**Chapter 5**

**Result and discussion**

**Female labour force participation: An Empirical Analysis**

**Gender composition of household**

|  |  |  |  |
| --- | --- | --- | --- |
| Block | Male | Female | Total |
| Bokhakat | 251 | 41 | 291 |
| Gomariguri | 39 | 3 | 43 |
| overall | 290 | 44 | 334 |

**Age composition of the member of the household:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Block | 0-14 years | 15-59 | 59 and above | Total |
| Bokhakat | - | 253 | 38 | 291 |
| Gomariguri | - | 30 | 13 | 43 |
| Overall | - | 283 | 51 | 334 |

**Distribution of all sample members by age :**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Age | Block I | |  | Block II | |  |  |
| Frequency (male ) | Frequency  (female ) |  | Frequency  (female ) | Frequency  (female ) |  | Total |
| 0-7 | 57 | 34 |  | 8 | 0 |  | 99 |
| 8-14 | 77 | 53 |  | 14 | 5 |  | 149 |
| 15-23 | 102 | 109 |  | 13 | 14 |  | 238 |
| 24-35 | 201 | 237 |  | 24 | 39 |  | 501 |
| 36-50 | 104 | 139 |  | 9 | 19 |  | 171 |
| 51-60 | 10 | 8 |  | 1 | 7 |  | 26 |
| 60 and above | 3 | 3 |  | 0 | 2 |  | 8 |

**Labour force category (total study area)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Employed (participation ) | | Unemployed (not in participation ) | | Total |
| Male | Female | Male | Female |
| 231 | 42 | 59 | 2 | 334 |

**Household size** :

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Block | Small | Medium | Large | Total |
| Bokakhat | 150 | 98 | 43 | 291 |
| Gomariguri | 22 | 16 | 5 | 43 |

**Sex ratio :**

|  |  |
| --- | --- |
| Block | Sex ratio |
| Bokakhat | 0.5964 |
| Gomariguri | - |
| Overall | 0.5964 |

**Family type :**

|  |  |  |  |
| --- | --- | --- | --- |
| Block | Nuclear | Joint | Total |
| Gomariguri | 270 | 21 | 291 |
| Bokakhat | 41 | 2 | 43 |

**Marital status** :

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Block | Unmarried | Married | Divorced/separated | Widow | Total |
| Gomariguri | 3 | 260 | - | 37 | 291 |
| Bokakhat | - | 43 | - | - | 43 |
| Overall | 3 | 293 | - | 37 | 334 |

**Literacy rate :**

|  |  |  |  |
| --- | --- | --- | --- |
| Sex | Bokakhat | Gomariguri | Overall |
| Male | 39 | 252 |  |
| Female | 2 | 41 |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Overall | | | All ST’s | | Missing tribe | |
|  | 2001 | 2011 | 2001 | | 2011 | 2001 | 2011 |
| India |  |  |  | |  |  |  |
| Assam |  |  |  | |  | - | - |
| Golaghat |  |  |  | |  | - | - |

**Educational attainment of the members of the household:**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Block |  | Illiterate | 1-4th standard | 5-9th standard | 10th passed | 12th passed | Graduate | Post graduate | Total |
| Bokakhat | Male | 45(30.5) |  |  |  |  |  |  |  |
| Female |  |  |  |  |  |  |  |  |
| Gomariguri | Male |  |  |  |  |  |  |  |  |
| Female |  |  |  |  |  |  |  |  |
| Overall |  |  |  |  |  |  |  |  |  |

**Housing Information:**

**Type of house**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Block | Pucca | Semi pucca | Kutcha | Total |
| Bokakhat | 19 | - | 24 | 43 |
| Gomariguri | 28 | 8 | 255 | 291 |
| Overall | 47 | 8 | 279 | 334 |

**Floor area per square foot**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Block | 0-20 | 21-30 | 31-40 | 41 and above | Total |
| Bokakhat | 56(67.4) |  |  |  |  |
| Gomariguri |  |  |  |  |  |
| Overall |  |  |  |  |  |

**Number of living room**:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Block | 1 | 2 | 3 | 4 | 5 | 6 | 7 and above | Total |
| Gomariguri | 0 | 0 | 0 | 4 | 47 | 224 | 5 | 280 |
| Bokakhat | 0 | 0 | 0 | 0 | 0 | 41 | 0 | 41 |
| Overall | 0 | 0 | 0 | 4 | 47 | 265 | 5 | 321 |

**Floor structure : floor made up of**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Block | Mud | RCC | Bamboo and wooden | Total |
| Gomariguri | 28 | 5 | 252 |  |
|  |  |  |  |
| Bokakhat | 0 | 0 | 39 |  |
|  |  |  |  |
| Overall |  |  |  |  |
|  |  |  |  |

**Sanitation facility**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Block | Pucca | Semi pucca | Kutcha | Open/outside | Total |
| Bokakhat | 16 | 0 | 24 | 1 |  |
| Gomariguri | 15 | 15 | 248 | 11 |  |
| Overall |  |  |  |  |  |

**Sources of drinking water**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Block | Tap | Well | Hand-pump | Tube-well | River/pond | Others | Total |
| Bokakhat | 0 | 0 | 0 | 40 | 0 | 1 |  |
| Gomariguri | 2 | 0 | 0 | 199 | 1 | 91 |  |

**Electrification of houses**

|  |  |  |  |
| --- | --- | --- | --- |
| Block | Yes | No | Total |
| Bokakhat | 39 | 2 |  |
| Gomariguri | 248 | 45 |  |
| Overall |  |  |  |

**Type of fuel used for cooking**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| `Block | Wood | Kerosene | Gas (LPG) | Woods and Gas | Total |
| Bokakhat | 23 | 0 | 18 | 0 |  |
| Gomariguri | 62 | 0 | 134 | 7 |  |
| Overall |  |  |  |  |  |

**Type of road**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Block | Soil | Sand and stone | Metalled/pitch | Total |
| Bokakhat |  |  |  |  |
| Gomariguri |  |  |  |  |
| Overall |  |  |  |  |

**Occupational distribution:**

**Occupational Distribution of the principal Earner of the household**.

|  |  |  |  |
| --- | --- | --- | --- |
| Occupation | Bokakhat | Gomariguri | Total |
| Service | 0 | 4 |  |
| Agriculture Labour | 0 | 7 |  |
| Cultivator | 0 | 0 |  |
| Business & Self Employed | 39 | 266 |  |
| Non-Agriculture Labour | 2 | 8 |  |
| Overall |  |  |  |

**Block wise percentage distribution of daily activity pattern of the household by sex**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Block | Sex | Service | Agriculture Labour | Cultivator | Business & Self Employed | Non-Agriculture Labour |
| Bokakhat | Male | 0 | 0 | 0 | 38 | 2 |
| Female | 0 | 0 | 0 | 2 | 0 |
| Gomariguri | Male | 3 | 6 | 0 | 231 | 8 |
| Female | 1 | 0 | 0 | 34 | 0 |

**5.2: Descriptive statistics**

**Female Participation Rate:**

**Distribution of female participation rate and composition of main and marginal workers of STs .**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Employed (participation rate) | | | Main worker | | | Marginal worker | | |
| Male | female | total | Male | Female | Total | Male | Female | Total |
| All STs of India | Total |  |  |  |  |  |  |  |  |
| Rural |  |  |  |  |  |  |  |  |
| Urban |  |  |  |  |  |  |  |  |
| All STs of Assam | Total |  |  |  |  |  |  |  |  |
| Rural |  |  |  |  |  |  |  |  |
| Urban |  |  |  |  |  |  |  |  |
| All STs of Golaghat district | Total |  |  |  |  |  |  |  |  |
| Rural |  |  |  |  |  |  |  |  |
| Urban |  |  |  |  |  |  |  |  |

**Distribution of participation rate and composition of main and marginal workers among sample of Mising**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Blocks | WPR | | | Main worker | | | | Marginal worker | | |
| Male | Female | Total | | Male | Female | Total | Male | Female | Total |
| Bokakhat |  |  |  | |  |  |  |  |  |  |
| Gomariguri |  |  |  | |  |  |  |  |  |  |

**Female labour force Participation Rate among Mising household**:

|  |  |  |  |
| --- | --- | --- | --- |
| Block | Employed | Unemployed | Overall |
| Bokakhat |  |  |  |
| Gomariguri |  |  |  |
| Total |  |  |  |

**Occupation wise household with women participation and not in participation in labour force.**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Occupation | Women employedhousehold N= | | | | Women unemployed household N=  N= | | | |
|  |  |  |  |  |  |  |  |
| Service |  |  |  |  |  |  |  |  |
| Agriculture Labour |  |  |  |  |  |  |  |  |
| Cultivator |  |  |  |  |  |  |  |  |
| Business & Self Employed |  |  |  |  |  |  |  |  |
| Non-Agriculture Labour |  |  |  |  |  |  |  |  |
| Total |  |  |  |  |  |  |  |  |

**Block Wise percentage Distribution:**

**Daily work pattern / activity of Mising women:**

|  |  |  |  |
| --- | --- | --- | --- |
| Activity | Bokakhat | Gomariguri block | Overall |
| Service | 0 | 1 |  |
| Agriculture Labour | 0 | 1 |  |
| Cultivator | 0 | 0 |  |
| Business & Self Employed | 2 | 34 |  |
| Non-Agriculture Labour | 0 | 5 |  |
| Total | 2 | 41 |  |

**Activity wise female Labour force participation and marital status of among Mising Tribe**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Activity | M | Un | Divorced/separated | Widow |
| Service | 0 | 0 | 0 | 1 |
| Agriculture Labour | 0 | 1 | 0 | 0 |
| Cultivator | 0 | 0 | 0 | 0 |
| Business & Self Employed | 5 | 1 | 0 | 30 |
| Non-Agriculture Labour | 0 | 0 | 0 | 0 |
| Total |  |  |  |  |

**Age wise Female Labour Participation Rate among Mising household : (15-59**)

|  |  |  |
| --- | --- | --- |
| Age group | Bokakhat | Gomariguri block |
| 15-24 | 0 | 0 |
| 24-34 | 0 | 0 |
| 35-44 | 1 | 13 |
| 45-54 | 0 | 19 |
| 55-59 | 1 | 9 |

**Age wise marital status of among Mising Tribe**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Age group | M | Un | Divorced/separated | Widow |
| 15-24 | 0 | 0 | 0 | 0 |
| 24-34 | 1 | 0 | 0 | 0 |
| 35-44 | 4 | 1 | 0 | 8 |
| 45-54 | 0 | 1 | 0 | 17 |
| 55-59 | 1 | 0 | 0 | 1 |
| Total |  |  |  |  |

Age wise activity status :

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Age group | Service | Agriculture Labour | Cultivator | Business & Self Employed | Non-Agriculture Labour |
| 15-24 |  |  |  |  |  |
| 24-34 |  |  |  |  |  |
| 35-44 |  |  |  |  |  |
| 45-54 |  |  |  |  |  |
| 55-59 |  |  |  |  |  |

Age wise education status of female participation :

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Age group | Illiteracy | 1-4th class | 5th- 9th Class | 10th Passed | 12th  Passed | Graduate | Post Graduate | Total |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Total |  |  |  |  |  |  |  |  |

Marital status wise education status of female participation

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Marital status | Illiteracy | 1-4th class | 5th- 9th Class | 10th Passed | 12th  Passed | Graduate | Post Graduate | Total |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Total |  |  |  |  |  |  |  |  |

**Consumption expenditure of the household :**

**Share of different items of consumption expenditure of household with participation and non participationwomen**  :

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item groups of MPCE monthly per capita consumption pattern of the household (rs... ) | Household with employed women | | Household with unemployed women | |
| Bokakhat | Gomariguri block | Bokakhat | Gomariguri block |
| Food and nutrition |  |  |  |  |
| Fuel |  |  |  |  |
| Clothing |  |  |  |  |
| Education |  |  |  |  |
| Health |  |  |  |  |
| Electricity bill |  |  |  |  |
| Telephone bill/ mobile bill |  |  |  |  |
| Recreation &religious activity |  |  |  |  |
| Pocket money (children, wife &old age ) |  |  |  |  |
| Travelling expenses |  |  |  |  |
| Others |  |  |  |  |

**Frequency distribution of monthly per capita consumption among households: (N=334).**

|  |  |  |
| --- | --- | --- |
| Range of MPCE monthly per capita consumption pattern of the household | Frequency | Percentage |
| 1000-2000 |  |  |
| 2000-3000 |  |  |
| 3000-4000 |  |  |
| 4000-5000 |  |  |
| 5000-6000 |  |  |
| 6000 and above |  |  |

**Frequency distribution of monthly per capita consumption among households of block -1 and block -2 :**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Range of MPCE monthly per capita consumption pattern of the household | Bokakhat (N=) | | Gomariguri (N=) | |
| Frequency | Percentage | Frequency | Percentage |
| 1000-2000 |  |  |  |  |
| 2000-3000 |  |  |  |  |
| 3000-4000 |  |  |  |  |
| 4000-5000 |  |  |  |  |
| 5000-6000 |  |  |  |  |
| 6000 and above |  |  |  |  |

**Frequency distribution of Economic status of the household (Based on Monthly consumption expenditure)**

|  |  |  |  |
| --- | --- | --- | --- |
| Block | Low Economic Status (2000-6000) | Medium Economic Status (6000-10,000) | High economic status (10000 and above ) |
| Bokakhat |  |  |  |
| Gomariguri |  |  |  |
| Overall |  |  |  |

**Economic status of the household based on monthly consumption expenditure across marital status of labour force participation:**

|  |  |  |  |
| --- | --- | --- | --- |
| Marital status | Low | Medium | High |
| Unamrried |  |  |  |
| Married |  |  |  |
| Widow |  |  |  |

**Income Distribution Pattern:**

**Frequency distribution of monthly per capita income among sample Mising household :( N=334 )**

|  |  |  |
| --- | --- | --- |
| MPCI (rs ) | Frequency | Percentage distribution |
| <1001 |  |  |
| 1001-2000 |  |  |
| 2001-3000 |  |  |
| 3001-4000 |  |  |
| 4001-5000 |  |  |
| 5001-6000 |  |  |
| 6000 and above |  |  |

**Frequency distribution of monthly per capita income among sample Mising household of block -1 and block -2 :**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| MPCI (rs) | Bokakhta =N | | Gomariguri N= | |
| Frequency | Percentage | Frequency | Percentage |
| <1001 |  |  |  |  |
| 1001-2000 |  |  |  |  |
| 2001-3000 |  |  |  |  |
| 3001-4000 |  |  |  |  |
| 4001-5000 |  |  |  |  |
| 5001-6000 |  |  |  |  |
| 6000 and above |  |  |  |  |

**Occupation wise household distribution on the basis of monthly per capita income (MPCI)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| MPCI (rs ) | Service | Agriculture Labour | Cultivator | Business & Self Employed |
| <1001 |  |  |  |  |
| 2001-3000 |  |  |  |  |
| 3001-4000 |  |  |  |  |
| 4001-5000 |  |  |  |  |
| 5001-6000 |  |  |  |  |
| 6000 and above |  |  |  |  |

**Descriptive statistical analysis :**

**Summary statistics of Activity wise marital status of female labour force participation of the household :(Total household =334)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Activity** | **Married** | **Unmarried** | **Divorced/separated** | **Widowed** | **Mean** | **SD** |
| Service |  |  |  |  |  |  |
| Agriculture Labour |  |  |  |  |  |  |
| Cultivator |  |  |  |  |  |  |
| Business & self Employed |  |  |  |  |  |  |
| Non-agricultural Labout |  |  |  |  |  |  |

**Summary statistics of Economic Status of the household across marital status of labour force participation ( Total household= ....... )**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Marital status | Low economic status | Medium economic status | High economic status | Mean | SD |
| Married |  |  |  |  |  |
| Unmarried |  |  |  |  |  |

**Summary statistics of differential marital status of daily activities among women in economic status of the household** :

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Activity | Low economic status | | Medium economic status | | High economic status | | Mean | SD |
| Married | Unmarried | Married | Unmarried | Married | Unmarried |

**Constrain faced by during participation of female labour force** :

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Constrains | Block -1 | | Block -2 | |
| Frequency | Percentage | Frequency | Percentage |
| Lack of opportunities education |  |  |  |  |
| lack of appropriate education |  |  |  |  |
| lack of required skills |  |  |  |  |
| Lack of experience |  |  |  |  |
| Responsibilities at home |  |  |  |  |
| low wage |  |  |  |  |
| social problem |  |  |  |  |

**Like to opt. for better livelihood or economic upliftment of female participation rate**

|  |  |  |  |
| --- | --- | --- | --- |
| Marital status | Yes | No | Total |
| Block -1 |  |  |  |
| Block -2 |  |  |  |
| Overall |  |  |  |

**Objectives-1 :**

**Hypotheses :**

There is no significant effect of the determinant factors(**Flood, Occupation of head of the household, Distance from the nearest urban area, Family type, MGNREGA, sex ratio ,Education level PIM ,MID ,SEC, Dependency ratio, Land holding, Household size ,Indebtedness, Monthly per capita consumption expenditure of the household**) in inter- block variation of women labour force participation in study area.

**The Breusch-Pagan Test for Heteroskedasticity :**

Heteroscedasticity denotes that the error variance is not constant. The explanatory factors should not influence the residual variance. One of the most popular tests for Heteroskedasticity is the Breusch Pagan test. It starts by permitting the Heteroskedasticity process to be a function of one or more of your independent variables, and it is often used by assuming that Heteroskedasticity can be a linear function of all the independent variables in the model. The test searches for a linear connection between the predictors and the squared error term. The test can be expressed in an auxiliary regression form, in which the proposed model's squared residuals are regressed on the variables thought to be the source of the Heteroscedasticity**.**

**This assumption can be expressed as estimation of**

***ɛᵢ² = α₀+α₁xᵢ₁+……...αᵨxᵢᵨ+µi***

*The values for* ***ɛᵢ²****are not known in practice, so, the* ***ἐᵢ²*** *are calculated from the residuals and used as proxies for* ***ɛᵢ².***

*Generally, the BP test is based on the* ***ἐᵢ²=α₀+α₁xᵢ₁+……...αᵨxᵢᵨ+µi.***

*Alternatively, a BP test can be performed by estimating* **ἐᵢ2=δ₀ + δ₁Ŷᵢ** where, Ŷ represented the predicted values from ***Ŷᵢ=β˄₁Xᵢ₁+…..+β˄ᵨXᵢᵨ.***

Various steps of BP model :

Step 1: Estimate your model, ***Yᵢ=β₀+β₁Xᵢ₁+….+βᵨXᵢ₁+ɛᵢ9***

Step 2: Obtain the predicted **Y values(*Ŷᵢ*)** after estimating the model.

Step 3: estimate the auxiliary regression **ἐᵢ²=δ₀+δ₁Ŷᵢ9**using OLS.

Step-4: Retain the R-squared value**Rἐ2**from this auxiliary regression.

Step 5: Calculate the **F *=*,** or the chi-squared statistic, ***x2=n*Rἐ\*2**

Independent variables should not be jointly significant under the null hypothesis. The F-statistics for testing the combined significance of all independent variables are Determine the F statistic. For the F test, the degrees of freedom are 1 in the numerator and n-2 in the denominator. The chi-squared test has a degree of freedom of one. If one of these test statistics is significant, Heteroskedasticity is present. If you don't, you won't be able to reject the null hypothesis of homoskedasticity.

**Regressors of inter block variation :**

|  |  |  |
| --- | --- | --- |
| Explanatory Variables used in Regression Model | | |
| Variables | Symbol | Definition /Description |
| Dependent variable = Female participate in labour force | FLP | 1= if the Female participate in labour force ; else 0.) |
| Flood prone area | FPA | 1=if the household resides in a flood affected area and 0=otherwise |
| Occupation of head of the household | OHH | 1= if house hold head occupation is agriculture (self employed) and 0= otherwise. |
| Distance from the nearest urban area | REMOTENESS | Least minimum possible time required to reach the nearest urban centre |
| Family type | FT | 1= if joint family and 0 =otherwise |
| MGNREGA | MGNREGA | 1= if household has MGNREGRA account 0= otherwise |
| sex ratio | SR | Females per 1000 males total population . it is normalized to 100 |
| Dependency ratio | DR | Number of dependents divided by number of earning members of the household multiplied by 100 |
| Marital status | MARTS | 1= if women are married and 0= otherwise |
| Education level PIM | PIM | 1= if women are primary school pass 0= otherwise |
| MID | MID | 1= if women are middle school pass 0= otherwise |
| SEC | SEC | 1= if women are secondary school pass 0 = otherwise . |
| Land holding | LH | Land holding by the household in bigha. |
| Household size | HOUS | Number of member in the household |
| Indebtedness | INDEBTED | 1= if the household has indebted and 0= otherwise |
| Monthly per capita consumption expenditure of the household | MPCE | House hold expenditure monthly divided by size of the household . |

**Result :**

**Objectives -2 :** Hypotheses : **The mean differences in consumption pattern of married and unmarried women of labour force participation and no relation between consumption expenditure and female labour force participation** .

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item groups of MPCE monthly per capita consumption pattern of the household (rs... | Household with married women | Household with unmarried women | Mean difference | S.E. of mean difference | t- Statistic |
| Food and nutrition |  |  |  |  |  |
| Fuel |  |  |  |  |  |
| Clothing |  |  |  |  |  |
| Education |  |  |  |  |  |
| Health |  |  |  |  |  |
| Electricity bill |  |  |  |  |  |
| Telephone bill/ mobile bill |  |  |  |  |  |
| Recreation &regigious activity |  |  |  |  |  |
| Pocket money (children , wife &old age ) |  |  |  |  |  |
| Travelling expenses |  |  |  |  |  |
| Others |  |  |  |  |  |

Regression relationship result :

FLPR=const+b1 (APCE)+b2(APCE)+ Error term

Hypothesis -3 :

**At the household level, there is no substantial difference in different activity statuses among women and effect some determinant factors of levels of development**

Regression relation ship :

FLPRi = a.AMPCEi + b.AMPCIFi + error term

We: FLPRi = a + (b1 .AMPCEi ) + (b2 .AMPCE2 i ) + (b3.AMPCI Fi ) +error term

AMPCE – Average Monthly Per Capita Consumption Expenditure

AMPCI – AverageMonthly per capita income Females (agriculture activities + non-agriculture activities )

X – other factors (set of controlled variables); U – Error/disturbance Term

**The following are:**

**The other variables included in the regression:**

**Levels of Development and Female Labour Force Participation Rates**

**X1 (CultH%) percentage of cultivators households to total rural households;**

**X2 (PERC%) percentage of rural females who had educational levels primary and above;**

**X3 (Ch14%) percentage of child population below 15 years of age to the total rural population;**

**X4 (Sex Ratio) Sex Ratio in general in rural areas**

**Objectives 4:**

Hypotheses: 4.

**To look at the socioeconomic and demographic variables that affect women's involvement in the labour force in the research region. The total estimate that affects the female labour force participation rate.**

Logit or logistic regression:

**Summary information of female labour force participation: all women**

|  |  |  |
| --- | --- | --- |
| **Variables** | **All Women (N=)** | |
| **Mean** | **Standard Deviation** |
| Women labour force participation |  |  |
| Household characteristics | | |
| Household Size |  |  |
| Household Income |  |  |
| Household Indebtness |  |  |
| Occupation of head of the household |  |  |
| Type of household |  |  |
| Total number of rooms in the household |  |  |
| Floor type of the household |  |  |
| Economic status | | |
| Low |  |  |
| Middle |  |  |
| High |  |  |
| Other socio- economic , demographic factors | | |
| EDUCM |  |  |
| EDUCF |  |  |
| EDUS |  |  |
| EDUC I |  |  |
| EDUC II |  |  |
| EDUC III |  |  |
| EDUC IV |  |  |
| EDUC V |  |  |
| AGE 1 |  |  |
| AGE 2 |  |  |
| AGE 3 |  |  |
| AGE 4 |  |  |
| AGE 5 |  |  |
| HUBW |  |  |
| HUBSL |  |  |
| PHAST |  |  |
| FAMUP |  |  |
| Indebtness |  |  |
| Other variables | | |
| NOCHD |  |  |
| CHLDA |  |  |
| CHLDB |  |  |
| CHLDC |  |  |
| NDEPT |  |  |
| FHH |  |  |
| Flood Prone |  |  |
| Residential Status |  |  |
| Family Support |  |  |
| Agriculture |  |  |

**Result :**

Model -1 **FLFPR** = Dummy variable coded 1 if the Female participate in labour force (age group 15-59 ) ; else 0. (all women 15-59 )

Model -2 Married= if the married women participation in laboure force (age 15-59 ); else 0 (including divorced/separated )

Model -3 unmarried = if the unmarried women participation in labour force ( 15-59 ) ; else 0

already one example given of all women

**EXPLANATORY VARIABLES :**

**Household characteristics:**

|  |  |
| --- | --- |
| **Agriculture** | = (Self-employed) dummy (1 if the principal earning member of the household is engaged in the agriculture and 0 otherwise). |
| **MPCHCE** | = Monthly per capita household consumption expenditure |
| **HSIZE** | = Household size (no. of members in the household). |
| **DEPR** | = Dependency ratio (no. of dependents divided by no. of earning members multiplied by 100). |
| **EDUPEM** | = Education of principal earning member (no. of years spent in formal education). |
| **LH** | = Land holding by the household in bigha. |
| **HT** | = Household type, joint family = 1 & unitary = 0. |
| **AGEPEM** | = Age (years) of principal earning member of the household. |
| **CHILDREN** | = Number of children in the household aged 14 years or less |
| **REMOTENESS** | = Least or minimum possible time (in minute) required to reach the district headquarter. |
| **FLOOD** | Dummy, 1 if the household resides in a flood affected area and 0 otherwise. |
| **DEBT** | = Amount of debt of the household |

**Female Socio – Economic, Education and Demographic variables:**

**Education:**

EDUC I = 1 if the women’s level of education is up to Primary; else 0.

EDUC II = 1 if the women’s level of education is up to high school level; else 0.

EDUC III = 1 if the women’s level of education is H.S. level; else 0.

EDUC IV = 1 if the women’s level of education is up to U.G. level; else 0.

EDUC V = 1 if the women’s level of education is P. G. and more; else 0.

**Age Groups (15-59)**

AGE 1 = 1 if the women belongs to age group (15-24) years; else 0.

AGE 2 = 1 if the women belongs to age group (25-34) years; else 0.

AGE 3 = 1 if the women belongs to age group (35-44) years; else 0.

AGE 4 = 1 if the women belongs to age group (45-54) years ; else 0.

AGE 5 = 1 if the women belong to age group (55-59) years ;else 0.

**Marital Status:**

**MARTS = Marital status of the Female**

**Marital Status**

1=if employed female is married (married, widow/separated, divorced)

0=if female is unmarried

**Your Closed relative educational Status:**

EDUC M = 1 if female’s mother is educated and ‘0’ otherwise.

EDUC F = 1 if female’s father is educated and ‘0’ otherwise.

EDUS = 1 if spouse/ husband is educated and ‘0’ otherwise.

**Other Variables:**

NOCHD = Number of Children in the Family.

CHLDA = 1 if the children belong to the age group (0-2); else 0.

CHLDB = 1 if the children belong to the age group (3-6); else 0

CHLDC = 1 if the children belong to the age group (7-14); else 0.

NDEPT = Total number of dependents in the family.

HSIZE = Household Size in numbers

FHH = 1 if female from female headed household and “0” otherwise.

Flood prone = 1 if female comes flood prone area family and 0 otherwise.

Residential status = 1 if house is permanent and 0 otherwise.

Family support = 1 if your family / husband support to your profession and 0 otherwise.

|  |  |
| --- | --- |
| Agriculture | = (self-employed) dummy (1if household head means principal earner is engaged in the agriculture and 0 otherwise). |

Economic status = 1 economic status of female belongs to - low, high, middle (based on family MPCE

HUBW = 1 if the women’s husband is working; else 0.

HUBSL = 1 if husband is salaried; else 0.

PHAST = 1 if women have assets; else 0.

FAMUP = 1 if women belong to joint family; else 0.

Indebtedness =1 if your family has indebtedness; else 0**.**

**All women example =**

|  |  |  |  |
| --- | --- | --- | --- |
| Explanatory Variables | Coefficients | Wald-Statistics | Marginal Effect |
| Constant |  |  | - |
| Educational Attainment (Illiterate education reference category) | | | |
| EDUC II |  |  |  |
| EDUC III |  |  |  |
| EDUC IV |  |  |  |
| EDUC V |  |  |  |
|  | | | |
| AGE 1 |  |  |  |
| AGE 2 |  |  |  |
| AGE 3 |  |  |  |
| AGE 4 |  |  |  |
|  | | | |
| EDUCM |  |  |  |
| EDUCF |  |  |  |
| EDUS |  |  |  |
|  | | | |
| HUBW |  |  |  |
| HUBSL |  |  |  |
| PHAST |  |  |  |
| FAMUP |  |  |  |
| Indebtness |  |  |  |
|  | | | |
| MARTS |  |  |  |
| NOCHD |  |  |  |
| CHLDA |  |  |  |
| CHLDB |  |  |  |
| CHLDC |  |  |  |
| NDEPT |  |  |  |
| FHH |  |  |  |
| Flood Prone |  |  |  |
| Residential Status |  |  |  |
| Family Support |  |  |  |
| Agriculture |  |  |  |
| MPCHE |  |  |  |
| HSIZE |  |  |  |
| DEPR |  |  |  |
| EDUPEM |  |  |  |
| LH |  |  |  |
| HT |  |  |  |
| AGEPEM |  |  |  |
| CHILDREN |  |  |  |
| REMOTNESS |  |  |  |
| FLOOD |  |  |  |
| DEBT |  |  |  |

**\*\* means significant at 1% level of significance**

* **means significant at 5% level of significance**

|  |  |  |  |
| --- | --- | --- | --- |
| **Model Summary** | | | |
| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|  |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Hosmer and Lemeshow Test** | | | |
| Step | Chi-square | df | Sig. |
|  |  |  |  |