generally, the income of women labour bought low level wages. The per capita income and expenditure of women agricultural labourers are mainly changed by their income level and family size. This paper suggest that agricultural sector need to increase man power in all work especially women labour and also to paid low wages for their effort.

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