K. S, Srikantan, B K. Narayan and D. Vasadeva Rao

Population and Employment in Area Planning : Female and Child Work Participation

THE ultimate objective of area planning **is** the improvement of the condition* of life and the development of resources, human and material. Toe aspects of the population relating to gainful activity occupy a central place in this. The purpose of this paper is to raise some important issues about gainful employment of women and children in wet and dry cultivation on the basis of empirical data from the areas commanded by Ghataprabha and Malaprabha dams located in northern Karnataka.

Female Work Participation

The first issue to be illustrated empirically is the pattern of female gainful activity in wet and dry cultivation and in various occupations. According to M. N. Srinivas (1977), there is a definite and well-understood division of labour between sexes in rural areas. While transplanting of paddy seedlings and weeding of crops are exclusively women's work, harvesting operations involve a more complicated division of labour. During the lean season, landless men and women work on road and canal repairs and construction activities. Hence the participation of women in productive work should depend, among other things, on the extent of irrigation, the crops grown, and the occupational distribution of the families. Accordingly, we take three types of areas with vary-

ing availability of irrigated water and broad occupational categories for a comparative assessment of differential work participation of women.

Schooling and Work Participation of Children

A second important issue from the point of view of human resources development is the schooling and work participation of children. In some ways the two activities could be competitive. If seasonal child labour is needed for agriculture, formal education of boys may be interrupted during busy seasons. This may lead to higher drop-out rates and greater illiteracy among working boys. Schooling of girls is governed more intricately by such factors as caste, religion, family occupation, productive and domestic roles for girls, marriage and kinship patterns. Accessibility of schools may not be the only or even an important factor in determining literacy rates. So, we empirically relate the literacy and education of boys and girls to their participation in gainful work and examine whether the two activities are indeed competitive.

Data and Sources

The Command Areas. The protective irrigation projects on the Ghataprabha and Malaprabha rivers initiated a new phase of economic development, laying the foundations for a stable socio-economic order in a drought-prone and back^ ward region. The two command areas are to implement soon a master-plan for integrated area development based on an expansion of civil works and an extension of distribution channels from the dams. The 541 and 436 settlements, which have benefitted from Ghataprabha and Malaprabha respectively have an area of 3,225 and 4,675 km^2, with a population of 511,000 and 570,000.

Bench-mark. To provide a base for evaluation of the development projects, a bench-mark survey was conducted in a sample of 62 villages in the two command areas. These villages were classified into 3 groups :

A = irrigated settlements

B = settlements to be irrigated; and

C = control settlements (unirrigated)

19,36, and 7 villages were chosen from *A, Band* C categories by simple random sampling after stratification by the two command areas and by talukas. With-

in each selected village, a number of households were chosen again by simple random selection, proportional to the total number, after stratification by cultivator and non-cultivator households. The number of cultivator households selected was 4 times the number of non-cultivator households. \Data were obtained from the district census handbooks and from the detailed household survey on socio-economic background, consumer expenditure, employment, production and income, savings and investment.

16 interviewers were selected and trained for canvassing detailed questionnaires in 62 villages in two waves during February-March, 1975 and August-September, 1975 under rigorous supervision and spot-checking. Data were collected from 717 cultivator and 185 non-cultivator households. The data were scrutinized, checked and coded at our Institute. Some tabulations were done using a computer system but the demographic data were tabulated manually. Based on these material and the Census data, a plan for the integrated development of Malaprabha and Ghataprabha command areas has been prepared and submitted to the Government of Karnataka.

Deflations

Ages are in completed years as reported by the respondent, usually the head of the household. Some attempt was made to check the year of birth with a calendar of important local events.

An earner is one who obtains remuneration in cash or kind for productive work in agriculture,, household industries, trades, and services. The reference period for this activity is the preceding agricultural year.

Literates are those who are regarded by the respondent as able to read and write.

The household consists of all members related by blood or marriage and staying together and eating from a common kitchen for at least six months prior to the survey.

Earners and Female Work Participation

For the 3 study groups, Table 1 shows the percentage earners in broad age-groups by sex. As may be expected,; the male percentage is invariably larger than the female percentage for the corresponding age-group in all the 3 study

groups. Also the percentage of earners in age-group 0-14 among boys and among girls is not insubstantial. Child labour has a significant role to play in all the three groups.

TABLE 1—PERCENTAGE OF EARNERS IN EACH BROAD AGE-GROUP BY SEX BY STUDY GROUP

Broad Age-group	*Study group**						*All groups*	
	A		*B*		*C*			
	Male	*Female*	*Male*	*Female*	*Male*	*Female*	*Male*	*Female*
0—14	15.3	11.7	9.5	5.0	13.9	9.8	11.3	7.4
15—55	87.4	65.5	86.6	32.3	87.5	43.7	87.0	43.7
56 and over	80.4	12.7	89.2	13.0	61.5	20.8	83.5	13.8
15 and over	86.8	59.5	86.9	29.5	84.2	40.7	86.6	39.7

*Study group *A* = Irrigated
B = To be irrigated
C = Control (not irrigated)

The percentage earners among males aged 15-55 is about the same in the 3 study groups. Thus, the development of protective irrigation does not appear to have substantially increased the percentage of males usually regarded as earners mainly for two reasons. The work participation rate among men in working ages is already at a high level so that further increases are difficult. Second, the definition of earner relates to the usual status and does not reflect changes in seasonal employment and unemployment. With protective irrigation and assured water supply in the command areas the year round, we expect seasonal inactivity to decline even if there is no increase in the percentage earners.

By contrast female work participation in working ages is much higher in *A* compared to *B* and *C*. This suggests that protective irrigation opens up prospects for cultivation all the year round and perhaps creates the need for larger labour inputs seasonally. Depending on the crop raised, there is a socially sanctioned and operationally efficient division of labour between men and women which leads to greater utilization of women in wet cultivation. Labour scarcity and high wage rates during the harvesting season may also lead to greater utilization of women in wet farming.

IB the- oldest age-group, 56 and over, the participation rate of men in the work force remains high but that of women declines. Group € has the least male participation rate and the largest female participation rate. The reasons for the substantial participation rate among the oldest group of women in *C* are complex but perhaps the larger percentage of non-agricultural labour in C may be a contributory factor.

Occupational Distribution of Earners

We compare the distribution of earners by household occupation in the 3 study groups using 7 major occupational classes relevant to this analysis* Table 2 shows that while in *A,* there is a larger percentage of farmers than in *B* or C, the highest percentage of non-agricultural labour is in C. The percentage of female earners in each occupation is given for *A,B* and *C* in Table 3. In study group *A,* there are 34 female earners per 100 earners of both sexes and the corresponding figures for *B* and *C* are 23 and 30 respectively.

To what extent these differences are due to the differential occupational structures of *A, B* and *C* and to what extent they are due to the differential percentages, among the study groups, of women employed in each occupation is ascertained by standardizing for the occupation structure and by standardizing for the percentage of females engaged in each occupation. The relevant comparisons are shown below :

Percentage Female to Total Earners	*A*	*B*	*d*
(a) Actual	34.0	23.4	29.8
(b) Standardized to the overall occupational distribution	33.2	23.7	27.7
(c) Standardized to the overall percentage female earners in each occupation	28.3	27.4	**29.6**
(d) Due to occupational structure, (a) - *(b)* 00.8		-0.3	2.1
Due to percentage or female earners by occupation, *(a)* — (c)	5,7	**—4.0**	0.2.

TABLE 2—DISTRIBUTION OF EARNERS BY FAMILY OCCUPATION IN EACH STUDY GROUP*

Household occupation	Study group*						All groups	
	A		B		C			
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Farmer	608	68.0	709	53.7	152	55.9	1,469	59.1
Agricultural labour	164	18.3	199	15.1	45	16.5	408	16.4
Service	20	2.2	61	4.6	5	1.8	86	3.5
Artisan	15	1.7	114	8.6	17	6.3	146	5.9
Non-agricultural labour	60	6.7	145	11.0	45	16.5	250	10.1
Business and Trade	13	1.5	40	3.0	0	0.0	53	2.1
Others (cattle rearing etc.)	14	1.6	52	3.9	8	2.9	74	3.0
All occupations	894	100.0	1,320	100.0	272	100.0	2,486	100.0

*Study group : A = Irrigated
B = to be irrigated
C = control (not irrigated).

TABLE 3—PERCENTAGE OF FEMALE EARNERS IN EACH FAMILY OCCUPATION STUDY GROUP*

Household occupation	Study group*			Age groups	Number of earners
	A	B	C		
Farmer	31.1	14.7	27.0	22.7	1,469
Agricultural labour	51.8	51.8	37.8	50.2	408
Service	0.0	3.3	0.0	2.3	86
Artisan	40.0	28.9	11.8	28.1	146
Non-Agricultural labour	35.0	39.3	44.4	39.2	250
Business and Trade	15.4	12.5	—	13.2	53
Other (cattle rearing etc.)	7.1	9.6	12.5	9.5	74
All occupations	34.0	23.4	29.8	27.9	2,486

*Study group : A = irrigated
B = to be irrigated
C = control (not irrigated).

When the occupational structure is standardized, the percentage of female earners is held constant for each occupation at the level of, say, group *A*. Hence the difference between the actual percentage (a) and the occupation-standardized percentage *(b)* can be ascribed to the effect of differences in the occupational structure of *A* compared to the overall occupational structure. This is not large for *A* nor for *B* and only moderate for *C*. When the percentage of female earners in *A* is standardized by occupation, then the occupational-distribution is held constant. Hence the difference (a)—(c) is due to differences in the percentage of female earners in each occupation in *A* compared to the corresponding overall percentage. This is large for *A* and positive, while for *B*, it is large and negative.

The standardized rates given above clearly show that the large difference in the percentage of female to total earners, between study group *A* on the one hand and *B* and C on the other, cannot be accounted for in terms of differences an occupational structure. These inter-group differences arise mainly from differences in the percentage of female earners among *A*, *B* and C in each occupation. For instance, among farming households, 31 percent in *A*, 15 percent-in *B* and 27 percent in *C* are women. Among non-agricultural labourers, women constitute 35 percent in *A* and 39 percent in *B* and 44 percent in *C*. These differentials lend support to our earlier finding that productive roles for women and their participation as cultivators, agricultural labourers and non-agricultural labourers would depend on the extent of wet and dry cultivation.

Caste Composition of Earners

Another factor which may influence female work participation is the caste composition and work participation of women in each caste. The caste composition in the study groups *A*, *B* and *C* of the heads of households, of male earners and of female earners is shown in Table 4. There is not much difference in caste composition in these three characteristics. The main feature is that while in *A* and *B* Lingayats form above 40 per cent, in *C* they are about 30 per cent. Caste Hindus are about 60 per cent in *C* and around 40 per cent in *A* and *B*. To examine whether these differences in composition account for the differences in female work participation, the percentage women to total earners in 4 major, occupational categories combined—agriculture, agricultural labour, non-agricultural labour and artisans—has been calculated for each major caste/religion in each of the study groups and is given in Table 5.

TABLE 4—CASTE DISTRIBUTION OF HEADS OF SAMPLE HOUSEHOLDS AND MALE AND FEMALE EARNERS IN EACH STUDY GROUP*

Caste/religion	Study group*						All groups	
	A		B		C			
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Heads of households								
Lingayat	125	45.8	229	43.4	28	27.7	382	42.4
Other Caste Hindu	116	42.5	214	40.5	63	62.4	393	43.6
Scheduled Caste	20	7.3	53	10.0	7	6.9	80	8.9
Muslim	12	4.4	32	6.1	3	3.0	47	5.2
All Castes	273	100.0	528	100.0	101	100.0	902	100.0
Male earners								
Lingayat	357	42.4	767	44.8	98	31.1	1222	42.6
Other Caste Hindu	372	44.2	685	40.0	177	56.2	1234	43.0
Scheduled Caste	68	8.1	165	9.6	24	7.6	257	9.0
Muslim	45	5.3	95	5.5	16	5.1	156	5.4
All Castes	842	100.0	1712	100.0	315	100.0	2869	100.0
Female earners								
Lingayat	324	44.1	668	43.7	91	29.1	1083	42.0
Other Caste Hindu	318	44.3	631	41.2	183	58.5	1132	43.9
Scheduled Caste	62	8.4	141	9.2	21	6.7	224	8.7
Muslim	31	4.2	90	5.9	18	5.8	139	5.4
All Castes	735	100.0	1530	100.0	313	100.0	3578	100.0

*Study group : *A* = irrigated
B = to be irrigated
C = control (not irrigated)

As was done for the occupational distribution, the percentages of women earners in *A*, *B* and *C* were standardized (i) to the caste distribution of earners in

TABLE 5—WOMEN EARNERS AND PERCENTAGE OF EARNERS IN BOTH SEXES BY CASTE BY STUDY GROUP[1] IN THE 4 MAJOR OCCUPATIONS OF AGRICULTURE, AGRICULTURAL LABOUR, NON-AGRICULTURE LABOUR AND ARTISANS

Caste/religion	Study Group[1]						All groups	
	A		B		C			
	No. of earners	% Women	No. of earners	% Women	No. of earners	% Women	No. of earners	% Women
Lingayat	386	30.1	541	23.2	78	30.8	1,005	25.8
Other caste Hindu	360	40.3	400	34.5	144	35.4	904	36.9
Scheduled Caste	72	37.5	114	26.3	17	23.5	203	30.0
Muslim	36	19.4	55	18.2	8	30.8	99	25.8
All Castes	854	34.5	1,110	26.8	247	32.4	2,211	30.4

Study group[1]: *A* = irrigated
B = to be irrigated
C = control (not irrigated)

all the three study groups together, and (ii) to the percentage of women in each caste in all three study groups together. The results are shown below :

Percentage Women Earners	A	B	C
Actual (*a*)	34.5	26.8	32.4
Standardized to overall caste composition (*b*)	34.5	27.9	31.2
Standardized to overall rates for each caste (*c*)	30.5	29.9	32.3
Deviation due to composition (*a*)—(*b*)	0.0	—1.1	1.2
Deviation due to differential rates (*a*)—(*c*)	4.0	—3.1	0.1

It is found that the deviations due to differences in caste compositions of *A, B* and *C* are small and the deviations due to differences in female participation rates, among the three study groups, in each caste are much larger. This suggests that caste is not an important factor accounting for the differences in the percentage women earners in *A, B* and C.

Differentials in per Capita Incomes

Work participation of women may also depend on per capita income levels. The per capita incomes of study groups *A, B* and *C* have been estimated at Rs. 682, 569 and 414 at 1976 prices respectively. Thus *C* represents the poorest villages in which most agriculture is dry cultivation and women have to supplement their family incomes by engaging in non-agricultural labour. This accounts both for the highest percentage of non-agricultural labour in study group *C* and the highest percentage of female to total earners in this occupation.

Literacy Differentials

The percentages literate in broad age-groups by sex and by the 3 study groups given in Table 6 show the differentials in literacy among the various groups. Looking first at all ages 5 and over, males consistently have higher literacy than females. The study group *A* has the highest, *B* intermediate and *C* the lowest literacy levels. The ratio of female to male literacy rates is again high for *A*, followed by *B* and *C* in that order.

Comparing the younger generation (5-19 and 10-19) with the older generation (ages 20 and over), for males there does not appear to be any significant increase in literacy in recent years. By contrast, for females in study group *B* there is a large increase in the percentage literate for the younger compared to the older generation. This is also seen from the ratio of female to male literacy rates. Thus the overall picture is one of highest literacy levels in *A* with little recent change, intermediate levels of literacy in *B* with increasing literacy of girls in recent years and low levels of literacy in *C* with no recent change.

We have tried to account for these literacy differentials by examining various factors associated with literacy and education. Table 7 shows the accessibility to schools in villages of study groups *A, B* and *C*. Neither in terms of schools per village nor in terms of population per school is there much difference among the three groups. Hence, though accessibility of schools may be a necessary

TABLE 6—PERCENTAGE LITERATE IN BROAD AGE-GROUPS, BY SEX BY STUDY GROUP[1]

Broad Age-group	*Study group*[1]									*All groups*		
	A			*B*			*C*					
	Male	*Female*	*Ratio*[2]	*Male*	*Female*	*Ratio*[2]	*Male*	*Female*	*Ratio*[2]	*Male*	*Female*	*Ratio*[2]
5—19	63.2	41.7	66.0	35.4	33.8	61.0	31.9	7.0	21.9	54.7	31.9	58.3
10—19	69.5	47.3	68.1	62.4	35.8	57.4	31.1	3.9	12.5	60.6	34.3	56.6
20 and over	70.1	45.6	65.0	63.4	17.5	27.6	37.1	8.4	22.6	62.9	24.9	39.6
5 and over	67.9	44.2	65.1	60.2	23.9	39.7	35.0	7.7	22.0	59.8	27.6	46.2

[1]Study group : *A* = irrigated
B = to be irrigated
C = control (not irrigated)

[2]Ratio : 100 × (% literate male)/(% literate female)

TABLE 7—PRIMARY SCHOOLS[1] PER VILLAGE AND POPULATION PER SCHOOL IN STUDY GROUPS A, B and C

Study group	*Schools per village*	*Population in'000 per school*
A irrigated	1.4	1.9
B to be irrigated	1.6	1.4
C control (not irrigated)	1.4	1.3

[1]On the assumption that middle and high-schools have primary classes also.

factor, it is not sufficient to explain the differences in literacy levels of *A*, *B* and *C*.

If the value literacy and education are perceived differently by different castes, caste composition could have an important influence on literacy levels. Table 10 shows the percentage literacy by sex by 4 major caste/religion groups—Lingayats, other caste Hindus, scheduled castes and Muslims. While there are some variations in percentage literacy among the castes within each study group, there are much larger variations for the same caste among *A*, *B* and *C*. In fact the actual percentage for the study groups, the percentage standardized on the corresponding sex distribution in the overall population and standardized on the corresponding sex percentage literate in the overall population are as follows :

Percentage literate (all castes)	*A*		*B*		*C*	
	M	*F*	*M*	*F*	*M*	*F*
Actual (*a*)	63.1	40.0	53.6	21.0	33.7	7.0
Standardized on the overall distribution of same sex (*b*)	63.0	40.0	53.4	21.0	36.0	8.6
Standardized on the percentage literate in same sex in the overall population (*c*)	54.2	24.9	54.4	24.7	52.3	24.1
Deviation due to composition by caste (*a*)—(*b*)	0.1	0.0	0.2	0.0	—2.7	—1.6
Deviation due to differential in percentages compared to overall percentage in each caste (*a*)—(*c*)	8.9	15.1	—0.8	—3.7	—19.0	—15.5

The deviations given above clearly show that differential caste composition has little effect on the percentage literate and that the major difference is still the differentials among *A*, *B* and *C*. Thus caste in this context does not appear to be an important determinant of literacy level and one has to look for other explanations—such as relative poverty of the people in the 3 study groups and the need to send children to work instead of to school.

TABLE 8—PERCENTAGE LITERATE IN EACH SEX BY CASTE BY STUDY GROUP[1]

Caste/religion	Study group[1]						All groups	
	A		*B*		*C*			
	Male	*Female*	*Male*	*Female*	*Male*	*Female*	*Male*	*Female*
Lingayat	69.7	41.4	65.6	25.3	50.0	16.5	65.5	29.4
Other caste Hindus	59.4	40.3	47.0	20.4	26.6	3.8	47.8	23.3
Scheduled Caste	54.4	30.6	21.8	7.1	25.0	0.0	30.7	12.9
Muslim	53.3	41.9	60.0	14.4	18.8	0.0	53.8	18.7
All castes	63.1	40.0	53.6	21.0	33.3	7.0	54.2	24.7

Study group[1]: *A* = irrigated
B = to be irrigated
C = control (not irrigated)

Literacy among Young Earners and Dependents

To examine whether there is any conflict between work and schooling of children, the percentage literate by broad age-groups by sex was compared between earners and dependents in the three study groups (Table 9). For the younger generation males (5-19 and 10-19 age groups), these percentages are much higher for dependents than for earners in all three study groups. This suggests that early work participation perhaps prevents (regular) school attendence and leads to more illiteracy. For girls similar differences are observed in *B* and *C*, where female literacy levels are lower. Again compared to the older generation, the younger generation has less literacy among earners and more literacy among dependents. This again indicates the conflict between work participation and schooling, so that among dependent youths there is more literacy than among adults, whereas among earners the relationship is reversed.

TABLE 9—FOR EARNERS AND DEPENDENTS, PERCENTAGE LITERATE IN BROAD AGE-GROUPS, BY SEX BY STUDY GROUP[1]

Broad age-group	Study group[1] A		B		C		All groups	
	Male	Female	Male	Female	Male	Female	Male	Female
Earners								
5—19	59.4	50.0	37.7	11.7	19.0	0.0	42.3	27.3
10—19	59.0	50.8	38.6	11.3	19.5	0.0	42.9	27.9
20 and over	72.3	52.4	63.0	13.9	37.8	10.8	63.6	30.4
5 +	70.1	51.9	58.9	13.5	33.5	8.0	59.9	29.4
Dependents								
5—19	65.8	38.1	61.7	37.3	39.2	8.4	60.2	32.8
10—19	85.1	44.4	78.3	40.8	45.5	5.5	76.4	36.6
20 and above	50.1	35.8	67.9	19.1	33.3	6.7	56.4	21.2
5 and over	61.7	36.9	62.6	27.0	37.8	7.6	59.5	26.7

Study group[1]: A = irrigated
B = to be irrigated
C = control (not irrigated)

The relationship between education and work participation among youths has also been examined along similar lines. Table 10 shows the percentages literate, and with primary and above, and middle school and above levels of schooling in broad age-groups by sex and by dependents, earners and both combined. Looking first at both dependents and earners together, it is seen that there has been a recent increase in literacy and education among girls in ages 5-19 and 10-19 compared to women 20 and over. Male literacy and education rates are consistently above female rates for corresponding age group*. Among dependents, the literacy and education rates are higher for the younger compared to the older generation and the relationship is reversed for earners. Finally in the two younger age groups, literacy and education rates are correspondingly larger for dependents than for earners. All these differentials tend to confirm the conflicting demands made on children by work participation and schooling, both on boys and girls.

TABLE 10—PERCENTAGE LITERATE, PRIMARY AND SECONDARY LEVELS OF SCHOOLING IN BROAD AGE GROUPS BY SEX, BY DEPENDENTS, EARNERS AND BOTH

Broad Age-group	Literate		Primary and over		Middle school and over	
	Male	Female	Male	Female	Male	Female
			Dependents			
5—19	60.2	33.1	50.1	23.5	13.9	3.5
10—19	76.4	37.1	70.6	28.3	28.2	6.5
20 and over	56.4	21.2	42.9	12.1	26.9	2.0
5 and over	59.5	26.8	48.7	17.5	16.3	2.7
			Earners			
5—19	42.3	27.3	33.8	10.7	10.2	0.7
10—19	42.9	27.9	34.7	10.0	10.5	0.7
20 and over	63.6	30.4	51.4	12 0	16.8	1.8
5 and over	59.9	29.8	48.3	11.7	15.6	1.5
			Dependents and Earners			
5—19	54.7	32.1	45.0	21.3	12.8	3.0
10—19	60.6	34.7	53.7	23.6	19.9	5.0
20 and over	62.9	24.9	50.6	12.1	17.8	1.9
5 and over	59.8	27.7	48.5	15.7	15.9	2.4

Summary and Discussion

Two major findings emerge from this study of a command area. Female work participation is linked to a large degree with the extent of irrigation and the norms regulating the functional and sex division of labour and only to a much lesser degree to occupational distribution and caste composition. Schooling and work participation make conflicting demands on children so that child earners are less literate and have less education than children who are dependents. These findings are tentative and need replication in other areas with augmentation of the sample size. Before we discuss the policy implications, some of the limitations of the data have to be pointed out.

Since the data obtained in a bench-mark survey of the command area are utilised, the concepts and definitions are not tailor-made for our present analysis. For example, an earner is defined in terms of his/her activity for the whole

agricultural year and does not, therefore, reveal the seasonal employment pattern of men and women.

The data come form the Malaprabha-Ghataprabha command area. As the project is a protective irrigation scheme to insure against drought and not for increasing the cropping intensity, similar studies should be conducted in other types of irrigation projects before generalizing the conclusions. Also the study group of irrigated settlements (A) used in this analysis is not a traditionally irrigated area but has been brought under irrigation within the last ten years or. so. Hence we cannot expect settled arrangements for agricultural operations such as division of labour by sex to have fully emerged even in *A* type settlements.

We next turn to some policy implications of these findings. Female participation in gainful activity is now receiving much attention in developing countries. The Advisory Committee on Women's Studies felt that in health, education and employment immediate action is essential to counteract the national neglect of women. India is mostly rural and largely agricultural. As underemployment and disguised unemployment are rampant among cultivators and agricultural labourers, it is not an easy task to create opportunities for employment of women in these occupations. In this context, it may be pointed out that mechanization of agriculture not only leads to the displacement of men by machines but also, to a far greater extent, the replacement of women by machines and mechanically skilled men who can operate them.

Traditionally the conflict in work participation between the sexes has been resolved by assigning specific work roles to men, women and children which they are able to discharge efficiently. Such rules depend on the availability of irrigation, the crops grown, and subsidiary activities such as cattle, sheep and poultry rearing. In the light of empirical knowledge of such patterns of division of labour, development projects have to be carefully assessed and selected for their employment potential of women also, if this is indeed an objective of development. Such microlevel planning calls for detailed studies of the social division of labour and their implications for female employment in various programmes of rural development.

As for utilization of women in non-agricultural activities in rural areas, such programmes have to be dovetailed to seasons of inactivity, for instance, construction and public works programmes should be carefully timed to fall in the lean

season and not be circumscribed by the availability of funds and rush of expenditure at the end of the budgetting year.

One of the important social programmes of the government is the improvement of literacy and the education of children in rural areas. Conflicting demands are made on children, especially among the rural poor, between work participation and schooling. Accessibility to school, though a necessary condition, may not by itself increase school enrolment. Children are often drafted to supplement the earnings of the poor. Boys may help in agricultural activities, in taking care of animals and in supplementing the family labour in peak season. Girls can undertake specific, though restricted, activities and can take care of the children and household, releasing women for full-time daily labour. Such practices are bound to continue so long as the family income is inadequate to feed the members. Ambitious programmes for expansion of schools and legislation on compulsory education is bound to fail if the necessary social conditions and the demand for education of children are not created in rural areas.

In the present circumstances, the drop-out rates for rural schools are bound to be high. Useful vocational content has to be increased to make education relevant to the rural context. The school year is to be adjusted according to the needs of rural agriculture for supplementing labour at the peak season. Better income distribution is also essential if the children of the poor are to attend school. Finally, the low value set by parents on the education of girls has to be drastically altered if more girls are to be enrolled in schools,

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