CHAPTER II

Review of Literature

Before initiating any study, a critical and thorough insight of the studies already conducted relating to the topic of the problem is imperative for conceptual clarity and methodological improvement in the research work to be conducted. In this backdrop, the studies already conducted related to the topic of present study have been reviewed and presented in this chapter.

May and Ruth (1953) initiated a study to determine the time used in household activities by Wisconsin female farm homemakers. Their findings were based on a sample of 85 farm families, and the respondents kept a record of the use of their time for one week. They were given instructions as how to keep records. It was found that homemakers spent on an average 52 hours and 46 minutes on household activities per week. In addition, 8 hours were devoted to farm or business, etc., making a total of 60 hours and 46 minutes.

Kanker (1957) conducted a study on influence differentiation in family decision-making. The decision situation for each pair of twenty-five couples was to assume that they had received a gift of $300 and they were to decide for themselves as how this money should be spent. The findings revealed that most husbands and wives (56 per cent of each) had a medium degree of influence. Husbands in comparison to their wives had a high degree of influence. In case of husbands there was positive relationship between their contributions of ideas and suggestions and influence exercised by them during the family decision-making at that time. For wives there was a significant relationship between the influence and performance of action in the social and emotional areas while making the decision.

Wilkening (1959) studied the joint decision-making in the farm families as a function of status and role. The findings of the study revealed that the role of husbands and wives in the families with heads of households under 45 years of age was more likely to carry out various decision-making practices than those who were above this age. It was also found that as the level of education increased in case of husbands and the wives, decision-making practices also increased.
Chaudhari and Sharma (1961), in a study in Khanjawala block of Delhi territory, classified farm women’s activities as routine and seasonal activities. The routine activities included manuring, weeding, hoeing, harvesting, carting, thrashing and sugarcane production. Women participated in these activities with men-folk. As compared to joint families, the females in the nuclear families made maximum contribution of work days to the agricultural production activities. The study further revealed that proportion of the female labour in the agriculture was invariably greater than that of males.

Radhukar and Junghare (1962) in their study not only highlighted the role of wives in decision-making in the farm and home affairs, but maintained that there were joint decisions with regard to decision-making relating to home and farm concerns. They stated that females living in rural areas fully participated in decision making and were often deciders in the matters related to family as well as farming.

Mukherji (1963) studied the daily activities of eighteen families who were asked to keep a record of their one day’s activities. The results showed that fathers participated only in marketing work of house. Girls helped their mothers in daily routine activities such as cleaning of the house, washing of clothes and cooking meals, etc. In families having full time servants, the mothers and the daughters did not actually participate in cooking, sweeping and other domestic work. In such cases, the mothers mostly supervised the work.

Schoemaker (1963) studied the financial decision-making by 100 farm families in Michigan. The findings of the study revealed that the decision-making practices were influenced in particular by age and education. Families with heads of households under 45 years of age were more likely to carry out various decision-making practices than those who were above this age. It was also found that with the increase in the education of husbands and wives, their role in the decision-making also increased.

Arya (1964) in a study of 114 farm families in Khanjlawala block of Delhi showed that most of the male respondents consulted their family members before taking decisions on any aspect of farm operations. It was observed that women played a dominant role in the decision-making especially in the matters of the home-management, agricultural marketing and sale and purchase of land.
Kahlon and Brar (1967), in a study on the role of farmer’s wife in decision-making, revealed that out of 34 specified activities of decision-making, there were joint decisions in 41 per cent cases. In 94 per cent cases, housewives reported that farm and household purchasing decisions were determined more by the perceived needs of farm and household than by culturally determined pattern. These needs varied with the level of economic resources of the family which, in turn, were associated with farm and degree of commercialization.

Mulay and Lokhande (1967) found that rural women in Delhi territory constituted indispensable labour force required on the farm throughout the year and shared responsibility in carrying out most of the farm operations. Women in nuclear families were consulted to a greater extent for decisions with regard to cropping pattern, adoption of improved agricultural practices, agricultural marketing and financing as compared to those in joint families.

Haque (1968) reported that 78.66 per cent of the rural school-going girls worked on farms, 72.66 per cent of them cut fodder in the fields, brought it to the farmstead and also chaffed it. 53.33 per cent of the girls did milking of the buffaloes and 57.33 per cent of them participated in feeding of cattle.

Manning (1968) reported that in different seasons throughout the year, female members in rural families spent 52.9 hours per week on household activities. The meal preparation took 10.2 hours, sewing and mending 3.1 hours, care of children 6.8 hours care of adults 0.04 hours per week. Financial planning and record keeping took 0.6 hours and shopping took 4.6 hours per week and there was very little help available in dish-washing, meal preparation and regular care of the house from the members of the family. The size of family and the liking of task also affected the time spent in homemaking activities by the home makers.

Singh (1968) studied the participation of rural women in agricultural operations in N.E.S. block of Jabalpur. The findings of the study revealed that a comparatively large proportion of women participated in seed storage, winnowing, harvesting and care of animals. It was also observed that women belonging to the middle age group, having frequent urban contracts and with formal education, coming from lower castes and possessing small land holdings participated in agricultural operations in larger
proportions than others. Social participation did not affect participation in agricultural operations. Higher participation in agricultural operations was positively associated with the attitude of women towards improved seeds, fertilizers and seed storage.

Wilkening and Bhardwaj (1968) observed that economic and social status had little association with decision involvement; only income and education level of spouses appeared to affect wife’s involvement in decisions pertaining to the farm activities.

Huddar (1971) revealed that the need of the clothing was decided jointly by husband and homemaker, but views of the grown up children were also taken into consideration while deciding the need and actual purchasing of clothes.

Puri (1971) delineated areas of decision-making by farm women. She conducted a survey of one hundred homemakers and found that there were fourteen main areas of decision-making. These areas in order of preference were marriage of children, payment of dowry, education of children, selection of occupation for children, expenditure pattern, construction of the house, farm related tasks, taking and giving loans, health and hygiene practices, family planning, home improvement, household tasks, litigation and securing for future. The respondents attached great importance to the first five areas of decision-making. In the remaining nine areas they always consulted their men-folk.

Devadas, Muthu and Thangamani (1972) in a study on role of farm women in agricultural operations, reported that the women participated in sowing, harvesting, thrashing, transplanting seedlings, storing the grains, winnowing, preparing seeds-beds, picking the cotton pods, shelling the pods, hand thrashing, scaring the birds, caring of cattle, milking, application of fertilizer and transmitting water.

Gill (1972) while studying the role of farmer’s wives in the context of technological breakthrough in agriculture, reported the actual role preference of the farmer’s wife. The percentage of decisions taken by the wife independently of the husband rose from 0 per cent in 1966 to 17 per cent in 1970. The percentage of decisions taken by husband alone decreased from 59 per cent in 1966 to 32 per cent in 1970.

Muthu and Thomas (1972) studied the participation of adolescent girls in homemaking activities in two colleges of Coimbatore. Findings of the study revealed that there was comparatively high participation by the girls in social activities, care of clothes, serving food, cleaning utensils and preparation of food. Among various food preparation
activities, cutting of vegetables and cleaning or washing of food were the two activities in which the girls participated to the extent of 36 and 49 per cent respectively. Grinding was the activity in which majority (44 per cent) of the girls never took part. Greater number of girls participated in activities pertaining to care of clothes. Gardening and miscellaneous activities like care of pets, poultry, cattle, fetching and heating of water were done by less than 20 per cent of the respondents.

Puri (1972) in his study of 100 married couples living in rural areas and involved in farming revealed that main activities done by the housewives were storing of grains, seeds and food preservation. Other tasks such as harvesting, thrashing, winnowing, hand weeding and tasks related to animal care were predominantly housewives centered.

Rajagopal and Jagteshwari (1972) reported that majority of the decisions were made by the husband in the rural households jointly with wife or alone. In 56 per cent of the urban and 65 per cent of rural households, the home-makers made either individual or joint decisions. Individual decisions, taken by the home-makers in both rural and urban areas were mainly with regard to food and clothing and the joint decisions were confined to financial matters only.

Sandhu (1972) conducted a study on the utilization of the time spent in performing household activities by homemakers in the rural areas. It was found that age, education of the homemaker, occupation, size of the family, type of the family, all had a significant effect on the time spent by the homemakers in performing household activities. The homemaker’s attitude towards a particular activity was associated with the time spent on it. On an average, all homemakers spent 67.4 hours in 4 days on all household activities out of which major part of time was spent on food preparation. Leisure type averaged about 18 hours in 4 days. Aged homemakers liked religious activities whereas young homemakers liked entertaining guests, attending social gatherings, clubs, meetings, etc.

Bains (1973) made an assessment of economic contribution made by the homemakers to the development of family in Ludhiana city for urban homemakers and in village Khera of Hoshiarpur district for rural homemakers. The average economic contribution of urban homemakers was more than that of rural homemakers. Similarly, in case of employed urban homemakers, the average economic contribution was 4 ½ times
more than that of the unemployed urban homemakers. The average economic contribution of the rural homemakers was also found to be significantly different for jatt sikh, schedule caste and backward class homemakers.

Chaudhry (1973) in a study on Khanjhawala block of Delhi showed that rural school-going girls participated in the areas of land preparation, fertilizer and manure application, irrigation, watching of standing crops in the field, winnowing and storing – hay. It was also reported that higher proportion of them were involved in jobs like washing and cleaning cattle-sheds.

Puri (1974) reported that milking, preparing milk products such as curd and ghee were wife centered chores in rural households. Other tasks which were of service type and labour-oriented were also assigned to wives. Moreover, decisions regarding the number of the cattle to be kept and selling of milk and milk products were made mostly by wives (91 and 89 per cent, respectively). Other tasks such as making cow-dung cakes, cleaning cattle-sheds and bathing cattle were mostly wife centered chores.

Bhasin and Malik (1975), after conducting a case study in villages around Udaipur, reported that owing to the technological changes, the ratio of female to male workers has been declining. The introductions of modern methods of cultivation have resulted in a gradual displacement of women since all the new methods are generally taught to men only.

Chakravorty (1975) conducted an intensive study of a few families in Rohtak district of Haryana during the period of wheat harvest. It was reported that a housewife has to perform more or less the same daily chores. She got up between 4:30 a.m. to 5:00 a.m., grinded wheat, churned milk, cleaned the cattle shed, milked the buffaloes/cows, fed the animals, collected dung, prepared dung cakes, cleaned kitchen and utensils, served breakfast, made the dough for chapattis and sabzi or dal for lunch. Either the women or grown up children in the family (unless going to school) took the cattle to Gora- the common pasture ground in the village. After that, at about 8’o clock she went to the field to harvest wheat, collected dried stalks of crops for fuel, cut grass or berseem (fodder), returned home at noon with load of fodder or fuel on her head. She served lunch to family members, cleaned utensils, bought chaffed dry grass for the cattle, chaffed the green fodder, went to the batora (a structure to store dry cow-dung cakes) to arrange and

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store the dry cow-dung cakes for the year and again went to the fields at about 3:30 p.m. to bring fuel or fodder load on her head. She bought the cattle home, tied them, gave feed, cleaned the house, went to bring water, cooked the dinner, milked the buffaloes/cows, kept the milk on slow fire for simmering, kept the cattle feed for the next day to be cooked, served food to family members, took her own meals, sets the milk for curd. She retired to bed between 9:30 p.m. and 10:30 p.m. The schedule described above may vary accordingly to the seasons, but there was no significant difference in the pattern of work and the amount and intensity of labour she had to put in.

Chatterjee (1975) conducted a survey in Purnea district of Bihar during 1971-72. He found that (i) in the operations like sowing, irrigation, transplantation, etc., male labourers were generally employed; (ii) the harvesting and post-harvesting operations offered the greatest employment opportunities to all the casual male, female and child labourers.

Galraj (1975) revealed that under conditions very different from India, farmers with small holdings in Poland combined two jobs of running their farm and working full time in industry or trade in neighboring towns. These farmers preferred to commute daily but live in the villages with two incomes. Their lives were described as ‘never ending round’, with women becoming runners of farm by taking over the traditional jobs done by men, in addition to theirs. The men spent long days in the city. On holidays, they attended to various jobs on farm, such as taking care of the farm machinery or negotiating a loan. The lot of the women reflected “primitive and un-riding manual work”.

Mazumdar (1975) found that among cultivators, the artisans and those performing menial services in the village communities, the women played a distinctive accepted role in both production and marketing. Markets were mostly local or within accessible limits. Even now in areas where the traditional norms still prevailed, the marketing of vegetables, fish, and processed foodstuffs of the traditional type was done by women. Over the years, there has been decline in women’s economic participation rates; the degree of decline has been considerably less in agriculture than in other sectors of economy. For instance, the total number of women in agriculture in 1911 was 30,898 thousand and in 1971, it was 25060 thousand.
Pandey (1975) collected data regarding the female earnings as percentage of the male earnings and it was found that in India overall earnings of females as per cent of males in India were 68.6 whereas in Punjab these were 70.9. The earnings of females to males were highest in Bihar state i.e. 84.4 and lowest in Kerala i.e. 54.8.

Swaminathan (1975) revealed that women not only attended to various field operations like transplanting of rice, weeding crops and scaring birds but had also been practically in complete charge of many harvest and post-harvest operations like reaping, winnowing, thrashing and storage. Much of the work in plantation crops like plucking tea was done by women. The tending of farm animals and saving farmyard refuse for use either as fuel or manure had all been predominantly women’s occupation. In most parts of Himalayas, women occupied even more important place in agriculture since they attained to most of the operations connected with crop production.

Arora (1976) reported that in the hills of Kumaon, the women folk carried out more of agricultural operations than men folk. The lethargic men force associated themselves with agricultural mainly at the time of ploughing and marketing operations. All other operation were being carried out by the women.

Kaur (1976) studied the pattern of decision-making by the rural families. She revealed that in economic field maximum decision-making score was obtained by the husband followed by father-in-law and homemaker. In social decisions, most influential decisions were made by father-in-law followed by husband and homemaker. The role of daughter-in-law and sister-in-law was much less than other members of the family.

Aggarwal (1977) while highlighting the role of women in changing society indicated that women in India like their counterparts elsewhere in the world have long been recognized as playing an active role in providing for the material needs for themselves and their children. Since agriculture was the main occupation and therefore, the main source of income for majority of the persons, this has frequently been the most important area in which women have worked to fulfill their responsibilities.

Sunita (1977) conducted a study on the decision-making patterns of rural families with special reference to the role of women in selected agricultural practices. The findings indicated that in all the agricultural practices the maximum percentages of decisions were made by the husband. The wife’s position was second to husband. Even if
the husbands played an important role, wives had an important place for activities which they themselves performed.

U.S. Department of labour (1977) concluded that economic necessities were the major reason for female labour participation. Although for same this necessity was based on efforts to obtain a level of living which matched their standard.

Grewal (1980) conducted a comparative study on utilization of time in household activities by rural and urban homemakers in Ludhiana district. She found that whether the women employed/non employed belonged to urban area or rural area, were found to be the prime performer of the household chores. On an average, all families in rural areas spent 12.97 hours per day on all household work, of these 11.56 hours (89.16 per cent) were contributed by homemakers and the rest 1.41 hours (10.84 per cent) were devoted by the helpers. In urban areas, average time spent on household activities was 11.85 hours per day. Wives made the largest contribution of 8.67 hours (73.16 per cent) to it where as the remaining 3.18 hours (26.84 per cent) were contributed by other family members.

Yadav and Yadav (1981) made an attempt to evaluate the effect of changes in the cropping pattern on female work participation using inter-temporal approach. A comparison was made in the cropping pattern, cropping intensity, female participation in agricultural operations and seasonal variation in labour use at two points of time, viz., 1966-67 and 1980-81 representing pre-green revolution and green revolution period respectively. The empirical results indicated that the cropping pattern intensity increased by 70 per cent and farm labour requirements more than doubled. During the period that female farm labour participation increased from 43.98 to 52.36 per cent on the sample farms. Their participation was maximum on small farms being 59.78 per cent and it was 46.45 on large farms. They also participated in a variety of farm operations such as land preparation (excluding ploughing), transplanting, harvesting, mechanical threshing, winnowing and primary processing of agricultural commodities. Due to their enhanced participation in work on the farms, seasonal variation of agricultural labour had declined.

Dhillon (1981) while studying the changing role of rural women, found that women’s work in the household registered little change. In some activities, her role was changing from ‘doing to supervising’. Women’s contribution to agricultural was
observed to be declining, as they were unable to cope up with the technological advancements. However, in spite of this, she continued doing certain monotonous chores of farm work which were usually associated with harvesting and processing of food-grains. Separating the seeds from the cotton was one of the activities, which had been considerably affected over time with the affect of mechanization. Activities like grain sowing, vegetable sowing, and rice transplanting, threshing of wheat, paddy, etc. and carrying irrigation waters were on the whole being performed by men-folk and hired male labour, except for a few exceptions. Weeding was mainly performed by men-folk. The findings on the whole indicated that the effect of mechanization in agriculture was adversely affecting women’s contribution to agriculture.

Jindal (1981) concluded that economic necessity was the most important reason for female labour participation, whereas 40 per cent rural and 32.50 per cent urban respondents worked because they had ample time for outside works; 38 per cent rural and 30 per cent urban worked to pass time and 30 per cent rural and 22.50 per cent urban women worked in order to participate in social welfare and 20 per cent rural and 55 per cent urban respondents worked only because of job availability. Majority of urban respondents thought that work participation was the best way to utilize one’s training, talents and creativity; 42.50 per cent participated because of the desire to enjoy better standards of living and an equal percentage because of interest in work. In case of rural respondents, 18 per cent reported that it was the best way to utilize one’s training, talents and creativity, while 16 per cent participated because of desire to enjoy better standard of living and an equal per cent participated due to interest. Only a small proportion in both areas reported such reasons as prestige and status as compared with house work, desire to have independent income, desire to put the education to wider use, relief from family tensions and conflicts and from boredom and monotony, and help in maintaining individuality and freedom to enjoy life to support the family.

Kaur (1981) conducted a study in five villages of Ludhiana district and concluded that the maximum participated activities by farm women were picking the pods and unsheathing the maize cobs. In case of farm activities performed at home, the maximum participated activities were related to grain storage and care of animals. The participation
in keeping account was the lowest and supervision of farm women in the field activities was very low.

Verma and Malik (1984) in their study on contribution of farm women in farm operation in Western U.P., Meerut, Hisar, Ludhiana, Jaipur and Delhi reported that ladies spent 2.08 hours in agricultural activities, 3.16 hours for animal husbandry practices besides 5.03 hours for domestic work.

Azad, et al (1985) found that among various farm operations, transplanting of nursery was the most important in which women participated extensively. The other important farm operations were weeding and harvesting. The women were also engaged in the maintenance of their milch cattle and in the procurement of fodder and grains for them.

Dangat and Yadav (1985) found that the contribution of female labour to the total human labour constituted 34 per cent. The proportion was higher on the small farms (44 per cent). It was observed that the proportion of hired female labour used on the farm to the total hired human labour was higher (38 per cent) as compared to that of family female human labour (32 per cent). This may be due to the lower wage rates for the females than for the males and their relatively higher use on labour farms. The analysis of female labour for various farm operations indicated that the operations like stubble collection and weeding were carried out exclusively by the females. The participation of female labour was also large in operation like minnowing. The female labour used for these operations constituted 31 per cent of the total female labour utilization. The female labour used for interculturing accounted for 27 per cent of the total female labour use. Thus, some what light but equally important operations in crop production were performed by the female labour which accounted for one-third of the total human labour used in crop production on the farm. This was done in addition to the whole of the household and other domestic activities.

Dhongade et al (1985) concluded that the size of family and the number of women workers were large in the jowar region as compared to cotton and sugarcane regions. Women participated in farm activities to the extent of 77, 62 and 37 per cent of the families in jowar, cotton and sugarcane regions respectively. The proportion of families where women labour worked on the farm regularly showed a declining trend.
from small to large sized holdings in all the three crop regions relatively high proportion of families where women worked on the farm was in the jowar region. The average employment for the women during the year ranged between 3,019 hours to 3,296 hours in three regions. The breakup of total work hours into different categories of work showed that the ‘domestic work’ was the main category of employment in all the regions and in all the size groups of holdings. The second important source of employment of family women labour was work for crop production in the farms. The other categories in order are jowar and cotton region were ‘work on other’s farm’, ‘tending of cattle’ and ‘work on own farm other than crop production’. In the sugarcane region, women did not work on other’s farms. The participation of women in the farm work in different size classes of holdings showed that in jowar and cotton regions, the participation in the ‘work done on own farm for crop production’ increased with the increase in the size of the holdings. However, in the sugarcane region, the participation of women for ‘work in other’s farm’ showed a declining trend with the increase in size-group of holdings. The participation of women in ‘tending of cattle’ was more or less equal in all the three regions as well as in the three size group of holdings. Thus, the study showed that the participation of family women labour in farm activities is related to economic development of the area and the farmers. The participation was relatively low in the developed sugarcane area as also on the larger holdings which are financially better.

Gadre and Mahalle (1985) examined the extent of female farm family workers under changing agriculture in Vidarbha. The study revealed that between 1956-57 and 1980-81, the number of female farm family workers per hectare increased by 20 per cent whereas the number of male family workers decreased by 22 per cent, thereby increasing the proportion of female farm workers from 36 to 46 per cent.

Ghosh (1985) studied the nature and pattern of activities performed by women in the rural areas with a view to indicate the economic significance of these activities and the degree to which they contributed to the household economy and the society. The study was based on 1971 and 1981 census data and information collected from one village in the district of Birbhum, in West Bengal. He revealed that there has been a significant increase in the number of women workers (excluding marginal workers) between 1971 and 1981. There number increased by 65 per cent as against an increase of
21.5 per cent among males. A large increase in women work force is observed in the case of two occupational groups, viz., household industry and ‘cultivation’ which accounted for 186 and 102 per cent respectively. The sheer necessity of sustenance has pushed a good number of rural women to wage paid works and field agriculture, who otherwise remained confined to household work alone. Although the pattern of women employment in the rural areas was very much related to land or income and caste hierarchy, it has undergone significant change in the recent period. Women of upper caste households owing a smaller amount of land were found to be engaged in paid activities and field agriculture outside their home, although these were considered of lower social status. An overwhelming majority of women among scheduled caste households in the village remained engaged in multiple activities, such as day labour, field agriculture, animal care, collection of fuel, fodder, leafy vegetables and fish, etc., besides performing domestic work. This swelling in the supply of women worker does not indicate any improvement of their economic condition. Women of the poor household were desperately trying to find some means of supporting their households even at the cost of losing their social status.

Law (1985) examined the differentiation of rural women. Far from being a homogeneous group, there were greater distinctions between women than between men of different classes in the rural areas. Development, which bought gains to the household often had an adverse effect on women in the household. Rural development strategies like the green revolution, which introduced high yielding strains, fertilizers, weedicides etc. displaced women worker. Agricultural modernisation had increased class and sex polarization and wage differentiation between men and women, women getting half the pay as compared to men. On the other hand, technological change had a negligible impact on women’s household work. Men had appropriated the knowledge and the skills of the new agrarian technology by virtue of their greater mobility. This left women to do non-technological, low wage subsistence tasks. The result was an increase in the ‘invisibility’ of women as producers in the economy and loss of traditional economic and decision-making roles. Several international labour offices (ILO) studies destroyed the myth that scheduled rural women did not work. They possessed traditional technical and production
skills, produced beedies, lace and processed agricultural commodities, hence contributing substantially to the family income and the national product.

Munjal et al (1985) concluded that the official records indicated lower rate of female labour participation which reflected their low contribution to the economic activity in the rural areas. In their study an attempt was made to assess the actual time spent in performing different activities in home, farm and dairy sector; their economic contribution in household by performing different activities and impact of agricultural season and farm size on their work participation was also examined. The findings were based on intensive sample of 30 households selected appropriately from the operational research project (ORP) area of national dairy research institute, Karnal. A farm woman on an average worked for 13.62 hours and 12.19 hours daily during peak and slack agricultural seasons respectively. In economic terms, her contribution was Rs.14.85 and Rs.11.15 per day during the two seasons respectively. As the farm size increased work participation of farm women decreased in the farm sector and increased in the home and dairy sector. Variability in the time spent in farm activities was as high as 229.07 percent and the lowest for the home sector, on small and marginal farms farm women had to perform the farm operations in the peak season besides the home and dairy activities which were their traditional roles. The study suggested that appropriate training should be given to farm women according to their needs and there should be adequate understanding and evaluation of women’s economic contribution in the farm households.

Panghal and Ram (1985) examined the nature and extent of employment of women labour on farms in different agro-climatic zones of Haryana state. The analysis was based on the data collected under the project “comprehensive scheme to study the cost of cultivation of principal crops in India-Haryana”, during 1983-84 covering a sample of 200 farmers representing small, medium and large farms. It varied from 20.67 percent on small farms to 40.91 per cent on large farms in zone I and from 24.24 to 30.70 per cent in zone II. However, in the zone III, it was almost the same on all sizes of farms. The increasing trend of women labour participation with the increase in the size of farm was due to the fact that larger the size of farm more is the amount of hired women labour. The highest participation of women labour was found in performing the harvesting, picking operations on all sizes of farms in zone I and II. The employment of women
labour was the highest in cotton followed by paddy and wheat. In cotton crop the medium farms absorbed the maximum women labour (876 man hours per hectare) followed by large farms (792 man hours) and the lowest on small farms (751 man hours). The study showed that the per household employment of women labour in supportive work was the highest in zone I and increased with the size of holdings. Women labour employment was found to be the lowest in zone III due to social traditions of the area. However, in zone II and III on small and large farms the participation of women labour in supportive work was less as compared to medium farms.

Saik (1985) conducted a study in ten villages of Johrat and Sibsagar district, Assam and found that work participation rate of females depended on cropping pattern, crop intensity, economic compulsions to engage in farm activities. Females worked as casual labours on the farm for specific farm operations. The average female work participation rate was 54.24 per cent but it was higher on marginal farms in all village groups. The female work participation rate and volume of employment were higher in paddy dominated villages than in village growing wheat and sugarcane. Transplanting and harvesting of paddy were done exclusively by female workers. Per hectare use of labour decreased and per farm use of with the increase of farm size. On marginal and small farms the availability of labour per unit of operated area was much higher than on medium farms.

Sirohi (1985) concluded that the maximum number of women participated in the operations like storage, harvesting, threshing and sowing. Number of rural women participating in any of the farm practices was more in the nuclear families than in the joint families. Maximum number of participants in storage, threshing and harvesting belonged to 5-8 size of family.

Sisodia (1985) conducted a study on the participation of rural women in allied activities with respect to animal based, preparatory and supportive activities. As regards the animal based activities, women performed the activities like animal grazing, bringing fodder from the field/forest, feeding and cleaning of animals, removing of cow dung from the cattle shed, sale of milk (retail), ghee-making, cow dung cake making, etc. The supportive activities performed by the women included carrying seed and fertilizer to the field, helping in construction or repairing of field channel, Kothla making (storage). In
addition to this, women were also engaged in processing and marketing activities, viz. cleaning of foodgrains, weighing and bagging, loading into carts, marketing, etc.

Devi (1986) while studying the time utilization pattern of rural farm women belonging to low, medium and high economic categories from Atkur village in Krishana district in Andhra Pradesh, reported that on an average women spent 40-41 per cent of their time on household activities, 15.83 per cent on agricultural activities and 43.75 per cent on sleeping, resting, social and leisure activities.

Gupta and Singh (1986) examined the participation of women in different farm and non-farming activities in Haryana. They found that 86 per cent of the total adult female members of the sample farms were participating in own farm activities. A study further revealed that in addition to crop raising operations, a woman devoted about eleven hours a day on domestic and animal rearing activities.

Kaur (1986) while analyzing the time spent in the household activities, farm housewives in winter and summer season reported that various household activities performed by farm housewives were meal preparation, meal service, dish washing, house cleaning and clothing care. Average time spent by them for these activities were 6.23 and 6.26 hours in meal service, 1.85 and 1.62 hours in dish washing in winter and summer seasons respectively. Similarly house cleaning and cleaning clothing care, on average, took 1.34 to 1.64 hours and 1.29 to 1.88 hours, respectively, in both the seasons.

Singh et al (1986) studied the composition of family female labour force available for farm, livestock and home activities in Haryana. They revealed that female labour constituted higher percentage (80 per cent) of the total daily work than male labour for farm, animal and household activities.

Gandhi et al (1987) in a study conducted in Haryana reported that women participated actively in all the home and farm activities inspite of their major role as housewives. Activities such as weeding, hoeing, etc. were mainly performed by females alone in Jind and Hisar whereas in Ambala males alone did this operation. Regarding harvesting and post-harvesting, thrashing, cleaning, winnowing and preparation for market, joint involvement of both male and female and females alone was at its peak in Hisar and Jind district.
Roy and Saini (1987) conducted a study on time-task analysis of farming and non-farming home-makers during ‘Rabi’ season in Ludhiana and revealed that the farming home-makers spent average time of 7.13 hours for kitchen work which was 4.46 hours more than the average time spent by non-farming home-makers. Further, during ‘Rabi’ season the average time spent in performing kitchen work was 9.08 and 10.18 hours, respectively during sowing and harvesting periods for farming home-makers while they spent only 3.43 hours on it during slack period.

Gill (1988) reported that although participation of women in Punjab in agricultural activities was less as compared to other states, still women participated in all activities such as harvesting of crops, picking of cotton, plucking of vegetables. They performed these activities either with family members or with hired help. He further reported that besides these activities Punjab women also participated in livestock management with respect to feeding, sale of milk, etc.

Kaur and Punia (1988) examined the participation of women in home, dairy and farm activities. The study revealed that all respondents were engaged in household chores spending 8-10 hours with maximum time devoted to cooking. It was further noted that women were major performers of tasks related to dairy sector and maximum time was devoted in preparing and giving feed and fodder to animals and minimum for selling of milk. Farm women used to spend 3-4 hours in taking care of animals in a day. Regarding farm related activities, maximum time was devoted in harvesting followed by weeding, thrashing and post-harvest activities.

Pandey et al (1988) in a study conducted in Hisar district of Haryana showed that a great majority of the employed female labour was the family labour. Amongst different operations, the most common operations performed by them were hoeing, harvesting, picking, threshing and winnowing. The rural women worked between 9 and 14 hours per day both in farm and household activities.

Saxena and Bhatnagar (1988) while studying the time utilization pattern of tribal and non-tribal women in Rajasthan reported that maximum time consuming activity was food preparation followed by cleaning and maintenance of house, clothing care, etc. and the minimum time was spent in child care activities.
Sen (1988) estimated the hours of time spent in different categories of work on rural class structure in a rural area of Hoshangabad district of Madhya Pradesh. He observed that different types of work performed by women were related to household, animal husbandry and farm activities. Regarding hours of work, 57.76 per cent hours were spent in household work, 16.77 in animal husbandry, 10-11 per cent in weeding and harvesting. In the land-lord class, women’s working hours were divided between household (79 per cent) and animal husbandry (21 per cent) whereas women of middle peasant class, in addition to household work (80 per cent), spent about 20 per cent of their working hours in animal husbandry, weeding and harvesting.

Sharma et al (1988) conducted a study in hills of Uttar Pradesh and revealed that in crop production; women had a main role to play as most of the operations were exclusively done by them, and female workers generally devoted their time in weeding, hoeing, transplanting and harvesting. However, men associated themselves with agriculture mainly at the time of ploughing and marketing of the produce only.

Singh and Sharma (1988) reported that participation of women in agriculture and household activities was greater for women in hills than in plains. Women performed those activities which required lower level of skills, were repetitive like transplanting of rice, harvesting, threshing. The operation, which needed mechanized skills, were done by males while the operations which needed manual labour were done by females.

Natraju and Lovely (1989) concluded that the farm women have participated in some of the crucial operations such as sowing/transplanting (86 per cent), weeding (86 per cent), storage of grains (78 per cent), land preparation (72 per cent), cleaning seeds for sowing (70 per cent), gap filling (68 per cent), manure and fertilizer application (68 per cent) and harvesting (64 per cent), threshing and winnowing (62 per cent) and rats and rodents control practices (58 per cent) aspects particularly in paddy cultivation.

Nikhade and Nimje (1989) revealed that 70 per cent of farm women stated lack of scientific knowledge of farm operations. Though distance of farms could not be minimized as 61.66 per cent farm women mentioned this as a constraint. Social bondage (23.23 per cent), social prestige (13.33 per cent) were the other major constraints.
Sandhu (1989) revealed that most educated married women seek employment to supplement family income and to attain economic independence. They also found that economic necessity was the main factor motivating women to take up employment.

Kaur (1990) conducted a study on 160 women from five villages of Ludhiana and concluded that majority of the working women were belonging to nuclear types of family with large family size having low annual income. As the age increased, participation in agriculture as well as allied activities decreased. As the annual income of the family increased, the participation in some agricultural activities, viz. winnowing, stripping, decreased but increased in some allied activities like cleaning, repair of cattle shed, etc.

Muthuraja (1990) revealed that rural women’s contribution was generally found more in agricultural sector. It was found that as the land holding of the farmers’ increased, the work participation of females in the family decreased.

Sanwan et al (1990) concluded that the majority of the farm women participated in farm operations like storage of produce, uprooting of seedlings, transplanting, weeding, hoeing, picking, threshing, winnowing and cleaning. Participation of farm women decreased with increase in farm size. The study also revealed that there was distinct sphere of participation between males and females in farm and dairy sectors. The men were the planners and women implemented the activity.

Sultana (1990) in the study, participation, empowerment and variation in development for rural Bangladesh women, found that women’s participation in paid work was not sufficient to increase women’s autonomy and voice in the family and the village. On the other hand, women’s group formation, regular savings and income, new knowledge, consciousness-raising and group mobilization together created an alternative to women’s traditional conditions and thus contributed relatively higher status for women in the family and in the village.

Sudahrani et al (1991) revealed that different agricultural operations in which women participated were weeding, harvesting, transplanting, nursery raising and fertilizer application in paddy based cropping system, whereas in cotton based cropping system the operations performed by them were picking, sowing and fertilizer application.

Tantray (1991) reported that women participated in all farm activities except ploughing of fields and marketing of produce, irrigation and application of pesticides and
fungicides. The participation and time spent on Kharif activities was more than those of Rabi activities by women. Highest participation was for harvesting and picking (100 per cent) and manuring of fields (98.34 per cent and 40.00 per cent) both in Kharif and Rabi seasons respectively.

Bhople and Patki (1992) concluded that farm women labourers were involved in all types of farm activities but their maximum contribution was in presowing, sowing, manuring, harvesting, grain storage and marketing operations. The role performance was found to be minimum in respect to land preparation and plant protection.

Jain and Verma (1992) reported that women shouldered almost entire responsibility of household activities and child rearing and also made a substantial contribution in farming. Inspite of all these, women were found to spend significantly more hours ( than men ) in animal husbandry operations such as cleaning of cattle shed, preparation of cow dung cakes, ghee making, etc. which clearly pointed to the enormity of work load being carried out by women in the farming community.

Sharma (1992) concluded that in Madhya Pradesh the farm women participated in activities like seed storage, winnowing, care of animals, crop harvesting, crop weeding, compost making and sowing while there was less participation in manure application and use of implements operations.

Kumari and Ratnakar (1993) found that majority of the women taking up self employment had higher status, education and medium extension contact, high risk orientations, medium achievement orientation and high management orientation.

Samarasinghe (1993) reported that economic independence for women, a key bases of individual empowerment required bringing together two basic set of dynamics into simultaneous play that were access to resources and control of one’s economy.

Singhal and Srinivasan (1993) revealed that in most of the rural households of Haryana, women performed all the activities concerning livestock, such as cutting of green fodder, feeding and watering of animals, milking, cleaning of cattle shed. Women received very little help for these activities from their family members; thus on the whole, livestock was found to be women’s domain.

Batish (1994) reported that significant variations in time spent by farmwomen among three selected agro-climatic regions existed for most of the activities. Age factor
was found to be negatively related with all household activities but positively related with preparation of feed and milking of animals. Family size was found to be positively related with food preparation and service, dish-washing and care of clothes.

Kaushik et al (1994) reported that training courses were necessary to develop entrepreneurship among rural women and encourage them to take up income generating activities. There was need that government programs be made effective to organize training for rural women to make them self reliant.

Khare (1994) analyzed that due to economic independence women had gained some power. Social structure was changing rapidly and women had become more differentiated among themselves than before.

Kurata (1994) conducted a study on self-employment program exploring the concept of women empowerment. The data was collected from a self employment creation program for women. He concluded that empowerment of women centered on four dimensions: economic, social, psychological and political. The data revealed that empowerment was a process which started from individual awareness, which grew into action and broadened to the collective level.

Pattanaik (1994) concluded that farm women are more involved in harvesting and storage of grains than in other agricultural activities such as fertilizers and pesticide application and crop decision making. They were found to be lacking in scientific knowledge about storage and processing and there is thus a need to intensify training on post-harvest technology for women.

Joshi (1996) revealed that Mahila Yojana was an effort to mobilize women and to indicate their problems and find solutions. It was the way to women’s self-reliance and economic independence which could help in the empowerment of women.

Singh et al (1996) concluded that participation of women in post-harvest operations was higher as compared to their participation in pre-harvest operations. In ploughing, there was minimum participation i.e. 4.3 per cent, the percentage increased to a maximum of 42.3 in pre-harvest operations. More than 89.0 per cent respondents were involved in various post-harvest operations. 82.7 per cent participated actually in storage of foodgrains. Carrying the produce from field to home, harvesting, threshing, winnowing were the activities where nearly 60 per cent women were actually engaged.
Batish and Naurial (1997) revealed that women had engaged themselves in different activities such as stitching, embroidery, shawl making and various food processing activities. These women on an average earned Rs. 400/- monthly only.

Chandra (1997) stated that empowerment meant the manifestation of redistribution of power that challenged patriarchal ideology and the male dominance. It was a process that enabled women to gain access to and control of, material as well as informational resources.

Mishra et al (1997) found that the tribal Kharwar women actively participated in all the agricultural activities except ploughing, starting from sowing of seeds to harvesting of crops. Major portion of these activities were performed by females. During peak season, women were engaged over for up to 12 hours a day in farm activities continuously. So, women actively participated in all agricultural activities as well as livestock management and they dominated their male counterparts.

Singla (1997) revealed that respondents faced problems regarding lack of funds for purchase of modern equipments for the enterprises, shortage of training agencies who could impart technical ‘know-how’ and ‘do-how’ short duration of training, lack of financing agencies, shortage of skilled labour, inadequate counseling agencies, lack of co-operative societies for marketing and supply of inputs.

Raju (1998) studied the socio-economic condition of women involved in lace making and reasons for choosing lace making an occupation. It was found that majority of the respondent’s educational level was below primary school. The study further revealed that the educated lace making women were earning more income as compared to illiterate women. It may be due to their levels of education, which enable them to earn money by learning new techniques and designs in lace making.

Rana et al (1998) concluded that women belonging to landless, small and medium land holding categories were actively involved in agricultural activities like weeding/interculture (59.40 per cent), harvesting (72.60 per cent) and post-harvest activities (57.00 per cent). The participation of women belonging to large land holdings did not exceed 25.00 per cent in such activities.
Sahay (1998) stated that the empowerment process was continuing development involving many changes whereby an individual or group was able to strengthen and exercise the ability to act so as to gain greater control over life.

Alagumani (1999) made an attempt to analyze the women’s role in household decision on consumption, production and investment and identify the potentiality of women to become entrepreneurs in Madurai district of Tamil Nadu. The study was based on data collected, using a pre-tested questionnaire, from a random sample of 1,500 female housewives selected from 15 villages in Madurai East, Periyakulam and Thirumanglam blocks representing canal irrigated, well irrigated and rain fed agricultural situations of the district respectively. The study revealed that rural women were involved in the extent of about 73 per cent with regard to decisions concerning household consumption. The extent of participation varied from 76 per cent in Maurai East, 70 per cent in Periyakulam to about 73 per cent in Thirumanglam. The mean score for involvement of rural women in production decisions was 55.74 per cent, indicating that half of the women folk did not involve themselves in the process. In the canal irrigated area of Madura East, the score was 60 and it was the least in Thirumangalam with a score value of 52.80 (rain fed area) and in Periyakulam it was 54.30, partly due to male domination in production decisions and lack of interest on the part of rural women.

The study revealed poor involvement of rural women on investment decision-making with a mean score value of only 38.70 per cent. However, women with the score values above mean value in the class intervals of 41-50 and above, constituting 49.5, women with the score values above mean value in the class intervals of 41-50 and above, constituting 49.57 cent of all women who were not currently working, might be considered to have entrepreneurial potential and they could be motivated and assisted for undertaking entrepreneurial activities.

Chandravati, Rao and Raju (1999) in a study conducted to assess the impact of ANTWA (Andhra Pradesh Training of Women in Agriculture) programme on crop productivity, farm incomes, labour employment and productivity of farm women and to identify the constraints in the implementation of the project and problems faced by the trainee farm women found that the ANTWA training was successful in increasing initiation of women in doing farm activities by themselves and brought a clear change in
the involvement of more and more women trainees in farm activities. The total female family labour use had increased after training while the hired labour and male labour work days decreased. The family female labour work days increased by 7-14 per cent in different crops. The per hectare productivity of rice increased by 7.51 quintals, of sugarcane by 60.46 quintals, of groundnuts by 1.17 quintals and of sesame by 0.47 quintals. The increase in net income per hectare ranged between Rs.1,027 and Rs.6,537 in the above crops.

The standard normal deviate test (Z test) indicated significant and positive impact of ANTWA programme on gross returns, working expenses, women employment-days and number of farm activities in which women farmers participated before and after training. The total income from all the crops increased from Rs.18,235/- to Rs.30,359/- per hectare. The regression analysis revealed that working expenses and involvement in farm activities by women were found to be significantly influencing gross return. The constraints by the trainees were shelter and transport problems during training, poor resource base of the farmers, physical hardship to take up certain farm works and insufficient knowledge about plant protection chemicals and crop varieties. The study suggested the need for conducting more demonstration on farm holdings, involvement of more women farm extension workers, developing improved technology for reducing hardships faced by women in farm activities, conducting need-based training programme of women farmers; and provision of credit facilities for small scale and cottage industry. There should be close follow-up action after imparting training in different farm activities.

Hirway and Roy (1999) observed that the contribution of rural women, in terms of time and efforts was not low or less than that of men in any way. However, this was largely unpaid, home based and therefore not visible. This contribution was neither counted nor considered as an input while formulating policies and programmes for (rural) women. The constraints put by this large chunk of unpaid work of rural women on their development opportunities were neither understood nor changes restricting the scope of development of rural women. Also, it was not that efforts were not made by the central and state governments for improving the position of rural women. In fact, a large number of programmes in the areas of self employment, welfare and security and even
empowerment of women have been designed and implemented in the country. Somehow, these have not clicked in the sense that these have not brought about any radical changes in the conditions of rural women. One major lesson that one can learn from the long history of programmes was that the programme approach will not work. Even when programmes are well intentioned and well designed, and sometimes well implemented also, they looked at the problems of women in a piecemeal manner. What was needed was a gender-centered development approach that kept gender equity at the center of the development process and not at the margin to be addressed by ad hoc piecemeal programmes. That is, the development strategy should address the exclusion and marginalization of rural women while working for their higher incomes and higher welfare. Several theoretical postulations already existed in this sphere and it should not be difficult to adopt one for our country. However, this called for political and economic commitment on the part of the policymakers. Unless that happened, the tinkering with isolated programmes would not be of much use.

Kishore, Gupta, Yadav and Singh (1999) found that the Role of rural women in decision-making and its extent depended on various factors. Respondents belonging to middle age (36-45) and upper middle age (Above 45) groups participated more in decision-making process in different areas of agriculture and their level of participation was also high (about 18-27 per cent) as compared to younger age groups (about 7-9 per cent). The low level of women participation in farm decision-making decreased with increase in age group, where as it showed an increasing trend with increase in the age groups in case of medium and high level of participation. Education was found to be an important variable influencing involvement of women in farm decision-making. Only 11 per cent of women who were illiterate belonged to the category of high level of participation where as this percentage increased to 15.38 - 21.43 per cent and 30 for primary, middle and above middle level of education of the respondents respectively. It was due to their having more knowledge and experience about improved farm practices in case of educated respondents. The level of participation of women in farm decision making was higher in nuclear families (16.30 per cent) as compared to the intermediate and joint families (10 per cent), because in joint families other adult family members were available for consultation by the farmers while in nuclear families, the wife was the
only member available for consultation. The level of participation of women of lower caste 3.70 per cent and medium caste 13.40 per cent was lower than that of upper caste 22.45 per cent.

Regarding the size of land holding, it was found that women of medium size of land holdings (1-2 ha) reported high level of participation (34.38 per cent) followed by those of large size of holdings and below 1 hectare constituting 21 & 5.43 per cent of total respondents respectively. None of the landless women were having high level of participation, whereas 33.33 per cent & 67.67 per cent of them were in category of medium & low level of participation respectively. These landless respondents undertook farming on leased-in land. Lower level of participation of women in large size-group of land holdings compared to medium size of holdings was due to their lesser participation in on-farm activities and to their limited role in taking farm decisions also. It was found that respondents having high participation were the highest in medium socio-economic status group (23.53 per cent), followed by higher socio-economic status groups (17.94 per cent). None of the lower socio-economic status group reported women being involved in high level of participation. Thus it may be concluded that level of participation of women in decision-making was influenced by age, level of education, joint or nuclear family, caste, land holdings and socio-economic status.

Narsimhan (1999) emphasizing the need for psychological empowerment of women concluded that awareness, creation, information sharing, motivation and backing up with economic assistance and inputs bring multidimensional transformation which economic assistance alone could not bring.

Saikia (1999) studied the role of women in agriculture including animal husbandry, sericulture and other allied activities and involvement of farm women in the decision-making process, based on analysis of data collected from a sample of 138 farm households randomly selected from three villages belonging to different blocks of Jorhat district of Assam. The data pertained to the year 1994-95. He found that cropping patterns directly affected the employment of females in agriculture. Under mono cropping of winter rice, the female labour was employed for 48.52 days (labour day = 8 hours) in a year, on an average, which increased to 58.63 days under autumn rice-winter rice, to 64.90 days under autumn rice-winter rice-pulse/oil seeds and to 79.92 days under
winter-rice-pulse/oil seed/vegetables-sugarcane. Females continued to carry on specific farm activities of transplanting, harvesting and post-harvest activities and their involvement in other operations was less. Seasonal variations of employment were higher in case of females than males. Sericulture was an important allied activity in some households while handloom weaving was the only household industry pursued by most of the females. On an average, female were employed for 222.61 days in a year, of which 38 per cent was crop production, 7.5 per cent on food processing, 15.2 per cent on handloom weaving while 39.3 per cent was on animal activities.

Under-utilization of female labour existed in all size-groups of farm and it was higher in marginal and small size-groups. There was much scope for increasing gainful employment opportunities for female through development of the farming sector, allied agricultural activities, rural based industries etc. the development of infrastructure in rural areas is the immediate need along with provisions of training facilities for rural females. Socio-economic constraints hindering effective participation of females in agriculture and rural development works need to be removed through rural-based awareness programmes by the government and NGOs.

Females played an important role in the decision-making for management of farms and households. In male headed households, 15 to 34 per cent of the females played major roles in decision-making where their decisions were accepted in regard to farm production activities, 33 to 47 per cent of them played an equal role along with the males and 18 to 52 per cent of them had only minor role. The proportion of females playing major or equal role was the highest in the selection of crop variety, while in financial matters, the involvement of females was relatively less. In female headed households, females had mostly major/equal role in taking decisions relating to production activities, financial matters and household activities.

Sharma, Bala and Sharma (1999) studied the magnitude of female labour participation in agricultural and livestock enterprises and to estimate the contribution of female labour to farm income. The study was based on data collected from a sample of 120 households proportionally drawn from two blocks, namely, Nichar and Kalpa in the tribal district of Kinnaur of Himachal Pradesh. The data pertained to the agricultural year 1995-96. Cobb-Douglas production function was used to study the resource elasticities
and Euler’s theorem was applied to estimate their income. There was only one cropping season in the area which grew food crops such as maize, barley, ogla-phaphra (pseudo cereals), rajmash and potato and the cash crops of Kalazir and Seffron-medicinal crops. The main cereal crops, maize and barley accounted for a very small proportion of total cropped area. In the cultivation of major crops and in livestock rearing, the contribution of female labour to total labour requirement was more than half except for marketing operations. No specific trend was observed between female labour employment and the farm size. In the case of livestock enterprise also, the contribution of women labour was around 70 per cent for indoor activities whereas in the case of market-oriented operations, the contribution of male labour was important. The input-output relationship showed that the return to scale was more than one in all categories of farms for all the crops and livestock, thereby indicating that the operations of these farms in the first zone of production function and that there was substantial scope of increasing the farm income by enhancing the input use. The result further showed that the contribution of the female labour to total income in all important crops and livestock was higher than of male labour in all the farm categories, indicating that the female labour was the solo performer of most of the operations. This suggested that for enhancing all/gross household income, the females of the tribal areas needed to be trained in farm/non-farm operations preferably through female extension workers. The time saving energy sources like cooking gas, child care centers, farm tools suitable to hill agriculture, etc. besides better education facilities, should be made available to the women in these tribal areas for better utilization of these resources.

Singh and Garia (1999) analyzed the impact of women participation in agricultural work on their role in decision-making process about economic activities and household matters. The analysis was based on the primary data collected from a stratified random sample of 180 households from six villages of Chamoli and Almora districts of Uttrakhand with the help of a structured questionnaire. The reference year of the survey was 1993-94. Economic valuation of work performed in agriculture has been worked out by multiplying the annual working hours put in by the male, female and child workers by the prevailing wages for different agricultural activities in the region, while valuation of animal husbandry work and domestic work has been done on the basis of wages for
‘other agricultural work’. An analysis of time-wise activity of the respondents showed that of the total working hours spent by the household members, accounted for 85 per cent of agricultural work. The analysis reveals overwhelming economic contribution of women in productive as well as domestic activities in the hill regions of Uttar Pradesh. Thus female family labour contributed as much as 80 per cent of the value of productive work and nearly 90 per cent of the value of domestic work.

The higher participation of women in economic activity was found to have a positive impact on the status and power of women within the household as reflected in their participation in decision-making. Women in the study area enjoyed greater autonomy and power in the domestic affairs than in the economic sphere. Though women performed more than four-fifth of agricultural work; their decisions were accepted only in less than one-third of the cases. The power to take or influence decisions was found to be high in matters related to seed selection (29 per cent), purchase of agricultural implements (30 per cent) and sale and purchase of livestock (34 per cent). However the decisions regarding the purchase/mortgage of land, agricultural credit, sale of produce and use of fertilizers rested with the male members. The intermediation with market forces related to purchase of inputs and sale of output is still through the male members of the household even when their crucial participation in productive activities is relatively small. It was, however, found that this correspondence between work participation and women’s status was not perfect and male domination continued to exist due to the prevalent patriarchy in the society which shaped the attitudes of both males and females.

Singh, Kumari and Choudhary (1999) analyzed the changes in the extent of women’s participation in various economic activities during the period 1971-91, to examine women’s work participation and to estimate the gap in employment of women in different categories of households in agriculturally more developed and less developed situations. The study was based on secondary and primary data. The secondary data were collected from census handbooks and the primary data were collected through field survey in two contrasting situations, i.e. agriculturally more developed and agriculturally less developed regions. The field survey covered a random sample of 200 households selected from four villages, two each from Darbhanga (developed) and Rohtas (less developed) districts in Bihar. In Bihar the proportion of women workers to total workers
showed an increasing trend from 14 per cent in 1971 to 16 per cent in 1991. The number of female cultivators, female agricultural labourers and female construction workers showed an increasing trend since 1971. There was negligible decadal increase in the number of female workers in the agricultural operations like livestock, forestry and fisheries sectors during 1981-91. The analysis of survey data showed that the female workforce formed 23 per cent of the total female population in the agriculturally more developed situation and about 32 per cent in the agriculturally less developed situation. In both the situations the proportion of female workforce to total female population declined with the increase in the size of holding from 29 per cent in the marginal size-groups (below 1 ha) to 10 per cent in the large size-groups (more than 2 ha) in the more developed situation and from 46 per cent to about 2 per cent respectively in the less developed situation. An analysis of gap in employment of female workers revealed that employment gap was relatively higher at 56.25 per cent in the less developed region than in the more developed region (48.96 per cent), indicating higher employment gap on landless households in both the situations (70 per cent and 87 per cent respectively).

Subrahmanayam (1999) found that the introduction of HYV seed and mechanization in paddy cultivation, the two opposing forces on labour demand, had the net effect of a mild increase in the demand for total labour, but a steep increase in the demand for female labour by 85 per cent. This had increased the share of female labour in rice cultivation from 30 per cent to 47 per cent. All this was possible because mechanization was not introduced in the operations performed by females. If sowing and harvesting of paddy were mechanized, there would be a large scale displacement of female labour. The increase in the demand for female labour lead to rise in the share of causal labour in paddy cultivation. However, this can not be interpreted as withdrawal of female family labour on prestige consideration after the increase in incomes resulting from increase in yield and among marginal and small farmers, this proportion was still higher.

Under the present conditions each hectare of land (net area) generates employment for 137 days of which more than one half is for females. However, the generation of employment per hectare varies between 97 days in the low dropping intensity zone with groundnut as the main crop and 257 days in high cropping intensity
zone with paddy as main crop. Paddy, cotton, and chilies have high total as well as female labour content. Sugarcane has the lowest demand for female labour, despite its high demand for total labour. The difference in demand for female labour from across zones rises due to both cropping intensity and cropping pattern.

Thangamani and Kasthuri (1999) studied the socio-economic background of women entrepreneurs and explored the constraints encountered by them. Out of 20 variables, literacy level, experience, decision making, family education, financial support and manpower support were found to have association with entrepreneurial performance.

Tripathi (1999) examined the level and pattern of women’s contribution in hill economy and their participation in the decision-making process at the existing level of resource use. The study was based on an intensive enquiry of 140 farm families selected from 14 villages, six from valleys, six from mid-hills and two from high-hills of Tehri district in Uttar Pradesh. The employment pattern of human labour revealed that annual contribution of women in crop production was 230 days/ha or accounting for about 80 per cent of total labour employment whereas men contributed 59 days/ha or just 20 per cent. The contribution made by women for field preparation, manuring and sowing was 41 per cent higher over male’s contribution and it was as high as 142 per cent in rice crop. Weeding and hoeing accounted for 48 per cent of the total human labour requirement for crop production; of which 45 per cent was contributed by women and 3 per cent by men. Out of total human labour requirement of crop production as a whole, 13 per cent was on harvesting and digging, of which 10 per cent was contributed by women and 3 per cent by male workers.

Female labour employment in fruit production accounted for 64 per cent of the total labour employed and male labour for 36 per cent. The labour contribution of women in milk production was more than 82 per cent of the total labour employed. The participation of female labour was more in operations such as fodder collection, cleaning of cattle shed and in milking and preparation of milk products. Examining the relationship between yield and return received from all the farm enterprises, the results of regression analysis revealed that the contribution of female labour in the production of crop, fruit and milk and to gross farm income was positive and significant, indicating that
the contribution of women in these enterprises was remarkable at the existing level of resource use.

The participation of households in decision-making process revealed that 68 per cent of the decisions were taken exclusively by men alone and 12 per cent by men and women together whereas 20 per cent of the decisions were made by women in the households. On an average, 55 per cent of the decisions regarding agricultural production and 74 per cent of the decisions on animal husbandry matters were taken by men without consulting their women family members although about 80 per cent of the operations of these enterprises were performed by women alone. The participation of women in agricultural decisions on an average was 30 per cent whereas 15 per cent of the decisions were taken in consultation with women. In regard to household matters, women took decisions on 14 per cent of the cases whereas 30 per cent of the cases were decided in consultation with women and 56 per cent of the decisions were taken by males without taking any advice from the women. Thus production, animal husbandry and household matters had been small in spite of their significant contribution in all the activities.

Veerabhadraiah et al. (1999) concluded that the process of women’s empowerment was conceptualized in terms of personal assertions and confidence, ability to protect themselves as women, attaining economic independence, ownership of productive assets, and provide leadership in both women and community related issues at all levels.

Bala (2000) reported that in Moga district of Punjab state, participation of farm women was higher in the uprooting of seeds and transplanting as regards pre-harvest agricultural activities. All the respondents participated in storage of agricultural produce. In dairy farming activities, farm women’s participation was more in management of dung, providing drinking water to animals, milking of animals, processing of milk, marketing of milk, keeping record of milk and care of animals. In activities of vegetable growing farm women’s participation was more in nursery raising and transplanting, weeding and hoeing and cleaning of vegetables.

Bala (2000) revealed that lack of technical knowledge was the major problem faced by farm women in agricultural activities. In dairy farming activities, majority of the respondents faced problems of maintenance of hygiene in the cattle sheds and keeping
records. In vegetable growing activities farm women faced problem in identifying the insect-pests, diseases and their symptoms. The general problems faced by the respondents particularly in agriculture and subsidiary occupation were hard and more physical work and no fixed working hours.

Gurumoorthy (2000) stated that empowering women contributed to social development. Economic progress in any country whether developed or underdeveloped could be achieved through social development.

Agarwal (2001) asserted that women need to be viewed not as active participants in the process of development and change. Empowerment of women can be effectively achieved if poor women could be organized into groups- for community participation as well as for assertion of their rights in various services related their economic and social well being.

Batish et al (2001) studied the income generating activities performed by rural women, their economic contribution towards family income and problems faced by them. The results indicated that income generating activities in which women were engaged included: stitching, embroidery, dari-making, shawl-making, pappad-making and jam squash preparation.

Devasia (2001) stated that women should be empowered not only in financial terms but also of socialization-attitudinal and motivational. There was no need for much inventions and innovations to make certain simple technologies available to rural women, what was needed was reorientation, mobilization and realization of women friendly environment in the rural areas.

Kumar and Rani (2001) reported that in India, women accounted for 40.78 crores as per the 1991 census and constituted the most important target groups in the context of the development planning. Therefore, their concerns must be placed at the top on the priority list of the country’s development agenda.

Pankajam (2001) reported that women had extensive workloads with dual responsibility for farm and household production. Major problem faced by women was that their work as family labour was under-estimated followed by high degrees of inter-state and intra-state variations in gender roles in agriculture, environment and rural
production. Other constraints faced due to gender issues were low wages and problems due to new technologies.

Raghavendra (2001) evaluated the income generating activities and women’s empowerment in the rural areas through self-help group. The analysis revealed a significant change in the participation of group members in diversifying income generating economic activities in rural areas. However, the group approach was becoming more and more significant in alleviating poverty and promoting income generating activities in the rural areas.

Saguna (2001) stated that the economic empowerment of women required transfer of skills of management and control of economic activities to enable women to feel confident and empowered. With women slowly gaining control and being involved in decision-making, empowerment would emerge in the women’s status and position in a larger struggle for social change. She stated that empowerment was the process of awareness and capacity building leading to greater decision-making power and control and transformation action. Women’s empowerment was a base for human liberation and empowerment for all.

Shobha (2001) conducted a study in 14 villages with 138 respondents of Chittor district of Andhra Pradesh and reported that 100 per cent of women belonging to lower socio-economic group being landless had performed all labour intensive activities such as transplanting, weeding, harvesting, winnowing. More than 50 per cent (55 percent) performed sowing, threshing involving muscular activity; therefore, women generally were assisted by men in this task. Poultry care was undertaken by 46 per cent of women in this category. Among the lower middle class socio-economic group of the workers, 100 percent of the respondents performed weeding, harvesting and also prepared food for the labourers who worked on their farms. The majority of women in this group performed winnowing (90 per cent) and transplanting (85 per cent). Among the upper socio-economic group, only weeding and preparing food for the labourers were the activities performed by all the women.

Rao (2002) women are part of the society and their problems should be treated as society’s problems. Women’s emancipation would lead to family emancipation, and
ultimate emancipation of the country. It is in the men’s interest that efforts should be made to improve women’s social, economic and political empowerment.

Gaur (2004) stated that women’s empowerment status is assessed by their economic, educational and health status, participation in household decision-making process, political awareness and psychological strength. Education with employment makes women significantly effective in respect to social awareness, independence and decision-making.

Kamaraj et al (2004) stated that empowering women contributes to social development. Economic progress in any country whether developed or underdeveloped could be achieved through social development. Self-help groups had made the rural women contribute for the socio-economic progress of the country.

Nandal (2006) found it difficult to overstate the importance of women in developing countries like India. Women accounted for 60% of work in agriculture and food production. There was also an increasing trend towards feminization of agriculture owing to conflicts and rural-urban migration. In India, illiteracy was very high amongst women therefore they prefer to stay in agriculture sector because other sectors needed more skills. Growth has been most rapid in labour-intensive manufacturing and largely female labour was used in it. For poor countries with vast supplies of unskilled labour, their ability to compete in international trade lied in the production of those goods and services that made intensive use if such labour.

Tikoo (2006) identified large size of family, illiteracy, ignorance, lack of training, poverty and unemployment as the reasons for women to engage in agriculture. He further identified various problems of female agricultural workers such as wages at lower rates, work discrimination, wage discrimination, problem of technological advancements, absence of opportunity for professional growth, harsh work conditions and seasonal nature of employment. He further suggested that people should realize the miseries, sufferings and sorrows of women and try to put the mark of revolt against existing situations, prevailing social injustice & outstanding social misdoings. To solve their problems women should not fight alone, they must seek the co-operation and sympathy of all. Women themselves should be made conscious about the rights so that they can fight for them.
Brauw et al (2008) tried to build a clear picture of the role of women in China's agriculture, to assess whether or not agricultural feminization has been occurring, and if so, to measure its impact on labour use, productivity and welfare. Contrary to popular perceptions, they debunked the myth that China's agriculture was becoming feminized. They also found that even if women were taking over farms, the consequences in China would be mostly positive – from a labour supply, productivity and income point of view. Finally, there may be some lessons for the rest of the world on what policies and institutions help make women productive when they work on and manage a nation's agricultural sector. Policies that ensured equal access to land, regulations that dictated open access to credit, and economic development strategies that encouraged competitive and efficient markets all contributed to an environment in which women farmers could succeed.

Dhawan et al (2008) felt that general improvement in living standard could also play an important role in bringing about change in the attitude of people towards beneficial health care practices. Even when these women were aware of the beneficial practices, they were not able to actually adopt because of financial constraints or because of social pressures.

Kumar and Jha (2008) demonstrated the visible nature of women’s work on Samastipur farms and suggested that women played a greater role in the production of paddy than that of wheat. Transplanting and weeding in paddy while weeding and harvesting in wheat were the major operations. Women also played a role in many other farm activities including transplanting, primary tillage (in paddy but not wheat), application of manure and fertilizers and irrigation, but were excluded from activities which required operation of machinery.

Pathak and Arora (2008) found that a woman was self-confident, self-reliant and an independent. Women preferred small enterprises such as beauty parlours, boutiques, preparation of decorative items and readymade garments shop. These enterprises were less risk-oriented, did not require huge capital to start, run, maintain and to sustain. Also, they found women to be initially hesitant to set-up their enterprise and started the same at home. After success, they shifted to central places to attract more customers. The setting
up of their enterprise helped them improve their financial and social status as well as made them more independent, self-reliant and self-confidant.