CHAPTER 6

SUMMARY AND POLICY IMPLICATIONS

6.1 Background

Agriculture is the backbone of Indian economy. It is the major source of livelihood for more than 65% of the people and it contributes about 26% to the national income. Hence, the economic growth of our country depends largely on the prosperity of agriculture. This sector acts as a bulwark in maintaining food security as well as national security. The first and the foremost role of agriculture is its promotion of economic progress in the country by enlarging the savings of the rural sector and making them available for the development of industries.

Agricultural systems, and the roles, rights and responsibilities of men and women who farm, differ according to geographical and cultural context. In male dominated society like ours men are assigned those types of work which have a direct exchange value and therefore the work of men is considered more prestigious, while women are assigned work, which has more useful value and is considered less prestigious in the social hierarchy. In the countries like India, occupationally there is no balance between male and female members. The socialization process has created imbalances in the value systems relating women to a satellitic existence.

Women are almost half of the adult population. They constitute one-third of labour force but consume two-thirds of the world’s working hours and yet earn only one tenth of the income and own only one per cent of world property. The real issue therefore, is more serious, despite their involvement in agriculture work in such a long magnitude they have not been actively involved in the main stream of development and there is hardly any appreciation and recognition of their extensive contribution. By and large, they have remained as “invisible workers”. The prosperity and growth of a nation depend on the status
and development of its women as they not only constitute nearly half of its population, but also influence growth of the remaining half of the population. The crucial role of women in agriculture, allied occupations and household activities has, however, been underestimated and undervalued.

Most of the women perform various types of works for their livelihood and agriculture is considered as the biggest unorganized sector where large number of rural women takes part actively. In India, a significant proportion of the population are below the poverty line and it is a fact that labour force participation will increase with poverty, a large proportion of rural women are under a pressure to participate in the labour force. These unknown and unacknowledged beings are responsible to keep the economy at a steady pace and helped the nation to occupy a significant place in the world.

About 80 percent of all economically active women are employed in Agriculture. Women in rural India accounts for a significant share of wage labour in agriculture, typically providing crucial support for poor farm households. Although their earnings contribute significantly to household incomes, many of the agricultural activities that women perform go unacknowledged as work. So, rural women are sometimes referred as “invisible farmers”. Development of women has been receiving a special emphasis, however, in practice it is staggering due to various factors such as low literacy, the restrictive social structure, and predominance of patriarchal society, lack of decision making opportunity and ability, low exposure to growth opportunities.

Though there are many studies focused on the place of women in agriculture, but a few of them thrown light on comparing the role of women in dry land and irrigated agriculture. It is worth to shed the light on the capabilities of women in carrying out the agricultural activities independently. It has also been said that the technological growth in agriculture is biased against female. It is in this context worth studying the potentialities for
feminising the agricultural works either through the technological modifications or value modifications in the societal context.

Although the farm women were found to involve themselves so much in farming, they were not found to have adequate knowledge of modern technology of crop cultivation. This was because there was no deliberate attempt made to give them education about modern technology. Even if some training programmes are organized, it is only the privilege of men to take part in such programmes. This practice needs to be put to an end and involvement of women in farm training programmes has to be made to make agriculture moving.

6.2 Statement of the Problem

Role of women in agricultural activities is found to be appreciable and it enables in the overall development of agricultural sector. In spite of such activities, women have not been given proper status and equal rights in the agriculture. However, in the existing socio-cultural and technological background some agricultural activities are suitable for women and some others are meant only for men. There is a need to study in which activities women participation low and why? Is it not possible for women to do the works which are hitherto confined for the men? And what technological and value modifications are required to enable the women to do these works? The participation of women in agricultural and allied activities is affected by many factors. Hence, there is need to study the effect of socio-economic factors on participation.

Agricultural production depends on the extent of men and women’s participation, technological knowledge and skills among men and women., installation and usage of machinery, appropriate decision making, participation in extension activities for knowledge upgradation and exposure to mass media. It becomes necessary to know, is women participation in various agricultural operations is adequate? If not, why? Whether females are
having the required technological knowledge and skills about agricultural operations? Are women capable of using machinery? If not, why? Are they are they willing to do the agricultural works independently and take suitable decisions? How extension activities and mass media exposure can improve participation, knowledge and decision making? Against this backdrop, it is felt that there is a need to redesign the work culture and technological implications, which might enable the women to be recognized in the agriculture sector.

Davangere district has diversity in several aspects of agriculture and it reflects true picture of the state of Karnataka as well as most parts of the India. The distribution of irrigated and dry land holdings in the district is approximately similar to that of national level. The percentage of total irrigated land area is about 35% and the rest of the land being dry. The district is undergoing a rationale change in implementing new ideas like mechanization and technology use in agriculture. At the same time women are playing a vital role and their contribution in dry and irrigated agriculture in this part of the state needs to be studied. Therefore, this study focuses on the women in dry land and irrigated agriculture in Davangere district of Karnataka state. The micro level study of this nature would be helpful device for local level planning and its implementation.

6.3 Objectives of the Study

- To study the extent of women participation in dry land and irrigated agriculture operations in Davangere district.
- To ascertain the factors influencing the level of women participation in dry land and irrigated agriculture in Davangere district.
- To estimate the impact of mechanization on women employment in dry land and irrigated agriculture in Davangere district.
- To evaluate the level of knowledge about agriculture technology among the women of dry land and irrigated agriculture in Davangere district.
• To study the effect of extension participation, mass media exposure and social participation of women on their participation in agricultural activities.

• To assess the role of women in agricultural decision-making and the effect of socio-economic factors on decision making.

6.4 Hypotheses

• Socio economic factors are influencing the level of women participation in agriculture.

• Mechanization has affected the level of women participation in agriculture.

• Socio-economic background of women influences her level of knowledge about agricultural technology.

• Participation of women in agricultural decision making is influenced by her socio-economic background.

6.5 Methodology

Sources of Data

This study relied on both primary and secondary data. The secondary data is mainly used to get an idea about the profile of study area, which in turn enables the researcher to adopt the suitable sampling design. The important secondary data were collected from different Departments of Government of India and Government of Karnataka. Reports such as Karnataka at a glance and Davangere District at a glance have been collected to analyze the socioeconomic environment of the district. Census report has also been used for this purpose.

Primary data were used to test the hypothesis set for the study and these data were collected from the sample respondents. Specifically designed structured pre-tested schedule given in the Appendix-1 were used to collect the data through the personal interview. Socio-economic factors like age, caste, type of family, occupation, education, land holding, and
family income are included in the schedule. The schedule has been designed in such a way to elicit the information pertaining to respondents’ knowledge and decision making level pertaining to agricultural activities, and their involvement in dairy and daily activities.

**Sampling Design**

The data for the study is collected through a field survey which was conducted in Davangere district of Karnataka state. Davangere District has wide economic disparity. The taluks which have more area under canal irrigation are relatively more developed compared to the taluks which have no or less area under canal irrigation. Davangere and Harihara taluks of the district have more area under canal irrigation and these taluks have been categorized under relatively developed taluks by the high power committee for redressal of regional imbalance. Jaglur taluk has not at all connected with the canal irrigation. Harapanahalli has very less area under canal irrigation. These taluks have been categorized under more backward and most backward taluks respectively. The percentage of net sown area irrigated was found to be highest in Harihara and Davangere taluks and it was found to be lowest in Jaglur and Harapanahalli taluks. Therefore, Harihar and Davangere in the study are considered predominantly as irrigated taluks, and that of Harapanahalli and Jagalur considered as dry land taluks.

Multistage random sampling method has been adopted to choose the sample respondents. In the first stage villages of the selected taluks have been stratified into two categories, irrigated and dry land villages. Irrigated villages are those which have canal irrigation facility and dry land villages are those which do not have the canal irrigation. Four irrigated villages have been randomly selected from Davangere and Harihara taluks. Similarly four dry land villages have been randomly selected from Jaglur and Harapanahalli taluks. From each village 18 respondents were randomly interviewed. Thus, from both dry
and irrigated land areas 144 samples were collected and the total respondents for the study are 288.

6.6 Analytical Techniques

In the present study inferential statistical techniques like chi-square test, Students t-test and correlation analysis have been used to draw the inferences. Since most of the data used for testing the hypothesis of the study are qualitative in nature chi-square test has been widely used to draw the inferences. It has been used to test the significance of association between participation of women in agricultural activities and their socio-economic variables. In order to test the significance of difference in the mean value of two groups Students t-test was applied.

6.7 Major Findings

The major finds of the study are summarized as follows:

- Participation of women in various operations of dry land and irrigated agriculture is found to be selective and specific. Majority of the women participated regularly in sowing, transplanting, fertilizer application, weeding and harvesting and least regularly participating in land preparation, inter cultivation, plant protection measures and in irrigation.

- Women actively participated in the dairy activities which is an allied agriculture activity. Women participation is found to be more in the soft works like keeping water, putting fodder and milking. In hard works, such as, washing animals, cleaning cattle shed, grazing cattle, fodder transportation and chopping, women participation is found to be moderate.
Age of the agriculture women positively influence the level of participation in agricultural activities. Middle and old age women are found to participate in more numbers. The women participation in agricultural activities is relatively high among the illiterates and functionally literates (lower level of formal education) and it is low among the respondents who have higher level of education.

The modern agricultural activities are not associated with the caste of the respondents. Also, there is no strong relationship between the type of family and agricultural participation.

Association between marital status and participation level in agricultural operations is found to be significant. Young women are prevented from participation in majority of agriculture activities. But moderately high level of participation of married women in agriculture activities can be found. High level of participation of widow may be due to the fact that there will not be any body to look after them, so they need to work for their own livelihood or she may be the only person to work for the family income.

The participation of women in agriculture is found to be highest among the women whose husbands are working as agriculture labour followed by agriculturist, business persons, government employees found to be discouraging their wives to participate in agriculture activities.

Low family income category of agriculture women are found in medium level participation. On contrary, majority of the rural agriculture women belonging to the high income group do not go out for attending to farm operations owing to class consciousness and status factors of society preventing them from attending on farm work.

Landholding is another important resource which determines the economic conditions of a farm family. The respondents who do not have a land have ventured for heavier
workload as hired laborers throughout the year. Whereas small farm women possessed low economic status compared to large farm women and they take more workload in agriculture.

➢ It is observed that participation of women in extension programmes is very low

➢ The limited exposure to information sources limits the knowledge of farm women about latest developments in agriculture activities. Further, women were not actively involved in the activities of various organizations which provide information about the agriculture technology and developments, and most of the women were not aware of the developmental schemes meant for their betterment.

➢ There is no significant association between participation level and mass media exposure. The reasons may be due to the fact that (i) women may not get full access to mass media programmes, (ii) due to low level of education women may not understand the programmes properly or (iii) women may not get sufficient time to participate or watch the programmes related to agriculture activities because of her more involvement in household activities.

➢ It is observed that overall social participation level of the respondent is found to be low. Also, it is not possible for a rural woman of Indian culture to be associated with the social organizations to a larger extent like male members in addition to sharing field work along with the husband and household activities.

➢ Ploughing operation has been mechanized by more than 50 percent of the respondents both in the irrigated and dry land agriculture. Mechanization of this operation is relatively more in irrigated area than in dry land areas. Ploughing being a male dominated both in the mechanized and labour intensive method mechanization of this operation will not reduce the employment opportunity to the women.
The farmers who are facing acute scarcity of labour are mechanizing the sowing operation. However, mechanization of sowing reduces the employment opportunity to the women. It is because labour intensive method of sowing is women intensive method where as mechanized method of sowing is men intensive method.

Partial mechanized method of harvesting paddy is women intensive whereas fully mechanized method is men intensive work. Use of combined harvester in harvesting the paddy crop has considerably reduces the employment opportunity to the women. There is an apprehension that the use of combined harvester in harvesting paddy will reduces the employment opportunity to women. It is paradox to observe that farmers are facing the scarcity of labour during the peak seasons despite the problem of unemployment in the country. There is a need to conduct detailed study on the rural labour market.

Active involvement in farm activities and the years of experience in agriculture are the major reasons to gain more knowledge about agricultural technology.

There is a significant association between education and knowledge level about agriculture technology. It is a fact that formal education widens the horizons of an individual’s knowledge in agriculture technology. Formal education of the respondents might have helped them to a greater extent in understanding the importance of agricultural technology.

There is a non-significant association between caste, family type and marital status with knowledge of agricultural technology. These socio-economic variables should not become barrier for the acquisition of appropriate agriculture knowledge. Irrespective of caste and community women should be empowered with right knowledge.
➢ The high income category has moderately high knowledge level compared to low and medium income group. The reasons might be that they may be well educated, participated in extension activities, consulted the extension agencies for the problems regarding farming, which all leads to gain moderately good knowledge about agricultural technology.

➢ The landless respondents were found to involve themselves so much in farming, but they were not found to have adequate knowledge because there was no deliberate attempt to give education on agricultural technology. As size of the land holding increases they would like to do more of supervisory work and may affect their knowledge level.

➢ Highly significant relationship between mass media exposure of farm women and their knowledge about agricultural technology. The use of mass media such as, radio and television provides an opportunity for getting the agricultural information and also helps as reinforcement in gaining more knowledge about agricultural technology. Mass media enable them to clarify their doubts and also enrich their knowledge.

➢ The women participating in extension activities having good education, better knowledge about agriculture technology and regularly participating in agriculture activities may have better decision making capability. So extension participation may not directly and significantly influence the decision making level.

➢ There is a non-significant association between mass media exposure and level of extension participation. This is because women may get exposure to mass media but that may not help her to participate in extension activities due the many reasons.

➢ There is a significant association between level of social participation and level of extension participation. The reason may be due to the fact that women who involve in social organizations might have exposed to outside world and established good
contacts which may help or motivate her to participate in extension activities to the
certain extent.

- The decision making is a higher function of the human brain, which will be affected
  by systematic approach to a study which will be brought by appropriate education.
  Hence the appropriate level of education will enable proper decision making process.

- There is no significant relationship between level of decision making and caste.
  Obviously the caste should not a barrier in appropriate decision making process. Also,
  there is no significant association between type of family and level of decision
  making.

- There is a significant relationship between level of decision making and marital status
  of the agriculture women. The unmarried women may not have acquired the sufficient
  knowledge about agricultural activities and lack of experience leads to low level of
  decision making. Married women may have acquired necessary knowledge and
  experience which may help her in moderate level of decision making. The widows
  with vast level of knowledge and experience will take part in high level of decision
  making. Also, majority of widows will be senior most family member and are
  authorized to take decisions in the absence of male counterpart.

- There is a significant association between level of decision making and occupation of
  husband of agriculture women. The experience, exposure and education are the key
  factors which play very important role in decision making.

- A good correlation can be found between decision making level and family income. It
  is found that majority of the respondents belonging low family income are landless
  labours, and they are not involved in any kind of decision making. Also, majority of
  members belonging to high family income are land owners and are directly involved
  in decision making.
The decision making process will not be applicable for land less women, because their primary duty is labour work. The majority of respondents belonging to large farm women are land owners and are not directly involved in decision making. Therefore, a good correlation is found between decision making level and land holding.

The significant association between level of decision making and knowledge about agriculture technology. The progress of a nation / state / district depends on the education of inhabitants. Knowledge acquired through proper education enables the people to involve in decision making. Also, better knowledge about agriculture technology can be acquired by more participation and involvement, which leads to better decision making.

There is a significant relationship between mass media participation and decision making level of women. This is because women’s exposure to mass media gains more knowledge and her decision making level improves.

On an average woman spent 15.95 hours per day on different activities. Only 18.56 percent of this time is spent for her personal comfort and the remaining time is being spent for the comfort of her family and part of it is also for economic gain to the family.

5.8 Policy Implications

The prevailing socio-cultural values among the socially, economically forward families is not supporting the young women to participate in agricultural activities. Majority of the young women remains unemployed and such resources become economically un-productive. Mass media have to telecast the programs which could bring desirable changes in such values.
➢ To improve women participation and bring her to main stream of agriculture activities, she needs to be provided with better agriculture knowledge by proper training and exposure.

➢ Agricultural education institutions and training centers should develop regular curricula and provide technical training in agriculture and allied sectors to help women farmer take up a vocation in agriculture and allied sector. Also, training in increased managerial organisation entrepreneurial and decision-making skills.

➢ Educational institutions should inculcate the dignity of labour among rural pupil. It may help the participation of educated women in the agricultural activities.

➢ Extension agencies should be strengthened to provide extension services to rural mass. Since, the prevailing socio-cultural values are not in favour of sending women to agricultural extension institutions. The extension agencies should go to each and every village and should train the rural women on various agricultural technologies in their own villages. Since, majority of the well educated women are not actively participating in agriculture, extension agencies need to educate the women who are actively participating in agriculture.

➢ Extension agencies should give preference to the farmers belonging to small and marginal farmers and also to the farmers with low income in providing extension services.

➢ Government agencies need to strengthen the social organizations like SHG’s. It is because women who participate in SHG’s will have better exposure to the outside world and it enhance their participation in extension activities.

➢ In general, a majority of the respondents posses television and radio for their entertainment. So, the government should make efforts to chalk out effective television and radio programs on agriculture to increase the knowledge level of farm women.
Mass media approach should be used for creating awareness, motivation, interest, desire, and conviction among the agricultural women for their benefit which in-turn facilitates acquiring better knowledge and decision making.

One can expect enhanced exposure and exchange of ideas and experiences resulting in increased knowledge through social participation. Participation of farm women in social organization as a member of Grama Panchayath and self-help groups will help to know the developmental programs launched by government and other social organizations. The effective execution of the programs in the areas of health, sanitation and other socio-economic activities for all round developments of rural areas in general and women folk in particular. These factors may help in increasing the level of decision making.

The participation of women in social organizations was unsatisfactory. They must be encouraged by providing freedom to enroll themselves in the various organizations which will help them to socialize and increase the horizon of knowledge through interactions.

Women are not just 'homemakers' but also bread earners in the family, which needs to be highlighted so as to improve the status of women in the eyes of the society.

Society has to recognize women's role as farmers and producers of crops, users of technology, active agents in marketing, processing and storage of food and as agricultural labourer.

The use of combined harvester in harvesting the paddy may be justified on the ground that same land has to be prepared for the next crop. But no such justification could be found for the use of combined harvester for harvesting the maize crop. Maize could be harvested at the leisure time of the farmers. There will be no loss to the farmers even if there is little delay in harvesting the maize. The use of combined harvester in maize will reduce the employment opportunities to the women. Majority of the policies are
expressing the opinion that due to implementation of welfare schemes like, supply of food grains at subsidized price, employment programmes etc. people are aware for work but not willing to work. In this backdrop, the government agencies should not encourage the use of combined harvester in harvesting the maize.

➢ It is paradox to observe that farmers are facing the scarcity of labour during the peak seasons despite the problem of unemployment in the country. There is need to conduct detailed study on the rural labour market.

➢ Women work from morning till evening. Though, most of the works she performed have not exchange value they indirectly contribute to the overall socio-economic development of the family and hence community at large and family members in particular should recognize her service to the family as well as to the society.

6.9 Conclusion

Women in agriculture have vast potential, intelligence and ability, which if trapped properly, may enable them to join the mainstream of agriculture development. The source of exploitation and disabilities of these women are rooted in their ignorance, helplessness, landlessness, lack of education and inequality of status. It is, therefore, necessary to equip women with required information, knowledge and skills to enable them to do their work efficiently and became equal partners in agricultural production. Appropriate structural, functional and institutional measures need to be proposed to empower women and build their capacities and improve their access to inputs such as land, credit and agricultural technologies. Implementing proper technology exclusively designed for women will increase their participation and crop production.