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Impact of public private partnership model on women empowerment in agriculture

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ABSTRACT

A study was undertaken to assess the impact of three public private partnership (PPP) models in agriculture which were implemented as part of ICAR network project namely "Public private partnership for gender mainstreaming in agriculture" by the Central Institute for Women in Agriculture (CIWA), Bhubaneswar during 2009-2013. After forming the farm women groups and framing of memorandum of understanding (MOU) with both public and private planers, the PPP model was successfully demonstrated on vegetable cultivation in Coimbatore district of Tamil Nadu, mushroom cultivation in Palakkad and Thrissur districts of Kerala and vermicompost production in Jorhat district of Asom. Primary data were collected from members of farm woman group with 24 respondents in Tamil Nadu, 20 respondents in Kerala and 30 respondents in Asom in the month of April 2016. Frequency and percentage were worked out to interpret the results. Farm woman had better understanding about the concept of PPP and its utility. The relatives and neighbours although discouraged the PPP model in Tamil Nadu, extended whole hearted support in Kerala and Asom. Farm women realised 20% more income and 10% additional employment generation in all the three states. PPP models enhanced the access of farm woman to training, market, extension and financial services. They also helped the farm women to build up their confidence and team spirit. The critical input from these field level demonstrated models would help to form or strong extension strategy for promoting partnership based models in agriculture.

Key words: Gender, Impact assessment, Public Private Partnership, Women empowerment

Public private partnership (PPP) approach created large number of success stories in various sectors of economy including agriculture, health, science and technology, education, and infrastructure development in India. In fact, initiatives on similar lines have been attempted during the various phases of agricultural development of the country but significant momentum in these could be achieved after the implementation of Agricultural Technology Management Agency (ATMA) (Ponnusamy *et al*. 2012). However the social and technological empowerment of women who perform major agricultural tasks cutting across regions and enterprises of the country has been limited by historical and sociological reasons. Compared to men they face severe constraints in accessing production resources, markets and services in all sectors including agriculture (Pandey *et al*. 2016). Therefore, an attempt to utilize the potential of PPP strategies for gender specific interventions was made under the national network project on public private partnership for gender mainstreaming in agriculture implemented in selected northern, southern, eastern and western states of India. Considering the importance of women in agriculture and their potential for accelerated agricultural progress, an impact assessment study of the effect of PPP model demonstrated in selected farm enterprises under the project on women empowerment was conducted in 2016 and the paper is based on the results. The paper describes the impact of PPP model on different dimensions of gender empowerment and constraints faced by women SHGs operating under the model.

MATERIALS AND METHODS

National network project on public private partnership for gender mainstreaming in agriculture was taken up during 2009-2013 to demonstrate the PPP as an approach to empower women in agriculture by building their capacities from production to marketing aspects. Central Institute for Women in Agriculture (CIWA), Bhubaneswar was the nodal network centre which had five implementing centres at the Agricultural Universities of Kerala, Haryana, Jodhpur, Asom and Avinashaligham University for Women, Tamil Nadu. Each network partner implemented an action research

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project for demonstration of the effectiveness of PPP model in selected farm enterprises. They formed a farm women group who were imparted intensive training on selected farm enterprises after gender sensitization. The model envisaged a written Memorandum of Understanding (MOU) with specific roles, responsibilities and functions signed by all public and private partners with the legitimizing partnership of the local Panchayat Raj Institutions (PRI).

To understand the current position and utility of the interventions, an impact assessment study of the three randomly selected centres of Tamilnadu, Assam and Kerala was conducted in April 2016 using a pre-structured scheduled developed for the purpose. Following three PPP models were taken up for impact assessment. 1. PPP model on vegetable cultivation in Ikkaraipoluvampatti village of Thondamuthur Block in Coimbatore district. 2. PPP model of vermicompost production in Jorhat district of Asom. 3. PPP model in mushroom production in Palakkad and Thrissur districts of Kerala.

Members who were part of the group from its initiation in 2009 were purposively selected for the study. Accordingly, 24 respondents from Tamil Nadu, 20 from Kerala and 30 from Asom formed the total sample of 74 for the collection of primary data in 2016.

RESULTS AND DISCUSSION

Socio-economic profile of women SHG members under PPP: The socio-economic characteristics of the women SHGs are presented in Table 1. The results indicated that majority of the respondents belonged to middle age and above indicating a wider farming experience in all the three states. The women who came forward to participate in the PPP activities were found to possess relatively better educational background which indirectly influence the lesser educated women also in the village for participation in the profit oriented ventures. College educated respondents (20%) were found only in Kerala reflecting the high level of literacy in the state. Majority of their spouses were also involved in farming and lesser number was found in business and other service sectors. Medium sized family was seen in all the three states and vast majority of the respondents (83.33%) belonged to small and marginal land holding categories.

Impact of PPP model on gender empowerment

Impact of PPP model on gender empowerment was studied on dimensions of material capital (changes in income, employment, access to credit and market), social capital (family support, support of friends and relatives) and human capital (changes in conceptualization, skill and knowledge).

Impact on income: Increase in income expressed as percentage from the PPP interventions in SHGs were measured for the three states (Table 1). In Tamil Nadu, there was 10-20% increase in income level due to PPP for half of the respondents (50%) while in Kerala there was an increase of 21-30 per cent. In Asom, 63.33% of the respondents had only less than 10% increase in income as many of them were using the vermicompost for their own field apart from providing to neighbors and relatives for which they did not receive any money. Thus it can be inferred that the type of farm enterprise also mattered as perishable commodities like mushroom fetched high returns when they were timely marketed.

Table 1 Impact on income and employment levels of farm women under PPP

Category	Tamil Nadu		Kerala		Assam	
	F	%	F	%	F	%
Income						
No increase	10.00	41.67	0	0	0	0
Less than 10%	02.00	08.33	0	0	19	63.33
10-20%	12.00	50.0	06.00	30.00	06.00	20.00
21-30%	0	0	10.00	50.00	05.00	16.67
31-40%	0	0	02.00	10.00	0	0
More than 40%	0	0	02.00	10.00	0	0
Employment						
No increase	12	50	0	0	0	0
Less than 5%	4	16.67	8	40	0	0
5-10%	4	16.67	10	50	20	66.67
11-20%	4	16.66	2	10	6	20.00
21-30%	0	0	0	0	4	13.33
More than 30%	0	0	0	0	0	0

Impact on employment: Fifty per cent of the respondents in Tamil Nadu did not feel any increase in employment level due to PPP as they were cultivating the vegetables for long time and there was no scope of generating additional employment opportunities due to PPP project. But in Kerala as well as Asom, there was 5-10% rise in employment due to PPP for 50% and 66.67% respondents respectively (Table 1) as mushroom and vermicompost were introduced as new enterprising activities in the respective regions and hence generated additional employment for the respondents.

Impact on access to credit and market: It can be seen from Table 2 that that the maximum impact of PPP could be observed in access to market and extension services although variations in the level of access were there from one state to another. Mushroom cultivation of Kerala model had shown a maximum impact in credit access as credit was an inbuilt component of the model with the support of nationalized bank. The interaction meeting in the project villages revealed that the farm women understood the innovative ways of marketing, free mind interaction, good social relationship, opportunity to know many things, better access to financial resources, increase in confidence level and getting more respect from family members. The PPP project also ensured a good leisure time and effective management of family and farm as expressed by the farm women in the interaction meeting. The impact study established that agricultural intervention with women friendly approaches can greatly improve the bargaining power, both in family

Table 2 Change in credit and market access under PPP

Change in accessibility	No change	1-25%	26-50%	51-75%	76-100%
Tamil Nadu					
Credit services	25	41.67	25	8.33	0
Govt. offices	0	41.67	33.33	16.67	0
Kerala					
Credit services	0	0	0	50	50
Market	0	0	45	55	0
Extension service	0	10	60	30	0
Govt. offices	0	50	50	0	0
Asom					
Credit services	0	60	40	0	0
Market	0	0	46.67	53.33	0
Extension service	0	0	56.67	43.33	0
Govt. offices	0	0	63.33	36.67	0

and outside (Allendorf 2007) and narrowing gender gap would have a significant positive effect on household food security and resource allocation (Malapit *et al.* 2013). The few successful public-private partnerships and their successful collaborations from different states of India have shown their contributions to gender mainstreaming, food security, poverty reduction and economic growth (Harris *et al.* 2005). Assured buy-back of produce should become the main critical factor for success of the PPP projects in agriculture.

Family support to involvement in PPP: In Tamil Nadu, 50% of the respondents had full support of family members for PPP initiatives. But in contrast, 65% of the respondents in Kerala received partial support from family members (Table 3). In Asom 83.33% respondents received full support from their family in PPP. When the family members developed the confidence in the PPP project, they will usually extend full support and hence strong gender sensitization programmes are essential at village level.

Support of relatives and neighbours for PPP: Results from Table 3 revealed that in Tamil Nadu 50% respondents faced discouragement from relatives and neighbours for PPP. In Kerala and Asom 70 and 76.67 per cent respondents were appreciated by their relatives and neighbours for PPP, respectively. There is a mindset among some of the farmers that quick disposal of farm produce is more important than realising the higher returns for their farm produce. So they normally express aspersions about these types of innovative ideas. However, they will be convinced of the new approaches once they witness the appreciable benefits from such approaches.

Table 3 Support of family members, relatives and neighbours for PPP

Category	Tamil Nadu		Kerala		Asom	
	F	%	F	%	F	%
Support of family members						
Full	12	50	5	25	25	83.33
Partial	8	33.33	13	65	5	16.67
No involvement	4	16.67	2	10	0	0
Support of relatives and neighbours						
Appreciated	8	33.33	14	70	23	76.67
Appreciated and adopted	4	16.67	4	20	7	23.33
Discouraged	12	50.00	2	10	0	0
Tried to stop PPP	0	0	0	0	0	0

Psychological improvement due to PPP: It is seen from Table 4 that maximum people felt the enhancement in team spirit, risk bearing ability and ability to handle group activities due to PPP in Asom followed by Kerala. Both Asom and Kerala had introduced new enterprises which have created new opportunities for market, finance, extension which ultimately resulted in enhanced confidence and team work. The vegetable cultivation model of PPP in Tamil Nadu could not make much headway on psychological domains of the farm women due to non-realisation of desired level of benefits from PPP.

Understanding of PPP concept: It could be observed

Table 4 Psychological improvement due to PPP

Domain (%)	No change	1-25%	26-50%	51-75%	76-100%
Tamil Nadu					
Self-confidence	8.33	58.33	8.33	8.33	16.67
Team spirit	0	50	8.33	16.67	25
Risk bearing capacity	8.33	25	33.34	8.33	25
Ability to handle group conflicts	8.33	33.33	16.67	16.67	25
Readiness to meet extension officers	4.17	25	37.5	25	8.33
Kerala					
Self-confidence	0	0	10	70	20
Team spirit	0	0	45	30	25
Risk bearing capacity	0	20	65	15	0
Ability to handle group conflicts	0	15	50	35	0
Readiness to meet extension officers	0	25	55	20	0
Asom					
Self-confidence	0	0	0	40	60
Team spirit	0	0	0	63.33	36.67
Risk bearing capacity	0	0	23.33	46.67	30
Ability to handle group conflicts	0	0	0	56.67	43.33
Readiness to meet extension officers	0	0	0	66.67	33.33

that most of the respondents perceived that PPP is concerned with building linkages with different stakeholders and doing some activity with the participation of government officials (Table 5). Around one-fourth of the respondents felt that PPP can also promote women empowerment and it can generate additional income for the family members. This indicates that the participants of PPP positively perceived about the utility of PPP approach.

Impact of PPP on knowledge and skill: Changes in the cognitive and implementation skills of the members showed variation between the states. Maximum change was recorded from Kerala where all the members showed knowledge and skill improvement of over 50%. Least change was reported from Tamil Nadu where 16.67% had no change in their knowledge and skill after working under PPP (Table 6). The results were indicative of the inherent receptiveness of the members which is dependent on education and social environment.

Perception about utility of PPP: Perceptual differences among the SHG members with respect to the utility of PPP are presented in Table 7. The results indicated that 50% of the respondents in Tamil Nadu perceived that PPP project would enable the farmers to obtain fair price and more benefit. In Kerala, 65% of the respondents felt that PPP project can help them to avoid commission agents because of the direct marketing. In Asom, 40% of the respondents felt that PPP project provided motivation to adopt new marketing methods as well as support from host of institutes to strengthen group activities. Majority of the farm women practiced traditional method of production and local marketing prior to PPP project. For example, majority of the respondents in Kerala produced mushroom for home consumption and sold the excess in neighborhood when there was a support under women development scheme of the State Department of Agriculture. But they discontinued after the project period as there was no agency for supply of spawn in the area. However, there was no facilitation from any quarter for better sale of farm produce with bargaining power.

The interaction with stakeholders in different states revealed that farm women perceived some advantages in earlier methods of farm produce disposal that there was no need to trade the commodities as it can be disposed as such to commission agents at the farm gate itself. However, commission agents used to take more commission for the agriculture produce and thereby affecting the full profit realisation of the farmers. Thus PPP model served the purpose of commercialization of agriculture through better marketing and informed decisions on pricing.

Constraints in executing PPP activities: Although, the PPP is projected to address the constraints of farmers through offering a fair price for commodities, risk sharing, capacity building and timely payment (Hisrich and Peters 2002, Krishna and Qaim 2007, Reddy and Rao 2011, Ponnusamy 2013), the farm women also faced number of constraints.

Table 5 Understanding of PPP concept by SHG members

Meaning assigned to PPP	Tamil Nadu		Kerala		Asom	
	F	%	F	%	F	%
Women empowerment through group activity	6	25.00	7	35.00	8	26.67
Building partnership with relevant stakeholders	10	41.67	11	55.00	9	30.0
Higher income generation through group activity	11	45.83	9	45.00	7	23.33
Doing some activity with the support of the Government	7	29.17	9	45.00	12	40.00

Table 6 Impact of PPP on knowledge and skill of SHG members

Domain of change (%)	No change	1-25%	26-50%	51-75%	76-100%
Tamil Nadu					
Knowledge	16.67	50	16.67	8.33	8.33
Skill	0	75	12.50	0	12.50
Kerala					
Knowledge	0	0	0	35	65
Skill	0	0	0	45	55
Assam					
Knowledge	0	33.33	33.33	33.33	0
Skill	0	83.33	16.67	0	0

Table 7 Perceptual difference among respondents and constraints about PPP in agriculture

Perception about PPP	Tamil Nadu		Kerala		Asom	
	F	%	F	%	F	%
Perceptual difference among respondents about PPP in agriculture						
Motivation to adopt new marketing methods	8	33.33	7	35.00	12	40.00
Avoiding commission agents because of direct marketing	6	25.00	13	65.00	9	30.00
Financial and technical support from host of institutes to strengthen group activities	9	37.50	3	15.00	10	33.33
Fair price and more benefit from PPP project	12	50.00	9	45.00	15	30.00
Constraints in executing PPP in agriculture						
Inability to supply as per the quality standards specified buyers	12	50	0	0	0	0
Discriminatory pricing based on quality	15	62.5	9	45	0	0
High transportation charges	5	20.83	5	25	8	26.67
Lack of family co-operation	9	37.5	0	0	5	16.67
Allotment of extra time for PPP activity	13	54.17	5	25	6	20

Biggest hurdle faced during different stages in PPP activities in Tamil Nadu and Kerala was discriminatory pricing based on quality of the farm produce as the buyers in the PPP project emphasized number of quality standards which the farm women felt very difficult to pursue. Production of items with uniform standards such as size, colour, texture, shape etc was difficult due to the interplay of various bio-physical factors at the farm level. Farm women also felt difficulties in selling of produce on market holidays (Table 7). Sometimes, agencies rejected the produce citing minor faults. Moreover, agencies refused to enhance the procurement prices when the market price rose quoting the agreement in MoU. In Asom the biggest hurdle was high transportation charges for marketing of vermicompost. The respondents felt the shortage of raw materials and lack of place for production and storage of vermicompost as constraints in Asom.

The study has assessed the impact of selected public-private-partnership (PPP) models in three farm enterprises foe their contribution to women empowerment. the study has proved that three PPP models have contributed to better understanding of partnership based models of agricultural progressiveness, effective senitization of family members, neighbours and relatives, additional income and employment generation and enhanced access to extension,finance and market resources which ultimately resulted in gender empowerment. The findings indicated that while incentives and perceptions do differ between different models, sufficient common space can be createdthrough mutual sharing of risks and benefits for strengthening partnerships. Social entrepreneurship development strategies should Bwecome a part of PPP strategy for gender mainstreaming. The future agriculture heavily depends on effective partnership between private and public players both in production and marketing. Hence, inputs from such field level demonstrated successful PPP models need to be used for policy making and extension planning.

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