# Pomra Community Forestry Project : A model for Socio-economic Upliftment of the Rural Poor Women

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# Abstract

A study was conducted on the socio-economic upliftment of the rural poor women in Pomra Community Forestry Project (CFP) of Rangunia, Chittagong compared to those in the adjacent Non-CFP areas. Thirty sample families from each group reveal that the women populations are same (45%) in both the areas. Women who can read and write in the CFP and Non-CFP areas have been found to be 66% and 37% respectively. About 29% and 35% female workforce have been found in these two areas with 1.7 and 2.1 women per family. It has been found that 53% and 20% women are conscious about health while 70% and 53% women found to be liberal to talk or meet visitors or strangers in the CFP and Non-CFP areas respectively. The average annual income per family have been found to be Tk. 20,640/- in CFP and Tk. 3,608/- in Non-CFP areas where the contribution of female workforce are Tk. 8,997/- and Tk. 1,647/- respectively.

CFP has also accelerated 80% women to work in agricultural/horticultural fields, 80% in provisional jobs, 73% attending professional training, 60% attending social meetings and 70% going to bazar herselves, which are significantly different than in the Non-CFP families ( $t_{.01}$ =3.4 with 12 d.f.). Besides, 70% and 37% couples jointly take their decisions in the CFP and Non-CFP areas respectively, the difference of which is also statistically significant ( $\zeta^2_{.01}$ =6.7 with 1 d.f.). Moreover, 47% houses have tinned roofs in the CFP compared to 16% in the Non-CFP areas. It may, therefore, be inferred that the socio-economic condition of the landless families rehabilitated with 1.6 hectares of khas land have substantially been improved than they had before. It is expected that the ownership of the land made them active and encouraged to generate sources of higher income which ultimately resulted the socio-economic upliftment of the rehabilitated women.

### সারসংক্ষেপ

চট্টগ্রামের রাঙ্গুনিয়া থানার পোমরা সামাজিক বনায়ন প্রকল্পের নিকটবর্তী এলাকার মহিলাদের তুলনায় প্রকল্পাধীন মহিলা সম্প্রদায়ের আর্থ-সামাজিক উন্নয়ন কিরপ সাধিত হইয়াছে তাহার উপর একটি সমীক্ষা চালানো হয়। প্রত্যেক এলাকার ৩০টি নমুনা পরিবারের উপর সংগৃহীত উপাত্ত হইতে দেখা যায় যে, উন্তয় এলাকায়ই মহিলা জনসংখ্যা মোট জনসংখ্যার শতকরা ৪৫ ভাগ। প্রকল্প এলাকায় ও প্রকল্পের বাহিরে পড়িতে ও লিখিতে জানা মহিলার সংখ্যা যথাক্রমে শতকরা ৬৬ জন ও ৩৭ জন পাওয়া যায়। যেখানে প্রকল্প এলাকায় শতকরা ২৯ জন মহিলা কাজ করে সেখানে প্রকল্প বহির্ভূত এলাকায় শতকরা ৩৫ জন মহিলা কাজ করে যাহাদের প্রতি পরিবারে মহিলা শ্রমজীবির সংখ্যা যথাক্রমে ১.৭ জন ও ২.১ জন। দেখা যায় যে, উন্তয় এলাকায় যেখানে থকাক্রমে শতকরা ৫৩ ভাগ ও ২০ ভাগ মহিলা স্বাহ্যসচেতন সেখানে শতকরা ৭০ ভাগ ও ৫৩ ভাগ মহিলা অপরিচিত ব্যক্তি বা আগন্তুকের সহিত কথা বলিতে স্বাচ্ছন্দ বোধ করে। প্রকল্প বহির্ভূত এলাকায় যেখানে পরিবার প্রতি বার্ষিক গড় আয় ৩,৬০৮.০০ টাকা সেখানে মহিলাদের অবদান ১,৬৪৭.০০ টাকা এবং প্রকল্প এলাকায় যেখানে ২০,৬৪০.০০ টাকা সেখানে মহিলাদের অবদান ৮,৯৯৭.০০ টাকা পাওয়া যায়।

ইহা ছাড়াও দেখা যায় যে, পোমরা সামাজিক বনায়ন প্রকল্পের কারণে শতকরা ৮০ ভাগ মহিলা কৃষিক্ষেত ও ফলের বাগানে, ৮০ ভাগ বিভিন্ন বৃত্তিমূলক কাজে, ৭৩ ভাগ পেশাগত প্রশিক্ষণ লাভে, ৬০ ভাগ সভা সমিতিতে অংশ গ্রহণে এবং ৭০ ভাগ মহিলা একাকী হাট-বাজারে যাতায়াতে আগ্রহী এবং স্বাচ্ছন্দ বোধ করিয়া থাকে-যাহা প্রকল্প বহির্ভূত পরিবারসমূহে প্রাপ্ত পরিসংখ্যানের চাইতে উল্লেখযোগ্যভাবে উচ্চতর (t<sub>.01</sub>=3.4 with 12 d.f.)। এছাড়াও প্রকল্প বহির্ভূত পরিবারসমূহে প্রাপ্ত পরিসংখ্যানের চাইতে উল্লেখযোগ্যভাবে উচ্চতর (t<sub>.01</sub>=3.4 with 12 d.f.)। এছাড়াও প্রকল্পাধীন পরিবারের শতকরা ৭০ জন দম্পতি তাহাদের দৈনন্দিন বিষয়াদিতে যৌথভাবে সিদ্ধান্ত গ্রহণ করে যাহা প্রকল্পে বাহিরে মাত্র ৩৭ জন দম্পতি করে থাকে। এক্ষেত্রেও ব্যবধানটি উল্লেখযোগ্য (X<sup>2</sup><sub>.01</sub> = 6.7 with 1 d.f.)। অধিকন্তু, প্রকল্প এলাকায় যোখানে শতকরা ৪৭ ভাগ বসতঘরে টিনের ছাউনি সেখানে প্রকল্প বহির্ভূত এলাকায় মাত্র ১৬ ভাগ টিনের ছাউনি পাওয়া যায়। উপসংহারে বলা যায়, পুনর্বাসিত ভূমিহীন পরিবারসমূহের মধ্যে ১.৬ হেক্টর খাস জমি প্রদানের ফলে তাহাদের আর্থ-সামাজিক অবস্থার প্রভূত উন্নুতি সাধিত হইয়াছে। আরো বলা যায়, প্রদন্ত জমির মালিকানা পুনর্বাসিত পরিবারগুলিকে অধিকতর আয়ের উৎসসহ জীবনযাপনের অন্যান্য বিষয়ে উৎসাহিত করে এবং প্রকারান্তরে পুনর্বাসিত দরিদ্র মহিলাদের আর্থ-সামাজিক অবস্থার উৎ্বসহ জীবনযাপনের অন্যান্য বিষয়ে ড

Key words: Community Forestry Project, Rural poor women, Women employment and Socio-economics.

### Introduction

Women in Bangladesh are generally disadvantaged in terms of social status and security. In fact, majority of the women population are under-privileged, poor and illiterate who bear the testimony to poverty and ignorance. Statistics shows that 49% of the total populations of Bangladesh are women of whom nearly 86% live in the rural areas (Anon 1998). There has been increasing awareness and concern about women's issues in Bangladesh during the recent past. While such concerns may be expressed in various areas, such as women's role in the family, contribution to national wealth and legal rights of women, it is generally accepted that the long term prospects of women standing in the society depend much on the extent of their participation in workforce (Chaudhuri 1991).

Social forestry has been an important issue in the global forestry concept for a long time. The People's Republic of Bangladesh has been emphasizing on this issue since 1980's. A number of Community Forestry Projects were undertaken by the Forest Department and Non-Government Organizations (NGOs). The Pomra Community Forestry Project is one of those under the Government entrepreneurship. According to Rahman (1987a), the project was initiated in 1980 in the protected hilly forest land at Pomra village under Rangunia thana of Chittagong district for the socio-economic upliftment of the landless rural people.

The Pomra village is about 24km away from the Chittagong City beside Chittagong-Kaptai road. One hundred and forty four landless families were rehabilitated in the project by allotting 1.6 ha denuded hills to each family. The project was mainly aimed at achieving three goals: 1) to regenerate denuded hills by planting trees, 2) to rehabilitate the landless peasants and 3) to protect the forest from the illegal felling with the help of the settlers (Quddus *et al.* 1992).

Most of the reports so far made on the project focused on the overall situation of the rehabilitated families are discussed as follows. Rahman (1987a) and Quddus *et al.* (1992) reported that Pomra Community Forestry Project offered a landuse model by depicting a way of utilizing the encroached and denuded hills through rehabilitating 126 landless families (which later increased to 144) in the Protected Forest land. The crops, the cropping pattern and the way of their participation combined together turned up to be a technology in itself, they added.

According to a preliminary survey on 24 sample families conducted by Rahman (1987a), it was found that the socio-economic status of the landless families after rehabilitation had improved considerably. Their present income had become more than three times higher than the previous income. The land productivity had also improved substantially compared to other land management alternatives. The Land expectation (Le) value per hectare of the project plots had risen to more than Tk 43,000 compared to Tk 6,600 and Tk 4,000 in the case of Lease Over Plots and vacant Protected Forest Plots. The Product of the Project such as sun-grass, fuelwood, fruits and vegetables were socially desirable and the activities were also economically feasible. The output-input ratio was more than three and IRR was 90%.

Rahman (1987a) also described that the project has generated not only employment opportunities but also helped to develop better growing stock of forest species. The average number of fruit trees and forest trees per hectare were 338 and 140 respectively. The author also cited that in spite of this success, the project is confronted with the problems of internal inconsistency, community instability, lack of ideal cropping pattern, insufficient socio-economic infrastructure and improper market mechanism. The better and earlier these problems are solved, the greater would be the economic benefit of landless masses and the nation as a whole, he added.

Quddus *et al.* (1992) in a case studies on 15 settlers of Pomora (CFP) shows a similar and also a little different picture. According to them, Pomra settlers also grow short-rotation crops (vegetables) like kakrol, cucumber, garden bean, lady's-finger and zinger as the major crops where kakrol and zinger rank top among all crops. The average income per family from short-rotation crops in Pomra amounts to Tk. 25,400 varying from the Tk. 3,300 to 83,000. It shows that the post-settlement mean monthly family income of Pomra settlers has increased about two times from their pre-settlement value i.e., from Tk.1,373 to 2,814. It was also mentioned that the difference between pre and post-settlement mean monthly family incomes was found statistically significant at a very high level.

Quddus *et al.* (1992) also shows that the average number of family members in Pomra is 7.3 where on an average, each family has 2.3 male and 1.5 female adult labourers ; and 0.7 male and 1.2 female child labourers. The literacy rates of male and female respondents are 41.4% and 14.1% respectively. An important change has also taken place in the literacy rate of the settlers children showing the percentage of literacy of the first sons (66.3%) almost double than that of their fathers (41.4%) where the first daughters, the change is even much higher than that of the sons; than three times (36.4%) that of their mothers (14.1%).

While discussing the subjective assessment of social status change in Pomra and Betagi, Quddus et al. (1992) also cited some interesting findings. When asked about the attitudes of their neighbours toward them, the opinions of the male settlers are found considerably divided. About half of the male settlers confessed that their neighbours (i. e., people outside the settlements) still consider them inferior in status. But about three fourths of the women settlers believe that people outside the settlements regard them as of a higher status than before. On the other hand, when asked on the impact of settlement on the decision-making role of women, it was found that proportionately the wives of Betagi seem to have greater freedom than those of Pomra in production and selling the products.

The above reports give an overall socioeconomic picture of the families rehabilitated under the Pomra & Betagi Community Forestry Projects reflecting their pre and post condition. The present study was therefore undertaken during 1999 on the Pomra Community Forestry Project (CFP) to investigate the socio-economic upliftment of the women community in particular, compared to their neighbour outside the project area. It was aimed to compare the total population of the sample families, male and female distribution, working force, female literacy, sources of income, change in attitudes & mobility of women, sharing in decisionmaking, and house types of the rehabilitated families in the project area with those living in the adjacent villages outside the project area.

## Materials and Methods

The study was conducted through a simple random sampling where Pomra village was selected for the purpose. Thirty households out of 144 of the Project area (CFP) and 30 households that have 0.01 to 0.50 hectare land area in the adjacent village of Pomra (Non-CFP) were considered for the survey. To assess the status of the rehabilitated families and the women in the

project area as well as in the adjacent villages data were collected by personal interviews during June, 1999. Information about family members, working force, literacy, income of the family, attitudes & mobility, sharing in decision-making and house types, etc. of the CFP & Non-CFP families were collected. The results are presented in four different Tables.

#### **Results and Discussion**

Table 1 shows the male and the female population distribution of the 30 sample families each under CFP and Non-CFP areas. It shows an equal sex ratio (55:45) in both the study areas. There were 101 (55%) male and 83 (45%) female members in the CFP while in the Non-CFP areas they were 99 (55%) and 81 (45%). The average members per family in the CFP and Non-CFP were found to be 6.1 and 6.0 respectively. The male and female regular working force in the CFP were 34% and 27% while in the Non-CFP areas 38% and 17% men and women respectively work as regular workforce. On the other hand, 2% male and 2% female members were found to work casually in the CFP whereas 4% men and 18% women found in the Non-CFP areas.

CFP /	Infant		Student		Regular workforce		Irregular / Casual workforce		Total		Grand Total
Non-CFP	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male + Female
<u>_CFP</u>	6	6	29	24	63	49	3	4	101	83	184
Number(%)	(3)	(3)	(16)	(13)	(34)	(27)	(2)	(2)	(55)	(45)	(100)
Mean/family	0.2	0.2	0.9	0.8	2.1	1.6	0.1	0.1	3.4	2.8	6.1
(SE)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.2)	(0.2)	(0.3)
<u>Non-CFP</u>	7	8	17	9	68	31	7	33	99	81	180
Number(%)	(4)	(5)	(9)	(5)	(38)	(17)	(4)	(18)	(55)	(45)	(100)
Mean/family	0.2	0.3	0.6	0.3	2.3	1.0	0.2	1.1	3.3	2.7	6.0
(SE)	(0.1)	(0.1)	(0.1)	(0.1)	(0.2)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.2)

 Table 1. Population distribution of the members of 30 families sampled into working category & sex under CFP and Non-CFP (1999).

It shows that there were 1.6 and 0.1 women per family work respectively as regular and casual workforce in the CFP while in the Non-CFP they were only 1.0 and 1.1. The results also show that the 29% women in the CFP and 35% in the NonCFP families have significant contribution in the socio-economics of the community. The contribution of these regular and casual female workforce in the two areas have also been calculated to be 43.6% and 45.7% respectively.

Literacy	Ma	ale	Female		
Literacy	CFP	Non-CFP	CFP	Non-CFP	
Can read & write	71(70%)	43(43%)	55(66%)	30(37%)	
Cannot read & write	30(30%)	56(57%)	28(34%)	51(63%)	
Total(%)	101(100)	99(100)	83(100)	81(100)	

Table 2 shows the literacy rates (%) of the male and female population under CFP and Non-CFP areas. The minimum literacy was considered based on the people's aptitude who can read and write. It reveals that 70% male under CFP have been found to be literate while in the Non-CFP it is 43%. Similarly 66% of the female are literate in the CFP whereas only 37% are literate in the Non-CFP areas. The above statistics shows that the literacy percentage of both the male and female populations in the CFP are significantly higher than in the Non-CFP areas.

Table 3. Net annual income per family and the contribution of female members of 30 sample families under CFP & Non-CFP (1999).

	Net annual income per family (in Tk.)					
Item	CF	P	Non-CFP			
	Total	Female	Total	Female		
Short rotation crops (vegetables)	7530.00	3282.00	788.00	360.00		
Horticultural plants (fruits)	9885.00	4309.00	1843.00	841.00		
Sungrass & Fuelwood	2530.00	1103.00	630.00	288.00		
Livestocks	695.00	303.00	347.00	158.00		
Mean / family	20,640.00	8997.00	3,608.00	1,647.00		
(SE)	(1021.00)	(445.00)	(213.00)	(99.00)		

Table 3 shows the net annual income and its sources in the respondent families from their homestead and farmland. The income of the families under CFP comes from short, medium and long rotation crops like vegetables, fruits, sungrass, fuelwood, etc. and livestock resources like milk, goats, hens, eggs, etc. The average family income

has been found to be Tk. 20,640.00 (SE = Tk. 1,021.00) in the CFP areas. Again, the income of the Non-CFP families also come from vegetables, fruits, sungrass, fuelwood, milk, goats, hens, eggs, etc. from their small holdings of the homesteads. The average income of these families is found to be Tk. 3,608.00 (SE = Tk 213.00) from their

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homesteads. The contribution of the female workforce in the CFP and Non-CFP areas have been calculated to be Tk. 8,997.00 (SE = Tk. 445.00) and Tk. 1,647.00 (SE = Tk. 99.00) respectively and shown in table. It reveals that the average annual income in the CFP families is 5 to 6 times higher

than in the Non-CFP families. But it was also observed that although the incomes of the CFP families were higher than those in the Non-CFP areas, yet the CFP families have to work outside their homesteads for their livelihoods.

Attitudes (Mehility	'Yes' in CFP	'Yes' in Non-CFP	
Attitudes / Mobility	No. of women	No. of women	
1. Willing to talk/meet to stranger/visitor	21 (70%)	16 (53%)	
2. Conscious about health	16 (53%)	6 (20%)	
3. Willing to work in agriculture/horticulture field	24 (80%)	18 (60%)	
4. Willing to do provisional jobs	24 (80%)	18 (60%)	
5. Willing to attend professional trainings	22 (73%)	12 (40%)	
6. Willing to attend meetings	18 (60%)	10 (33%)	
7. Willing to go bazar alone	21 (70%)	16 (53%)	
Average	21 (69%)	14 (46%)	

Table 4.	Attitudes and mobilit	y of 30 sample women in both	CFP & Non-CFP conditions (1999).
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Table 4 shows the attitudes and mobility of the 30 women, one from each family, under CFP and Non-CFP conditions that reflect the social status of the rehabilitated families compared to their neighbours. As regards to CFP, women are more exposed to various conditions, such as liberal to meet or talk to strangers/visitors (70%), conscious about health (53%), work in agricultural/ horticultural fields (80%), willing to do provisional jobs (80%), eager to attend professional trainings (73%) and also go to the bazar herselves (70%) than in the Non-CFP condition. The difference is statistically significant (t. $_{01}$ =3.4 with 12 d.f.). It reveals that the institutional intervention through CFP induced women to move freely, talk to people, have better health care, receive professional trainings, live in better houses, etc. and also to generate employment opportunities for their subsistence.

Besides, the data collected from the study area also reflect that about 70% couples in CFP

jointly take decisions on agricultural/horticultural productions, sales, consumptions and other activities while in the Non-CFP only 37% couples jointly decide their matters. This difference is also statistically significant ( $\chi^2_{01}$ =6.7 with 1 d.f.). It was observed that in the CFP, about 47% and 53% families have respectively tin roofs and sungrass roofs with earth/bamboo walls while in the Non-CFP areas the tin-roofs and the sungrass roofs are found to be 16% and 84% with similar walls. It was also found that the males in the CFP work in the vegetables and fruits gardens for 6-10 hours while the males in Non-CFP areas work for at least 3-6 hours. On the other hand, when the females in the CFP work in the vegetables and fruits gardens for 3-5 hours, the females in Non-CFP areas work only for 1-3 hours in their homestead. It was also reported that although the incomes of the CFP families are 5-6 times higher than in the Non-CFP families, yet these are not enough to meet up the necessity of the families for which they have also to work outside the project area for their subsistence. This findings coincides the finding of Khan (1998). The author cited that 54, 68 and 62 percent farmers in Betagi, Pomra and Chandra respectively were in deficit in meeting their household expenditure during 1993.

## Conclusion

There is a direct impact of the Pomra CFP on the socio-economics of the rehabilitated families and subsequently the upliftment of the rural poor women. It shows higher female literacy rates in the CFP (66% compared 37%) and more participation in economic activities (1.6 compared to 1.0 per family) than in Non-CFP areas. About 70% women in CFP enjoy the right of decision-making in their family matters compared to only 37% women in the Non-CFP families. On the other hand, 47% houses in the CFP have tin-roofs where only 16% houses of Non-CFP families have similar roofs. While the women in CFP work for 3–5 hours in vegetables and fruits gardens, the women in Non-CFP areas work for only 1–3 hours. Moreover, the seven different parameters (Table-4) on the attitudes and mobility of the women in the CFP also show higher performances (70%, 53%, 80%, 80%, 73%, 60%, and 70%) with significant

difference (t. $_{01}$ =3.4 with 12 d.f.) from the Non-CFP families.

All these findings reflect that the ownership of the land and the higher income of the rehabilitated families leaded them to read and write, change in attitudes & mobility, share in decision-making, make better houses and also attract them to other employment opportunities in the CFP which resulted the overall socio-economic upliftment of the poor women compared to the adjacent Non-CFP areas. Rahman (1987) also found that the Betagi Community Forestry model has turned to be a technology itself where the model was efficient to accelerate the land productivity substantially and also suggested that if this type of project were initiated in the denuded Unclassed State Forests and unproductive hilly khas lands, it would open up employment opportunities for the landless people and gear up the production of food, fuel, timber and other forest produces. Thus the findings from Pomra as well as Betagi and the acquired knowledge out of the CFPs may be practised in other parts of the country which will enhance the overall socio-economic condition of the under privileged rural women, and develop the total community as a whole.

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