

## CHAPTER 5

### SOCIO ECONOMIC DETERMINANTS OF TRIBAL HOUSEHOLD INCOME

---

---

The income of a household is determined by several important factors. The occupation of the head, gender of the head of household, age of the head, literacy, and land ownership are the major factor that determined the income of the household. Tribal people are most vulnerable among the society and belongs to low level of income. Therefore, it has been found relevant to explore the factors to enhance their low level of income. In this chapter an attempt has been made to find out the determinants of income of tribal household.

For the sake of analysis, household total income is taken as dependent variable while occupation of head, gender of head of household, level of education, land ownership and SHGs membership are taken as independent variable.

As the dependent variable (Household monthly income) is continuous in nature, Ordinary Least Square (OLS) method is used for analyzing the data. The multiple regression model is worked out to find out the relationship between household income and various independent variable. The definition, nature and measurement of the regressor variable has been given in table 5.1.

Table 5.2 explains the result of semi-log fitted model. The model is overall significant because the corresponding p-value of F statistics is 0.000 which is less than 0.05. The value of R-square is 0.33 which indicates that approx. 33% of the variation in household income can be predicted from the linear combination of the included independent variables in the model. The coefficient of occupation dummies are positive, implies that there is a positive

impact of occupation on household income. The relative average total income of a household with government service is higher by about 1.52 as compared to the relative average total income of a household with subsistence farmer as an occupation.

| <b>Table 5.1: Definition and Measurement of Explanatory Variables Included in the Models</b> |   |               |                  |
|--|---|---------------|------------------|
| Explanatory Variables  | Definitions and Measurement                                       | Expected Sign | Type of variable |
| <b>Household Characteristics</b>   |   |               |                  |
| Family Size  | Number of members in family                                       | +/-           | Continuous       |
| Gender   | Whether or not head is male (male= 1; female=0)                   | +/-           | Dummy            |
| Self Help Groups   | Whether or not associated with SHG (yes=1;no=0)                   | +             | Dummy            |
| <b>Occupation</b>  |   |               |                  |
| Wage Labour  | Whether or not the household engaged in daily wage job            | +             | Dummy            |
| Govt Service   | Whether or not the household engaged govt. job                    | +             | Dummy            |
| Traditional Farmer   | Whether or not the household traditional farmer                   | +             | Dummy            |
| Subsistence Farmer   | Whether or not the household is subsistence farmer                | +             | Dummy            |
| <b>Assets</b>  |   |               |                  |
| Land   | Land ownership of household (in bigha)                            | +             | Continuous       |
| <b>Education</b>   |   |               |                  |
| Illiterate   | Whether or not head of the household is literate or not           | -             | Dummy            |
| Primary Education  | Whether or not head of the household attained primary education   | +             | Dummy            |
| Secondary Education  | Whether or not head of the household attained secondary education | +             | Dummy            |
| Higher Education   | Whether or not head of the household attained higher education    | +             | Dummy            |

Further the relative average total income with traditional farmer and wage labourer is higher by 0.41 and 0.37 simultaneously as compared to the relative average total income of a household with subsistence farmer as an occupation holding all other variables constant. Among the dummies of education none of the educational level dummy has found significant here. This shows there is no impact of education level on relative average income of the tribal household. This results is the outcome of non availability of quality education in the tribal area.

| <b>Table 5.2 Determinants of Household Income</b> |                          |                |
|---|--------------------------|----------------|
| <b>Explanatory Variables</b>                      | <b>Coefficient Value</b> | <b>P-value</b> |
| <b>Household Characteristics</b>                  |                          |                |
| Family Size                                       | 0.087                    | 0.000*         |
| Gender  | 0.152                    | 0.319          |
| Self Help Groups                                  | -0.012                   | 0.902          |
| <b>Occupation</b>                                 |                          |                |
| Semi/unskilled wage labour                        | 0.371                    | 0.019**        |
| Govt. Services                                    | 1.52                     | 0.000*         |
| Traditional Farmer                                | 0.413                    | 0.016**        |
| <b>Assets</b>                                     |                          |                |
| Land  | 0.019                    | 0.007*         |
| <b>Education</b>                                  |                          |                |
| Primary Education                                 | -0.042                   | 0.839          |
| Secondary Education                               | -0.215                   | 0.297          |
| Higher Education                                  | -0.326                   | 0.140          |
| <b>Constant</b>                                   | 8.112                    |                |
| <b>Observation</b>                                | 310                      |                |
| <b>Prob&gt;F</b>                                  | 0.000                    |                |
| <b>R<sup>2</sup></b>                              | 0.333                    |                |

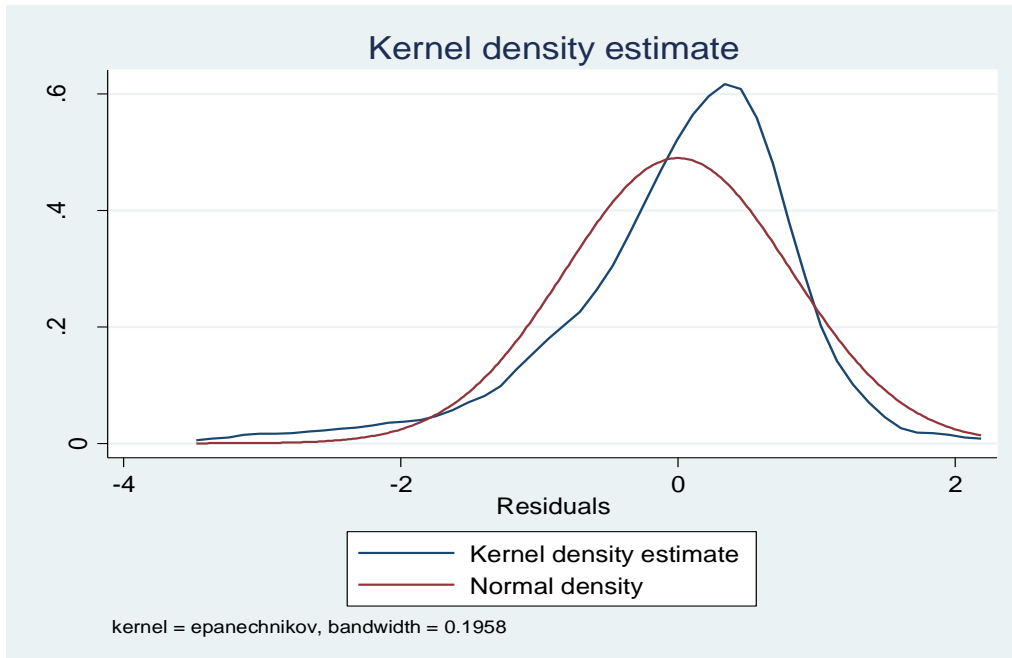
Source: Author's estimation using primary survey data, Note: significant at \*\* p<0.05, \*

p<0.1

The explanatory variable family size has been found significant and positive in case of tribe. It can be interpreted that one unit change in the family size will lead to 0.087 unit change in the relative income of the tribal household. On the contrary, the variable gender and SHGs is found insignificant here which shows that there is no impact of SHGs membership and gender of household on relative average income of household.

The variable of assests category land ownership is found significant which shows that one unit change in land leads to 0.019 unit change in relative household income. This shows that whatever the land available to them is productive and income generating.

Figure 5.1 Results of the Normality of Residuals



| <b>Variable</b> | <b>VIF</b>  | <b>1/VIF</b> |
|-----------------|-------------|--------------|
| SE              | 4.65        | 0.215        |
| PE              | 4.20        | 0.237        |
| HE              | 3.85        | 0.261        |
| TF              | 3.23        | 0.309        |
| WL              | 2.66        | 0.375        |
| Land            | 1.62        | 0.617        |
| GS              | 1.61        | 0.619        |
| FS              | 1.20        | 0.830        |
| Gen             | 1.08        | 0.926        |
| SHGS            | 1.04        | 0.957        |
| <b>Mean VIF</b> | <b>2.51</b> |              |

Source: Authors estimation by using stata software

The above table 5.3 shows the result of Variance Inflation Factor (VIF). It is clear from the table that total mean VIF is 2.51 and VIF of each explanatory variable is less than 5. Therefore it means that there is no high correlation between the explanatory variables.