

SUMMARY AND CONCLUSION

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Agriculture dominates economic life of India. At the existing stage of development agriculture represents a large proportion of output of the economy (Sharma, 2005). Women make crucial contributions in agriculture and rural enterprises in all developing countries, as farmers, workers and entrepreneurs. Their roles vary across regions but, everywhere, women face gender-specific constraints that reduce their productivity and limit their contributions to agricultural production, economic growth and the well-being of their families, communities and countries. A study on “**Developing a Model on Public Private Partnership for Gender Mainstreaming in Agriculture**” was taken up, with the following objectives, as to

- identify the Public Private Partnership (PPP) projects available in selected areas
- examine the status of gender mainstreaming in selected PPP projects related to agriculture
- assess the strength and weakness of the PPP efforts
- develop a model of PPP for gender mainstreaming and
- evaluate the impact of developed model

Methodology

The methodology of the study had two phases:

Phase I: Analysis of Gender Mainstreaming in Selected PPP Projects

Phase II: Developing a PPP Model with Gender Mainstreaming in Agriculture

Phase I: Analysis of Gender Mainstreaming in Selected PPP Projects

The study was planned to identify the existing PPP projects in agriculture and allied fields in the three states, i.e., Tamil Nadu, Puducherry (UT) and Andhra Pradesh. In the selected nine districts of Tamil Nadu, one district in Andhra Pradesh and one in Puducherry (Union Territory), totally 75 PPP Projects were located. A score card was used to select five projects from the 75 projects, having scores of first five ranks. The subjects for the

study were chosen from stratified groups given by the public and private partners of the projects. Fifty respondents from each project were selected, in consultation with the public and private partners of the project, thus making a total of 250 subjects. To add credibility, in addition to the stakeholders, one public and one private partner from each of the five projects, thus five public and five private partners in total, were included for the study, making the sample size as 260

The following tools were found suitable for the present study

- Score card was adopted to select five best projects for the study.
- Three different interview schedules were constructed to collect data from the public and private partners and their target groups.

All the respondents were personally interviewed by visiting the project area and meeting project officers. Public and private partners of selected projects were interviewed to obtain institutional details and services provided. Based on the data collected from the respondents, independent and dependent variables were identified.

The data collected were consolidated, tabulated and analysed using appropriate statistical tests such as frequency, percentage, average percentage score, Chi-square test and paired 't' test. The SWOC analysis was done to enable the investigator to understand the extent of gender mainstreaming in the selected projects.

Phase II: Developing a PPP Model for Gender Mainstreaming in Agriculture

Based on the analysis of the projects, a model for gender mainstreaming in agriculture was developed.

The locale selected to develop the model was Ikkaraipoluvampatti village, Thondamuthur Block of Coimbatore District, Tamil Nadu. To establish PPP link, two sets of partners namely Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, Tamil Nadu and Coimbatore Marketing Committee, Tamil Nadu, were selected as public

partners to initiate, implement and manage the project for sustainable adoption by the women.

Farm women group of Ikkaraipoluvampatti (which was registered later as Ikkaraipoluvampatti Farm Women Marketing Society), was selected as one of the private partners, owing to the reason that the women were the producers of the vegetables and they expressed their willingness to participate in the partnership venture. The second private partner was M/s. Sree Annapoorna Sree Gowrishankar Group of Hotels P. Ltd, Coimbatore, Tamil Nadu, which had agreed to buy the vegetables from the women producers.

Based on the partnership, a new model for marketing their agricultural produce was developed through the action project. The PPP Model was formulated to mainstream women in the agricultural marketing by enabling them to take partnership with men. The efforts might turn out to bring economic empowerment to women and motivate them to have gross interest towards agriculture and allied activities, the back bone of the country.

The main purpose of establishing a PPP project for gender mainstreaming is to treat the farm women as one of the partners of PPP linkage and not as respondents. So, efforts were taken to establish a registered society with 40 women (No. 201/2011, Tamil Nadu Registration Act, 1986) to fulfill the marketing needs of the farm women.

The model project for gender mainstreaming in agriculture (vegetable marketing) was evaluated using structured interview schedule. The collected data were analysed to assess the impact of model on marketing practices, gender sensitization, self empowerment aspects, household decision making, social participation and the benefits gained.

The salient findings of the study are presented below:

A. Findings on the analysis of Selected PPP Projects

Socio-economic profile of the respondents of the selected projects

- In the selected projects, male respondents outnumbered females, except in the Jatropha Promotion Project.
- Among the total respondents (250), 30 per cent were marginal farmers, 19 per cent small farmers, 16 per cent medium farmers, 13 per cent large farmers and 22 per cent were landless. All the respondents of the selected five projects had their own house.
- With regard to the educational qualification of the respondents, 70 per cent of the respondents in APPTA (Agriculture Product Producers and Traders Association) Market had completed high school education.
- Sixty six per cent of respondents in the Fisheries Development Project had completed high school education.
- The respondents of Cocoa Promotion Project had completed high school (34 per cent) and diploma (23 per cent) and graduate level (16 per cent).
- Thirty two per cent of the respondents of Jatropha Promotion Project were illiterate.
- Sixty two per cent of the respondents of Precision Farming Project had completed high school.
- Fifty six per cent of the respondents in APPTA Market were earning
- ₹8000-10,000 per month.
- Sixty per cent of the respondents in the Cocoa Promotion project were earning above ₹10, 000 per month.
- Ninety two percent of the respondents in the Fisheries Development Project were earning ₹2000-4000 per month and the rest were earning ₹4000-6000 per month.
- Forty four per cent of the respondents in Jatropha Promotion Project were earning ₹4000-6000 per month.

- Forty six per cent of the respondent in the Precision Farming Project were earning ₹8000-10,000 per month.

Gender participation in agriculture and allied activities

- Greater part of the respondents of all the projects except Fisheries Development Project expressed that men were involved in the purchase of inputs such as manure and pesticides.
- Sixty per cent of respondents in the Fisheries Development Project revealed that women were extensively involved in purchasing of inputs.
- The respondents of all the five selected projects expressed that activities such as handling funds, inter cropping, irrigation operations, pest, weed and disease management, harvesting, post harvesting processes, quality control and marketing are the fields where women participated only to some extent.

Ownership of assets

- A majority of the men owned the houses, lands and permanent assets. Only in some cases, the ownership was with men and women jointly.
- In Jatropha Promotion Project, it was informed that 62 per cent of the women owned land which is heartwarming.
- The gold ornaments were owned only by women; it might be due to the reason that they use it. The other household assets were enjoyed by all the family members.
- Majority of the respondents expressed that they had used their saving for investment on the projects. About 10 per cent of respondents borrowed from different sources to meet their requirements.
- The women were also involved in making decisions on the source of borrowing, amount to be borrowed and the repayment. Apart from the expenditures on the project, some of the respondents had borrowed for family expenditures, which would have been definitely with the knowledge of the women.

Gender role in decision making on home management in the selected projects

- More than 50 per cent of the respondents, except Cocoa Promotion Project, expressed that both men and women were jointly responsible for making decisions on matters like number of children, education and job for children and arranging the marriage for their children.
- About 8 per cent of the respondents of all the selected projects expressed that men took decision with regard to purchase of clothes, only women were involved.

Pattern of decision making in relation to occupation

- More than 76 per cent of the respondents of APPTA Market expressed that men took decision with regard to resource management, field preparation, transplantation, harvesting, preservation processing, grading and packing.
- Above 62 per cent of respondents, except Fishery Development Project, revealed that men decided about marketing their produce.
- About 46 per cent of the respondents of the Cocoa Promotion Project expressed that women were involved in making decision regarding the preparation of land and developing nursery.
- In the Fishery Development Project, according to 60 per cent of respondents, men decided about the 'day' for fishing.
- Seventy six per cent and 62 per cent were of opinion that women regularly decided about 'fixing the price and marketing' and 'grading' respectively.
- More than 60 per cent of the respondents of the Jatropha Promotion Project expressed that men decided about harvesting, packing, making transport arrangements and marketing.
- The respondents of the Precision Farming Project revealed that most of the decisions were taken by men when compared to women.

Satisfaction of the respondents on functioning of PPP Projects

- The respondents of the APPTA Market were fully satisfied with the financial and technical assistance given for the project. Safety and security system coupled with storage facilities were found to be in comfort zones for the respondents, 96 per cent and 91 per cent, respectively.
- In Cocoa Promotion Project, the marketing facilities provided by the private partner won the hearts of the respondents.
- In the Fisheries Development Project, the extent of satisfaction on information dissemination techniques adopted by both public and private partners was expressed (96%) by the respondents, its indicating that they had been individually contacted and convinced for their use.
- In the Jatropha Promotion Project, it is interesting to note that the service and distribution system provided was appreciated by the respondents.
- In the Precision Farming Project, the aspects such as subsidies extended by the public partner, financial and technical support and service and distribution system had a positive impact on the respondents.

Satisfaction of the respondents on the outcome of the project

- The best practice of solid waste management and effective infrastructure development for marketing the agricultural produce by APPTA project, could be a replicable role model to be emulated
- The respondents of Cocoa Project gained profit through inter cropping of cocoa plantation in coconut farm, arecanut farm and orchards
- Women empowerment was considered to be the final outcome of the Fishery Development Project supported by the majority (89 per cent) which highlighted that the income generating activities such as salted dried fish and masala fish making among women, was quite encouraging

- In the Jatropha Promotion Project, profit gained was low because of lack of awareness on the crop management practices
- Eighty six per cent of the respondents in Precision Farming Project were fully satisfied with the income generation.

Gender Sensitization

- More than 64 per cent of the respondents expressed that the household activities like management of home, child care and diet management, acknowledged the unstained commitment and dedication of women towards family.
- In the farm activities, the attitude of the respondents of the APPTA Market and the Precision Farming Project, towards gender mainstreaming ranked “below average”. Except APPTA, all others showed ‘Excellent’ response in providing equal opportunity to both men and women in the social participation.
- More than 60 per cent of the respondents of Fisheries Development Project expressed that, women folk were suitable for “management of finance”.
- Higher proportion of the respondents in the Cocoa Promotion Project expressed that, both men and women could manage the finance. More or less, same trend was noticed in APPTA and the Jatropha Projects also.
- When the benefits gained by the men were compared with that of women, they were at a lower platform.
- But both men and women were getting benefits jointly in personal, economic and social aspects.

Problems faced

- In the APPTA Market, the main problem faced by the respondents was non-cooperation between labourers and owners followed by poor shop management during peak hours, poor customer care, absence of profit analysis, unaware of the sales details of the shop and poor quality management.

- The respondents of the Cocoa Promotion Project expressed that the major problems faced were, complication in planting procedure followed by difficulty in ploughing in between the trees and reduced yield.
- Major problems faced by the fishing community were boundary problem (border limit), and getting reduced quantity of fish. The unemployment and underemployment problems might be due to restriction of fishing schedule for only three days per week.
- In the Jatropha Promotion Project, the respondents lack the knowledge of preserving the Jatropha seeds and maintaining the oil content of the seeds which lead to reduction in the weight of the seeds and as result of it market price of the seeds becomes low. Lack of buy back arrangements and provision of poor quality saplings was one of the main concerns for the farmers.
- Lack of guidance on disease management was the main problem faced by the respondents in Precision Farming Project followed by lack of post installation service of drip and fertigation unit and also quality of materials supplied was not good

Suggestions

- Maintaining awareness of market trends in the retail industry, understanding forthcoming customer initiatives and monitoring the local competitors were the suggestions given by the respondents for the success of the APPTA Market.
- In the Cocoa Promotion Project, the suggestion included that the weeding and shade management need to be improved, because the Cocoa plant needs 50 per cent shade for better growth.
- The respondents of the Fisheries Development Project expressed that the Government of Tamil Nadu must give financial and marketing assistance for the same. Government policies should focus on the development of fishing community during the off-season to reduce the unemployment and underemployment problems.

- The primary suggestion given by the respondents in the Precision Farming Project was that the chemical fertilizers and pesticides in correct quantity through precision farming technique would help to reduce the problem of the farmers.

Strengths

- ❖ Farm women received a loan with 95 per cent of subsidy in Cocoa Promotion Project.
- ❖ Fisherwomen were exposed to various training programmes
- ❖ Waste land was utilized for promoting Jatropha by the women Self Help Groups.
- ❖ Coconut growers were interested to establish Cocoa as an intercrop
- ❖ APPTA Project facilitated hi-tech marketing infrastructure
- ❖ Fishery Development Project beneficiaries had access to weather reports
- ❖ Precision farming was practiced with cent per cent subsidy

Weaknesses

- ❖ Implementation of the Cocoa Promotion Project revealed that only 12per cent of farm women owned land on their name.
- ❖ Cocoa and Jatropha Promotion Projects were restricted only to the farmers owning Coconut and arecnact plantation and waste land respectively. So that it cannot be adopted by all the farmers. Hence it restricted the involvement of other farmers.
- ❖ Except APPTA Market, there were no associations for farmers to take care of their interest.
- ❖ Women had very little role in the marketing of their agricultural produce except in APPTA Market
- ❖ Only in Cocoa and Jatropha Promotion Projects tie-up arrangement were provided for marketing.

Opportunities

- ❖ There was opportunity for large scale implementation of Cocoa growers.
- ❖ APPTA type of market could be established wherever possible
- ❖ The positive result of precision farming had scope for scaling up.

Challenges

- ❖ Jatropha Promotion Project aimed at waste land cultivation. But even those plantations need minimum water facilities in the beginning stages. Even that minimum requirement was not available in certain geographical locations.
- ❖ In the entire project, there was subsidy component. Sustainability of the project, even without subsidy, needed to be maintained.

In the second phase of the study, efforts were taken to establish a Model Project with the participation of farm women, who were the producers of vegetables at Ikkaraipoluvampatti, Thondamuthur Block of Coimbatore District. The results of the efforts are discussed as follows:

B. Findings on the Performance of Model Project

Socio - economic profile of the members of Farm Women Marketing Society (Model Project)

- Majority of the respondents (85 per cent) were under the age group of 31-50 years.
- Ninety five per cent of the respondents belonged to Backward Caste and remaining belonged to Schedule Caste.
- All the respondents were married and 87.5 per cent were in nuclear families.
- More than 80 per cent of respondents had the family income above ₹6000/-.

Cultivation of crops by the members of Farm Women Marketing Society

- All of them cultivated small onion, coriander leaves, cauliflower and green chilly.
- Turmeric was the major cash crop cultivated through crop rotation method.
- As all the respondents had livestock and farm animals, where Jowar (Sorghum bicolor) was used to feed the livestock.

Gender participation in agriculture and allied activities

- More than 55 per cent of the respondents expressed that the women played dominant role in activities such as inter cropping, harvesting and post harvesting processes.
- Majority of the respondents (85 per cent) revealed that only men were involved in arranging for the marketing of produce, management of equipment related to their work and purchase of agricultural inputs such as manure and pesticides.
- Fifty five per cent of the respondents expressed that both men and women jointly participated in pest, weed and disease management.

Functioning of Farm Women Marketing Society

- The reasons for establishing the Farm Women Marketing Society as expressed by the members of the society were to get a status in the society as a member of a recognized organization, gain an increased profit through better marketing source, marketing the agricultural produce without intermediaries and getting technical help/subsidy from the government.
- Bimonthly meetings were conducted regularly by the Farm Women Marketing Society to discuss on the supply of vegetables, collection of the saving and maintenance of the registers and records.
- The main causes which hindered the participation of women in the activities of the society as stated by the members were lack of

communication among the members and also paucity of time due to family demands.

- Three fourths of the women supplied cauliflower, green chilly, coriander leaves and bottle guard through Farm Women Marketing Society to M/s. Sree Annapoorna Sree Gowrishankar Group of Hotels P. Ltd. Totally 15,526 kg of vegetables were supplied by the Farm Women Marketing Society to Annapoorna Hotel., during the project period.
- The rate of vegetables in the wholesale market were collected and compared with the rate of Sree Annapoorna Hotel. A significant difference between the two rates was observed, which determines the profit chain for the farmers for the whole vegetable supply. They got fair price without intermediaries and directly marketed through Sree Annapoorna Gowrishankar P Ltd.
- The results of paired t-test value showed that there is a significant increase in the involvement of women in marketing system and the profit gained.

Benefits Accrued by the Members of Farm Women Marketing Society

- All the respondents had desire to improve living conditions and change the attitude towards group action.
- Ninety per cent of the respondents were able to operate bank transactions and 87.5 per cent of the respondents had obtained good social status.
- Seventy five per cent of the respondents reported that, they could travel alone, had the confidence to take care of their family, developed innovativeness, became economically independent with economic security and able to face challenges.
- Seventy five per cent of the respondents were able to take decisions on financial management of the family and 72.5 per cent of the respondents on purchase of household articles, after joining in the action project.

Gender Sensitization among the Members of Farm Women Marketing Society

- The calculated paired 't' value of the gender sensitization among the women were highly significant indicating a difference in their household activity, farming activity, social activity and financial management, except weed, pest and disease management. It could be concluded that the change in attitude of the farm women towards gender role in home and farm had increased, after implementation of the model project.
- Participation level of the farm women in social activities had also improved due to various linkages with developmental departments.
- The confidence level in managing the fund flow at home was developed among the farm women due to familiarity in management of savings and accounts in Farm Women Marketing Society.

Analysis of the Model project for the Strength, Weakness, Opportunities and Challenges (SWOC)

Strengths

- ❖ Avoiding intermediaries and getting fair price through direct marketing
- ❖ Getting awareness about technologies available for agriculture and allied fields
- ❖ Involving women in community activities and creating social cohesion
- ❖ Widening the opportunities for capacity building and income generation for economic independence

Weakness

- ❖ Lack of financial help from the public partners
- ❖ Cumbersome procedure and delay in the process of marketing

Opportunities

- ❖ Popularizing the direct marketing to other farmers
- ❖ Empowering women for active involvement in marketing
- ❖ Scope for strong linkage between public and private partners

Challenges

- ❖ Scope for effective mechanism to scale up the model project
- ❖ Innovation in linking new partners
- ❖ Production and supply of quality products by the society

Suggestions and Recommendations

Suggestions and recommendations given by the public and private partners to overcome the challenges in the Model Project for gender mainstreaming are as follows:

Avinashilingam Institute for Home Science and Higher Education for Women

- ❖ Choosing suitable partners with maximum of complementary skills and resources
- ❖ Involving the partners overcoming the “barriers” in functioning of PPP
- ❖ Mutual understanding among the partners
- ❖ Training programmes to suit the needs of women members

Coimbatore Marketing Committee

- ❖ Setting up the high target for the supply of required vegetables for marketing
- ❖ Orienting the rural women to access the land and water resources and credit services.
- ❖ Designing strategies to enhance the capacity of women in farm operations and post harvesting processes.

Farm Women Marketing Society

- ❖ Providing transport facilities for collecting the produce from the source
- ❖ Extending financial assistance for effective functioning of the Farm Women Marketing Society
- ❖ Establishing an alternative marketing agency
- ❖ Providing training on gender issues

Sree Annapoorna Sree Gowrishankar Group of Hotels P. Ltd

- ❖ Organization of periodical interface meetings to iron out the inadequacies
- ❖ Provision of infrastructure facilities for procurement of the produce
- ❖ Systematic supply of quality products
- ❖ Involvement of likeminded, energetic groups in the network.

Conclusion:

The public private partnership in agriculture is the strongest and innovative strategy, which will penetrate into each and every beneficiary. There are still many bottlenecks and implications of technology transfer and commercialization, need to be properly understood. There is a need to create an interface between inventor, technology user and farmer. Proper selection of partners and their harmonious interaction is very important for the success of a partnership. The existing PPP models should be analyzed to develop appropriate guidelines for entering into future partnerships and for fostering gender mainstreaming in all the operations and technology transformation to bring about sustainable development.

This model can be replicated with suitable modification, in the area in which the PPP Projects are to be introduced. The policy makers and development personnel can use this model as a guide for planning and implementing PPP Projects, to have gender mainstreaming in agriculture and allied activities.