CHAPTER-VI

VARIATIONS IN

AGRICULTURAL WORK PARTICIPATION RATE
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There are considerable variations in the female participation rate in agriculture depending upon caste, region and between caste communities and tribal communities. Moreover, economic condition of the family, educational status, age, type of habitation (rural/urban) etc. also plays a distinctive role in female work participation rate.

Women constitute a significant part of the work force in the country. Majority of rural women workers are employed in agriculture as labourers and cultivators. In the urban areas, women workers are also employed in other unorganized sectors such as household industries, petty trades and services etc. A majority of women carry a disproportionately greater burden of work than men, as women are also traditionally responsible for a greater share of work in the care economy (i.e. home based works).

The Female Economic Activity Rate (FEAR) or the proportion of female population aged 15 years and above who furnish or are available to furnish, the supply of labour for production of goods and services for India is 42 per cent (UNDP, 2003). The female to male ratio of participation in economic activity (F/M) for India is 50. The sectoral profile of female work force indicates that most of the female workers are engaged in the agriculture sector in rural areas. In the urban areas, variation of female work participation from the primary to the tertiary sector is visible which may indicate that urban women have been able to take advantage of the increased

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employment opportunities. The distribution of female work participation by status of employment indicates that there is a pronounced declining trend in the importance of the self-employed category in both rural and urban areas and there is an overall increase in the casualisation of the women work force in rural areas. In urban areas there's a reversal of this trend with an increase in work participation rates of females under regular employment category and a decline in casualisation. In rural areas female work participation rate has been the highest at 58.6 per cent in the age group of 40-44 and is above 50 per cent in the age group 30-54. Early marriage and multiple childbearing depress the female work force participation rates in the 15-29 age groups in India in contrast to developed countries, where the age group of 15-25 exhibits a peak in women's workforce participation rates.

Restructuring the economy of a poor district like Dhemaji needs a comprehensive policy framework emphasizing on increasing agricultural production. The implications of such a framework for women farmers need to be adequately explored in this flood ravaged district of Assam conforms the actual conditions on the ground. The process of making production cost of cash crops competitive can primarily be done through reducing labour costs, as there is abundance of human resources available in the district. Women in the family farms provide cashless labour force and are also shouldering the tedious tasks involved with cash crop production, wherever such crops are grown.

Apart from agriculture the Home-based work is a significant source of employment in many parts of the world. There is a significant increase in the number of women workers in the home-based sector in recent times. However, despite
increased recognition of the home-based sector to the overall economy, home workers remain largely invisible. The majorities of these workers are deprived of access to any form of organizational support, social security which constitutes the most vulnerable segments of the workforce.

Regardless of the ethnic variation, personal, demographic and socio-economic profiles of the tribal women workers and economically backward non-tribal women workers within the district reflects that housework (child care and household chores) and economically extended work (i.e., fetching of water, firewood and edible forest products), which are crucial for family’s survival, are still exclusively a women’s responsibility. The female children of the family also extend their helping hand for the above tasks apart from taking care of their infant brothers and sisters. On the whole, distribution of task responsibility and help received for housework and economically extended work was gender biased and divided along traditional lines, irrespective of women’s work status. It may be because of the cultural view that women do the housework and men do the outdoor work (Sethi, 1991). According to Phillips and Taylor (1980) a generalized view hold true throughout the world that the unpaid domestic work is everywhere seen as women’s work or women’s responsibility.

In the present study the female work participation rate among different ethnic groups reveals that the tribal women are involved in a higher proportion in various

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activities related to agriculture than their non tribal counterpart. The Table 6.1 depicts the FWPR of respondents of different ethnic groups residing in Dhemaji District of Assam.

### Table 6.1: FWPR of respondents of different ethnic groups in Dhemaji

<table>
<thead>
<tr>
<th></th>
<th>Mishing</th>
<th>Deori</th>
<th>Sonowal Kachari</th>
<th>Non Tribal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non Workers</td>
<td>18 (8.8)</td>
<td>28 (19.3)</td>
<td>43 (20.5)</td>
<td>37 (28.5)</td>
</tr>
<tr>
<td>Marginal Worker</td>
<td>160 (78.0)</td>
<td>90 (62.1)</td>
<td>107 (51.0)</td>
<td>85 (65.4)</td>
</tr>
<tr>
<td>Main Workers</td>
<td>27 (13.2)</td>
<td>27 (18.6)</td>
<td>60 (28.6)</td>
<td>8 (6.2)</td>
</tr>
<tr>
<td>Total</td>
<td>205 (100)</td>
<td>145 (100)</td>
<td>210 (100)</td>
<td>130 (100)</td>
</tr>
</tbody>
</table>

(Figures in parenthesis indicate Percentage of respondents)
Source: Primary Field Survey data, 2003

The table reveals that work participation rate of women within Dhemaji district does not differ significantly among different tribal groups and proportion of non workers are comparatively low. However, the non tribal counterpart has shown a lower proportion of main workers and higher percentage of non workers.
Fig- 6.1: FWPR of Respondents of Different Ethnic Groups (in Percentage)

- Mishing
- Deori
- Sonowal Kachari
- Non Tribal

Non Workers: 8.8, 19.3, 20.5, 28.5
Marginal Worker: 78.0, 62.1, 51.0, 65.4
Main Workers: 66.4, 13.2, 18.6, 28.6
The type and extent of participation by farmwomen in farm operations varies from state to state. In Haryana it is 1.45% and Punjab it is 4.28%. In Maharashtra it is 29%, Tamil Nadu 24%, North eastern states 70% and Andhra Pradesh 95% (Jain and Chand 1982)\(^1\). In the tribal economy of Orissa, in shifting cultivation Bogodo women spend 105.4 days per year on agricultural operations compared to men who spends 59 days per year on agricultural work. (Fernandes and Menon, 1987)\(^2\). In the Indian Himalayas, a pair of bullock works for 1,064 hours, a man for 1212 hours and a woman for 3485 hours in a year on a one-hecatare farm (Singh, 1987)\(^3\). In the hill agriculture of Himachal Pradesh women do 37 per cent of sowing work, 59 per cent in intercultural (weeding) 66 per cent of harvesting, 59 per cent of thrashing and 69 per cent of tending farm animal. In terms of over all farm work they contribute 61 per cent of the total labour (Mencher, 1987)\(^4\). In the rice production in the three states of Kerala, Tamil Nadu and West Bengal the contribution of women are neither marginal nor insignificant. Through their work, knowledge and skill both categories of women (Labourer's and land owning) make crucial contribution to the production proceeding of rice as well as household expenditure. They are also aware of technological changes and influence their acceptance or rejection (Saradamonii

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Women's contribution to the household income is immense and besides this in agriculture more than two third input is female (Mencher 1987)2.

The Dhemaji district, occupying the eastern most part of the state falls under the upper Brahmaputra valley agro-climatic zone. Female work participation rate in primary activities are dependant upon various factors including the agricultural production system, local ecosystem and the farming system. Rice, is the main crop of the district, is typically produced in ecosystems like irrigated land; rainfed land and swamps. All these ecosystems have different requirements and they face different constraints (Riveros 1994)3. However, the district is difficult to partition on the basis of its agro-ecological setup. There are limited irrigation facilities in the district covering only 7.53% of the gross cropped area, due to which most of the lands remain fallow during winter season. Moreover, traditional method of cultivation is practiced in most parts of the district. Developments in the field of agriculture, including the use of HYV, fertilizers and mechanization are yet to make impact in the district. Thus in the context of the present study the sampling villages are divided into two agro-ecological units (Unit-I and Unit-II) on the basis of irrigation facility. Villages having irrigation facilities (even partly) are grouped in Unit-I and villages

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without having irrigation facilities are grouped into Unit-II. The data of these two units are used in testing the hypotheses of the present study.

The first hypothesis of the present study states that "Variation in agro-ecological condition determines the extent of variation in female participation in work among the tribes as well as the non-tribal segment of the population." Table 6.1 depicts the FWPR among different ethnic groups residing in the two agro-ecological units of the district. The data is used to test the validity of the first hypothesis using $\chi^2$ test.

### Table 6.2: FWPR of different ethnic groups in two agro-ecological units of Dhemaji District

<table>
<thead>
<tr>
<th>Tribe</th>
<th>Agro-ecological unit</th>
<th>Non Worker</th>
<th>Marginal Worker</th>
<th>Main Worker</th>
<th>Total</th>
<th>$\chi^2$ value at 5% level=5.99</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mishing</td>
<td>Unit-I</td>
<td>9</td>
<td>70</td>
<td>11</td>
<td>90</td>
<td>$\chi^2=0.38^{NS}$</td>
</tr>
<tr>
<td></td>
<td>Unit-II</td>
<td>9</td>
<td>90</td>
<td>16</td>
<td>115</td>
<td></td>
</tr>
<tr>
<td>Deori</td>
<td>Unit-I</td>
<td>12</td>
<td>40</td>
<td>13</td>
<td>65</td>
<td>$\chi^2=0.17^{NS}$</td>
</tr>
<tr>
<td></td>
<td>Unit-II</td>
<td>16</td>
<td>50</td>
<td>14</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>Sonowal Kachari</td>
<td>Unit-I</td>
<td>10</td>
<td>25</td>
<td>10</td>
<td>45</td>
<td>$\chi^2=1.31^{NS}$</td>
</tr>
<tr>
<td></td>
<td>Unit-II</td>
<td>33</td>
<td>82</td>
<td>50</td>
<td>165</td>
<td></td>
</tr>
<tr>
<td>Non Tribal</td>
<td>Unit-I</td>
<td>17</td>
<td>36</td>
<td>2</td>
<td>55</td>
<td>$\chi^2=1.18^{NS}$</td>
</tr>
<tr>
<td></td>
<td>Unit-II</td>
<td>20</td>
<td>49</td>
<td>6</td>
<td>75</td>
<td></td>
</tr>
</tbody>
</table>

Source: Primary field Survey data, 2003
NS: Not significant

As the $\chi^2$ test did not show any significant relationship of FWPR between the two agro-ecological units for all the ethnic groups, hence it becomes evident that the
variation in agro-ecological condition does not determine the extent of variation in female participation in work among the tribes as well as the non-tribal segment of the population.

The second hypothesis which states that “Inter tribal variation in female participation in agriculture will be minimal in similar agro-ecological units” is also tested using the data tabulated in table 6.3 and table 6.4 with $\chi^2$ test.

**Table: 6.3: FWPR in villages having irrigation facility (Unit-I)**

<table>
<thead>
<tr>
<th>Tribe</th>
<th>Non Worker</th>
<th>Marginal worker</th>
<th>Main Worker</th>
<th>Total</th>
<th>$\chi^2$ value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mishing</td>
<td>9</td>
<td>70</td>
<td>11</td>
<td>90</td>
<td></td>
</tr>
<tr>
<td>Deori</td>
<td>12</td>
<td>40</td>
<td>13</td>
<td>65</td>
<td></td>
</tr>
<tr>
<td>Sonowal Kachari</td>
<td>10</td>
<td>25</td>
<td>10</td>
<td>45</td>
<td>19.21*</td>
</tr>
<tr>
<td>Non Tribal</td>
<td>17</td>
<td>36</td>
<td>2</td>
<td>55</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>48</td>
<td>171</td>
<td>36</td>
<td>255</td>
<td></td>
</tr>
</tbody>
</table>

Source: Primary field Survey data, 2003
*: Significant

**Table- 6.4: FWPR in villages not having irrigation facility (Unit-II)**

<table>
<thead>
<tr>
<th>Tribe</th>
<th>Non Worker</th>
<th>Marginal worker</th>
<th>Main Worker</th>
<th>Total</th>
<th>$\chi^2$ value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mishing</td>
<td>9</td>
<td>90</td>
<td>16</td>
<td>115</td>
<td></td>
</tr>
<tr>
<td>Deori</td>
<td>16</td>
<td>50</td>
<td>14</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>Sonowal Kachari</td>
<td>33</td>
<td>82</td>
<td>50</td>
<td>165</td>
<td>26.06*</td>
</tr>
<tr>
<td>Non Tribal</td>
<td>20</td>
<td>49</td>
<td>6</td>
<td>75</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>78</td>
<td>271</td>
<td>86</td>
<td>435</td>
<td></td>
</tr>
</tbody>
</table>

Source: Primary field Survey data, 2003
*: Significant
The $\chi^2$ value for Unit -I and Unit-II reveals significant difference of work participation rate among the different ethnic groups rejecting the null hypothesis indicating that inter tribal variation in female participation in agriculture is not equivalent even in similar agro-ecological units of the district. This may be because of differences of cultural, traditional and historical traditions among different ethnic groups despite the influence of one ethnic group over the other as they used to live in close proximity for decades together. Moreover, as the influence of poverty is an determining factor on FWPR irrespective of ethnicity and as the district is backward in respect of industrialization, communication etc. and as most of the tribal people are dependant on agriculture and allied activities as their sole source of income. Therefore, there are differences in work participation rates of women among the different tribes residing within the same agro-ecological unit.

Some definite patterns in gender division of labour in agriculture sector in the district are observed during the study. However, gender division of labour in agriculture is subject to variation over time and generalization is difficult. The position of women in a society is also a determining factor for FWPR. Such positions are determined by variations in the position of women, by virtue of caste, regional disparity, economic status of the family etc. Moreover, sexual division of labour exists in paid and unpaid work and between them in almost all societies, and the nature of the work done by women differs substantially by place, time, and in some cases, over the life cycle (Tinker, 1990). However, some patterns of gender division

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of labour are observable as cooking, feeding the family, cleaning and washing household clothes and utensils, grinding grain, transplantation, harvesting etc. are more commonly female activities while ploughing, preparation of field, carrying harvested crops home etc. are more commonly male activities. However, increase in the numbers of nuclear type of families has in one hand expedited the concept of duel earner and in the other it gave flexibility to the traditional concept of the gender division of labour.

Dhemaji district has a multifaceted society and customs varies from place to place; but a generalized pattern of gender division of labour is observable among various religious, social, and economic groups. The society is moderately hierarchical and people are moderately ranked relative to others according to their wealth, power and caste. In general women are expected to be chaste and modest and their employment outside the sphere of home and family farmyard is viewed as inappropriate and threat to their chastity and womanly virtue. Women and girls of the economically sound families generally receive a greater educational opportunity but are usually kept at home as a demonstration of the family’s morality.

Most of the ethnic groups residing within the district are living at close proximity to each other and there are cross integration of each others cultures, traditions etc. Moreover, inter-caste, inter-tribe and inter-ethnic marriages also are not uncommon in the district. Hence, the pattern of gender division of labour of one ethnic group has definite influence on the other groups resulting in a generalized trend.
The third hypothesis which states that “Sexual division of labour shall be more prominent between the tribes and the non-tribes” is also rejected since there are very little differences in sexual division of labourers, except fetching of fuel or firewood which are carried out by women in the tribal society and man in non-tribal communities. Thus the sexual divisions between the two groups are not significant within similar agro-ecological units as well as within the district as a whole.

Technological development in the district is at its rudimentary stage. Hence, influences through changes in technology on the division of labour are less felt in the district. However, wherever such development is felt, they are associated with the males, as required training is targeted towards men but women tends to derive benefits from such technology use.

Due to progressive disintegration in joint family structures, changes are also taking place in the level of gender division of labour within the family. Work division and organization by gender within the family is closely related to the size of the family and to the availability and the amount of work needs to be done. The disintegration of the extended family and the transition to the nuclear family often results in a shortage of work within the family due to more involvement of women in all aspects of fieldwork in agriculture. The changes in family structures are accompanied by willingness and capacity on the part of the men to act supportively in works that are previously and exclusively performed by women.

In recent times, major economic and social transformations are occurring in cultural, household formations and patterns of obligations. Women’s earnings form a
major part of the family income especially for those living below the poverty line. Moreover, an increase in women’s income also increases their personal security and hence the security of children in poverty stricken households (Tripathi and Tiwari, 1999). However, even though such women contributes significantly to the household economy, they are traditionally perceived as dependants, which lead to low wages, and most of the strenuous jobs that they do are considered light and unskilled works.

Women’s share in activities related to the animal husbandry sector is scattered across all ethnic groups. Women are experts in taking care of the domesticated animals including breeding, feeding, milking of cattle and buffaloes, pigs, chicken, ducks and goats etc. Women are familiar with the knowledge of the feed value of different fodder species. Women also actively participate and play an important role in running successfully other enterprises like poultry, piggery, goatary, duckery, quail rearing and sericulture. Imparting formal and scientific training on these sectors can greatly improve the economic conditions especially of small, marginal and landless rural households.

Access to resources of many women including energy need is declining, while their income needs are increasing. The focus of the green revolution has been on increasing grain yields by adopting scientific techniques. Introduction of high yielding varieties of rice has increased the rice production in many parts of the

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district. However, women's lack of control over production process has been associated with an increase in the burden of work and increased dependence on wage labour. Agricultural labour is seasonal work with long period of unemployment and under employment during the year. The decline of women cultivators within the district can be attributed to frequent damage to the standing crops by floods, damage of family farm lands due to silting resulting in loss of inadequate growth of productive employment opportunities on family farm leading to withdrawal of women from active cultivation. The increases in the number of agricultural laborers are the greatest indicator of increasing poverty and reduction in the level of employment (Shiva and Dankelman, 1992).

It is observed that only a negligible section of the tribal women are involved in activities other than agriculture and weaving in the district and is comparatively lower than that of females in general population of similar occupations. Sericulture practice is a major source of income for many women of the district. Almost all of the rural households of the district have looms for weaving. Sericulture is recognized as an intensive employment area for women. Women are actively involved in silkworm rearing including their feeding, silk reeling, spinning etc. Sericulture being a small-scale industry, is a source of subsidiary income in many rural households of the district, and is exclusively operated by women.

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Tribal women are working women almost without any exception. Working women in all social groups work harder than men. This is more so for the tribal women. They render help in agricultural activities, cook for the family, look after the children, do the washing etc. Though, traditionally women have played key roles in crop husbandry, animal husbandry; fisheries and post harvest technology, services and public policies for rural areas have often neglects the productive roles of women. Consequently, the development of technologies especially tailored to women-specific occupations and the involvement of women in technology development and transfer has received inadequate attention from both scientific and administrative angles. The economic development will be successful only when the needs of both women and men equally addressed. However, the intervention for development and technology seems to be associated with masculinity, making the linkage between technology and women invisible.