

Agricultural Intervention of NGOs and its impact on Women in Char towards Economic Empowerment

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ABSTRACT: The study intends to explore char women's experience and coping up strategies in agriculture through private sector interventions and its impact on different aspects of their socio economic position that leads them to empowerment spiral. This study is qualitative in nature and designed targeting char households which were benefitted by different NGO interventions in four char villages of Bogra and Gaibandha districts of Bangladesh. Result shows female farmer focused NGO interventions in agricultural sector in Char areas have increased their access to new knowledge and technologies of modern cultivation know-how, maintain better quality and quantity of yield, dealing with market actors and selling or preserving quality products through these interventions that consequently increased their overall income. As a result of increased monetary contribution in the family they could exercise more decision making authority, control over own income and household expenditure, better status in family and society, freedom of opinion and mobility which have made them feel more confident and empowered. Female farmers realized that increased income brought change in their lives in terms of better food, clothing, child education and health and upgraded their socio economic status.

Keywords: Char, Char Agriculture, Female Farmer, NGO activities, Women Empowerment

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I. Introduction

Women's participation in agriculture is not new but in case of value and recognition of their work 'Gender', that is socially constructed relations between men and women, is a shaping element of involvement and contribution of women in existing agricultural systems and a determining factor to attribute value and recognition in ongoing agricultural restructuring (E. Sraboni et al. 2014) [1]. The female contribution to the overall economy, particularly in agriculture is high throughout Asia. Bangladesh, Bhutan, Cambodia, China, India, Myanmar, Nepal, Pakistan and Vietnam have particularly high percentages of women employed in the agricultural sector, with estimates ranging between 60 and 98 percent (FAO, 2003) [2]. Rahman (2010) [3] shows that female agricultural labor contributes significantly to productivity as well as technical efficiency, but finds, similar to Zaman (1995) [4], that gender bias exists in the agricultural labor market. Remunerative employment of labor remains skewed in favor of men, since female labor is engaged mostly when the male labor supply is exhausted. In many parts of Bangladesh, agriculture is the main occupation of women especially in the char land women's involvement in agriculture is higher than mainland due to context, geographical, livelihood opportunity and economic condition Zaman, 2002[5]. The gender scenario of char condition is not significantly different than others geographic area, even worse to some extent. Patriarchal societal and cultural norms that are prevalent in chars have impacts on women's development, their status in society and on their empowerment too (Haneef, C. et. al. 2014) [6]. Women have been contributing significantly through their agricultural and household works; however, their efforts do not get reflected in the official statistics. Not only that, women have to work under harsh condition defying social, religious barriers and discriminations (Zaman, 2002) [5]. Due to geographical difference and poor markets system char female farmers face more constraints than mainland farmers. Female farmer deprived of any facilities that are retained for farmers/ agriculture sector as they do not get recognized as Formal farmer (S. Alkire, et al 2013) [7].

Therefore, women participation, particularly in agriculture as entrepreneurs is increasing in Bangladesh (Hossain and Jaim 2011; Birner, R., A. Quisumbing, and N. Ahmed 2010; etc) [8, 9]. The progress is attributed to poverty, empowerment of women by NGOs, and migration of male members from agriculture to non-farm occupation. In the absence of male members, women's role is changing from unpaid family worker to farm managers, a phenomenon termed as "feminization of agriculture" (Jaim & Hossain, 2011) [10]. Women from poor and extreme poor households living on the char are usually engaged as paid labour. They are also engaged in farm and few off-farm activities which earns very little due to lack of market linkage and technical skills.

Many NGOs are now working in chars through different projects shifting their approach from asset transfer to agriculture and market development and capacity and network building so the target people can change their lives by themselves which ensures much more sustainable development in chars.

This study tried to capture effort of NGOs to bring women's contribution and involvement in agriculture in front table to recognize their role and contribution in agriculture and creating new scope in agriculture that can ultimately help them to be economically and socially empowered. The research was conducted in a manner that will help to understand women's perceptions regarding the changes in perceived roles and level of empowerment within their households and the community.

1.1 NGOs Interventions and Char People: Development Projects implemented by NGOs in char areas

Many NGOs working in Char areas with special focus for many years, aiming to improve the market systems for the poor people to reduce poverty and vulnerability in Northern and North Western Bangladesh, thus opening up new opportunities for income generation. They also focus on women while designing and implementing projects to create new opportunities for them to achieve Economic Empowerment. As part of gender mainstreaming in all sectors, private organizations attempt to strengthen women's role into the selected sectors and at the same time ensure empowerment of women by bringing them to the fore-front through strategies and activities. This paper solely selected the interventions of the NGOs who are implementing Market Development projects in Agricultural sector following M4P (Making Market work for Poor) approach. The following activities are common prime interventions of Market Development projects implemented by several NGOs in Chars.

These are

- Increase access to quality inputs and services in Chars
- Introduce improved cultivation know-how and Char suitable technology
- Promoting improved postharvest practices through better market linkage
- Farmers Meeting for Producer Group (PG) farmers & non Producer Group farmers
- Demonstration plot (Demo Plot) by Female farmers, conduct Field day and identify best practice
- Strengthen network and communication between Market actors and Char Farmers

1.2 Rational of the study

This study captured efforts of NGOs to make women's contribution and involvement in agriculture more evident by motivating partners (input companies) to select women as demo farmers for their products and actively involved in all activities of project in study areas. To achieve empowerment of women there is no other option than being economically independent for women. Women are already involved in agriculture but there are few challenges that are hindering their path of empowerment. Women have poor market linkage and network, less recognition and value as farmer and most importantly gender barriers to gain recognition as well as economic Empowerment. In addition to these factors NGOs had the following reasons for pointing special focus on female farmers to engage in different levels of activities of projects:

- Women are more actively involved in agricultural work compared to main land women. In any NGO intervention activities like farmers meeting, training session etc. it is found that females can remember more information and their response is better than men. They can recall the brand name, usage information of inputs, practices and other learnt issues better compared to men.
- Men migrate frequently during the season hence women tend to manage the fields mostly and
- As the demo plots are selected at road sides or close to home, it is easier for a woman to take care or maintain agricultural work along with household activities.
- A major reason was to set an example and motivate other potential women on the chars to take charge of agricultural fields to the extent possible which will further crowd-in more women in an economic role.

1.3 Objective of the research

Broader Objective:

To understand qualitative changes in women's economic empowerment in the chars as an impact of the NGO interventions in agriculture in the specific study areas.

The specific objectives of this assessment was to understand the following changes as a result of NGO activities-

1. Measure the changes on different aspects of women's life as female farmer and their new role in agriculture
2. Women's economic empowerment in relation to different factors like income, decision making, access to resources, role in family & society etc.
3. Impact on Market system and Market actors of Chars especially on business strategy and networking.

II. CONCEPTUAL DEVELOPMENT

2.1 Char

The *char* lands are temporary pieces of land rising on riverbeds in the plains, particularly in the deltaic parts (K. Lahiri-Dutt & G. Samanta, 2004) [11]. Char is a tract of land surrounded by the waters of an ocean, sea, lake or stream or pieces of land resulting from the accretion of silt in river channels. Chars are the areas of new lands formed through the continual process of erosion and deposition in the major rivers and coastal areas of Bangladesh. (S. Al-Amin et al. 2011) [12]. Chars have an average life of 30 years. Many of these *chars* are shifting, temporary and flood-prone, but some get stabilized with time although their legal status as “land” still remains contested. So although the islands are known for their fertile soil, the temporary nature of the islands results in vulnerability for the families that depend on them for their livelihoods. With little or no resources, the *choura* (*local word used to indicate the char inhabitant*) women undergo a long and hard struggle for survival in this land of high vulnerability. They face additional challenges like communication and transport difficulties, unavailability of services (Health, social, agricultural etc.), extreme weather and disaster proneness, poor market linkage, unavailability of communication media etc. (S. Rahman and J. Davis, 2005) [13]

2.2 Women in Chars

Though gender disparity scenario of mainland women is homogenous in nature, char women condition and vulnerability are more than mainland women due to living in separated area surrounded by water. Women in char areas, likely to mainland women, have lack of opportunity to access education, health and other basic rights, unequal access and control of resources, unequal power relationship, poor communication and transportation system and meager skill to be engaged with income generating activities. Women on the Chars are especially vulnerable due to the conflicting constraints of socio-cultural norms including restricted mobility and the seasonal migration of male member to the mainland compel women to take charge of both productive farm work and reproductive household tasks. However, since men are the landowners, women’s role is often reduced to unpaid labor in agriculture and household, with little in the way of external support, services, information or market access. They are playing vital role in household level as well as community level. They manage family economy, responsibility of child care, health & education of children, asset generation, capital formation and other social issues.

2.3 Women in agriculture

Women account for 43% of the agricultural labor force in developing countries (FAO, 2011a) [14]; yet considerable gender bias exists in the agricultural sector, both in terms of quantities of assets, agricultural inputs and resources that women control (Agarwal, 1994, Deere, Oduro, Swaminathan, & Doss, 2013, Peterman, Behrman, & Quisumbing, 2010), [15,16, 17] as well as returns to those inputs (Kilic, Palacios-Lopez, & Goldstein, 2013) [18]. Similar to the recognition of women’s contribution to agriculture worldwide, women’s role in Bangladeshi agriculture tends to be underappreciated, owing to the commonly held view that women are not involved in agricultural production, especially outside the homestead, because of cultural norms that value female seclusion and undervalue female labor (Kabeer, 1994; Rahman, 2000) [19,20]. Nevertheless, participation of women in the agricultural sector has increased over time (Asaduzzaman, 2010) [21] citing Bangladesh Bureau of Statistics, various years). During 1999–2000 and 2005–06, the number of employed persons in agriculture increased from 19.99 to 22.93 million—about 15%. For male labor, there has been an absolute decrease of about 6%, while for females the number has increased from 3.76 to 7.71 million—that is, by more than 100%. As a result of such changes, the proportion of women in the agricultural labor force has increased from less than 20% to 33.6% of the total. This is indeed a phenomenal change, although it is not yet clear how much of this change resulted from a true secular increase as opposed to better measurement of women’s participation.

2.4 Women Empowerment

Empowerment is a complex concept. It is a process which is context specific and, feelings of empowerment are situation and time-specific. It is also multi-dimensional, being psychological, economic, social and political in nature. Women may feel empowered in one area of their life but not in another. A person’s empowerment will be affected by both internal and external factors. Internal factors are largely related to a woman’s ability to exercise agency. Agency can be defined as, “Women’s ability to make decisions and affect outcomes of importance to themselves and their families or women’s control over their lives and over resources.” External factors that can impact women’s empowerment relate to: the perceptions, attitudes and behaviors of their husband and community; women’s opportunities and constraints; social, economic and cultural changes; and policies and laws that determine a woman’s political and economic environment (D. Santillan, S. R. Schuler et al. 2004) [22].

Current efforts to define and measure empowerment have drawn heavily on Kabeer's (1999) [23] definition of empowerment as expanding people's ability to make strategic life choices, particularly in contexts in which this ability had been denied to them. In Kabeer's definition, the ability to exercise choice encompasses three dimensions: resources, agency, and achievements (well-being outcomes).

Previous researchers have found different indicators seen to contribute to women's agency. Examples from one study include: women's engagement in paid work outside the home; involvement in major household (HH) decisions, including raising livestock for profit and the leasing or buying of land and other investments; the management of family assets; and mobility, which refers to a woman's ability to go outside of the home if she desires (S.R. Schuler, & E. Rottach, 2010) [24] Husbands' attitude can play a large role in either encouraging or creating barriers for empowerment: husbands who are particularly patriarchal or controlling often limit women in making choices that will contribute to their feelings of empowerment (Dr. Savneet, 2013) [25]

III. METHODOLOGY OF THE STUDY

The assessment was designed targeting char households which were benefitted by different projects of various NGOs working in study areas. The female members of the beneficiary households were taken as respondents of this assessment. The study focused on 6 major areas of Women's Economic Empowerment. These are-

- Changes related to increases in income and spending**—it has two sides,
 - How increase in HH income results in WEE (in case of unpaid female labors from family)
 - How female paid labors benefitted in terms of WEE as a result of being employed by projects
- Changes related to women's and men's roles** – if there is a change in roles of female members whether it empowers them (female members) or not?
- Changes related to women's decision-making** - in agricultural sectors and family issues – how much more decision can the female members make than before? Does attending different NGO activities & programs made the female members knowledgeable in cultivation and post-harvest?
Is it helpful to make more decision?
- Changes related to access to opportunities and resources** – do the female members have more access to income generating opportunities or resources for income generation?
- Changes in Male Attitudes and society**- perception of Male family member and society people
- Changes related to Workload** – Assess level of workload and monitor if it is becoming burdensome due to addition of economic activities
- Women's Mobility**- Movement freedom of women, their access to market or other areas in chars

Tools and Materials:

To address the above mentioned issues in-depth face to face interviews, survey method and Focus Group Discussion

(FGD) were used for data collection. The tools mainly focused on collecting qualitative information. In addition, some specific quantitative data was also collected by survey to support qualitative information. Questionnaire and Checklist were used as the main assessment tools to gather the data from the respondents. The semi structured printed Questionnaires were used to collect data through in-depth interviews and Survey method and Checklist was followed to collect information through FGD. The analyzed result is tried to validate by the result of FGD. For this report peroration and analysis Microsoft Office software was used.

Total 75 respondent, both female and male farmers from 2 districts have been participated in this research. For this assessment purposive sampling has been used to collect data. The distribution of respondents as follows, In-depth interview of 15 person (10 female and 5 male respondents), 3 Focus Group discussions (2 female groups and 1 male group) and Survey Questionnaire of 30 respondents.

This study was conducted 4 char villages of 2 districts Bogra and Gaibandha; two villages from each district these are Hatsherpur village and Aucharpara village of Bogra; Komorpur and Fulchori village of Gaibandha district. Women who are involved in farming as well as are beneficiary of different NGO interventions in two districts are target population for this study. For this assessment data was collected from the following selected group of respondents-

1. Female family members of the beneficiary households that got better income from project activities. It also included unpaid female labor category.
2. Female producer – female contract farmers, farm and off-farm activities of projects
3. Paid female labor – both in cultivation stage and post-harvest stages.
4. Male family member of Female producers
5. Male member of study village

To assess men's perception Male member of family and neighborhood or village people of intervene area are also target population of this study. Male respondents also purposively selected for in depth interview (Husband of Female demo farmer/ villagers) to know their perception and bring gender stance to the research.

Limitation of the Study

Following issues are some of the limitations that are likely to affect the findings of the study:

- The context of char is a limitation itself for conducting such assessments primarily due to the remoteness. From field observation it was found that the average distance from char ghat (boat landing station) to a house is of one hour walk. The nearest respondents living in the chars that could be reached by boat takes at least half an hour from mainland and the remote char takes 4 times more to reach from the mainland ghat.
- There was no baseline information of the respondents hence survey tools included questions to capture pre and post intervention status.
- Poor communication system of chars made study difficult, because researcher had to return mainland before dark due to remoteness, lack of accommodation and security issues.
- Time matching between researcher and respondents was a great difficulty of the study. During day time women are very busy doing household and agricultural activities, so it is very difficult to contact, manage and collect respondents for data collection especially for FGD.

IV. RESULT ANALYSIS:

4.1 Recognition and Social acceptance of Woman as Farmer

Since invention of agriculture, women are involved in cultivation intensively but generally they are not recognized as farmer in traditional male dominated society. Women do more than 90% of post harvesting work but they do not get the value of their work compare to men. But during demo plot saw that women are handling the responsibilities of cultivation as formal farmer. They did weeding, seed sowing, cultivation, irrigation and other activities along with other farmers. Thus social acceptance of female farmers in their own community has been increased due to participating in demo plot. At first people were unaware about female as responsible farmer. Most of the cases people seek information from her husband not to her although she is selected individual as demo farmer. But now community is accepting female as farmer and also appreciating them for their good work and wise decision. Respondents said that others farmers seek information from them that never happened before. Male partners of female demo farmers also appreciate their wife and respect their advice and information that they know from yard meetings, learning session, field day and others activities done by NGOs in chars.

4.2 Changes Related to Increase in Income and Spending

The NGOs projects' interventions were aimed at increasing income of char households through enhancing the knowledge and practice of farmers to achieve better productivity and efficiency in the agricultural value chains, and by skills development for one non-agricultural sector-handicraft. As an impact of the projects positive changes are expected at the beneficiary or the producer level once the activities under the interventions are completed. Due to having access to quality inputs, knowledge on cultivation and post-harvest techniques, yield has been to increase that resulted in more income to the HH.

In addition better market linkage gave opportunity to negotiate for better price of the produce. This particular assessment tried to understand the changes occurred in the level of empowerment for the women members of the family, who are engaged as paid/ unpaid labor or producer, as a result of the increase in income of the households due to the interventions.

About 74% women from producer groups realized that their HH income had increased which influenced their livelihood positively. They also claimed their contribution especially in post-harvest practices (chili plucking, drying, ridding etc.) contributed to the increase in income. The increase income brought change in their lives in terms of better feeding, clothing, child education and health. All (74%) of them said that they are now having good food 3 times a day, spending on cloth for family members children's education fees, reading materials, especially for girl child, better treatment for children and women themselves and repaying loans on time.

In comparison to the unpaid labors, the paid labors that are sourcing income from agricultural and non - agricultural sectors have the opportunity to directly contribute to household income in terms of monetary contribution. This contribution made them confident on valuing themselves, their individual skill/ capacity, self-entitlement etc. They also feel free compared to previous situation to spend their income for any need such as buying something for family or herself, contribute to family expenditure or children's education etc.

Maheda Begum said that: *"My husband and other farmers of this village cultivate maize every year. Generally they get 20 to 25 mounds sometimes they face loss after paying production cost. But I have got 45 mounds maize this season and made 4000 BDT profit from my demo plot. I have got good price of my yields*

because of good quality of my yields. Input company taught me how to get more yields and maintain quality of maize to get better price.”

4.3 Participation in decision making process in Agriculture

Few NGOs facilitated special interventions to integrate women in all activities which have had been implemented by partners and sub-contractors such as yard meetings, cultivation know how trainings and demonstration plots. In some cases they ensured by their policies that the partners include at least 20% women participants in all their activities. Female demo farmer's decision making power has experienced changes over time. Now they are not taking decision independently about all matters but they have started to express their own opinion in agricultural and family matters. Female farmers now gradually started to participate in decision making regarding choice of seed selection, fertilizer, time of irrigation and others agricultural works. In case of female farmer who cultivates Chili they have learned seedling system, seed treatment, selection and identification of Chili plant for seed collection, seed preservation for next cultivation etc. from different NGOs. This information and trainings have increased their level of knowledge and confidence and helped them to take decision in cultivating chili in large scale independently as female farmer. The total profit of demo farming is kept to husband but both husband and wife spend it by mutual decision whether they will spend money for household expense or for next cultivation. Thus their scope of taking part in family decision making process will be enhanced that will gradually lead them to the empowerment spiral. Although most of the time men finalize or take major decisions regarding agriculture and family matters, now men have started to seek female farmers' opinion and advice as they are trained and have orientation with new cultivation methods.

4.4 Participation in decision making process in Household

It was expected that different women focused activities by NGOs will potentially contribute to enhance women's decision making in agricultural practices as well as household issues. All women respondents also mentioned that due to the improved learning and change in behavior they became capable and confident to engage in household decision making, e.g. convince their husband to buy tarpaulin/ polythine (which was prescribed by one NGO to use to get more quality product) for drying and storing crops to get good price, to buy quality seeds related to maize, chili and jute cultivation.

In general about 40% women perceived that their role in decision making on family spending has changed and they were spontaneously vocal about the change during the interview process. About 50% of the remaining are more or less involved in family decision making process but they were not very vocal or confident about their perceived role. About 10% women do not participate in household decision making process. During the interview it was also found that in some particular matters women took decision herself, such as spending money for children, for food however, during discussion respondents mentioned that they feel more confident if they consult with their husband prior to spending money. In addition they mentioned that they are also informed about their husband's expenditure.

By compiling the assessment results it was found that the overall participation in decision making, as per the respondents is-

- About 70% women are always involved in joint decision making with their male counterparts on household spending like purchasing daily necessities, children education and health related issues,
- Around 20% are sometimes involved, and
- 10% do not take part in decision making as their husbands solely make the decisions.

It must be mentioned here that the sole attribution of the above results of project activities is difficult to measure, but the results reflect how the women perceived their roles has changed before and after the interventions. The situation of women in household as well as agriculture, was not same prior to NGO activities in Char areas, is seeing positive response by the society where NGOs have great contribution.

4.5 Access to new knowledge and technology

According to respondents Women have got the access to new knowledge, information, cultivation method and technology just being the participants of training and learning sessions of NGOs and agricultural input companies. Women are more knowledgeable about which brand's seed they have used, variety of seed quality, use of fertilizer, crops collection, modern drying and preservation techniques etc. So now they can get more and better quality of yields and get more profit.

From the assessment it was found that about 75% of the respondents got opportunity to attend meetings on maize, chili, jute which was first time training for almost all of them. As mentioned in the above section, all these women learned new things on proper cultivation techniques, quality inputs, use of tarpaulin, seed treatment, and improved jute retting techniques that brought behavioral change which resulted in higher yield/

better price leading to more income for the household. Women are exposed to new agricultural technology and methods like modern seedling system, seed treatment, selection and identification of Chili plant for seed collection, seed preservation for next cultivation etc. They also know which brand's seed they have used, variety of seed quality, use of fertilizer, crops collection, modern drying and preservation techniques etc. So now they can get more and better quality of yields and get more profit.

4.6 Women's Access to Opportunities and Resources

From field data it is evident, 75% respondents have enjoyed more opportunities compared to previous year to learn about maize, chili, jute and others crops cultivation that they cultivate in char areas. They learned about appropriate cultivation practices and how to maintain quality of product to get better price. Such opportunities have impact on their livelihood in different ways. The agricultural projects of NGOs established and facilitated market linkage development with private/ public actors, who were never interested to come in char areas to expand their business; as a result of which women now have more access to information, quality inputs and skills which helped them to improve their livelihood and achieve empowerment as well.

Women are now able to be engaged in income generating activities more intensively which has provided the women with the opportunity to save additional income for future. From the assessment it was found that about 60% households got the opportunity this year to invest additional income of last year in chili or other crops and about 20% women reported that they had increased opportunities to access resources like drying materials or modern tools.

They could contact with company person as result of networking established by NGO activity to take advice on crop or any hazard occurred. Such access to information and market linkage accelerated their income and confidence too. These opportunities enhanced women's access and control over family resources, agricultural information, equipment and resources as well as status in their family. Quality of crops is improved by participating in learning session on Improved Post-Harvest Technology. They have learned the techniques that are their main resource which would benefit them generation by generation.

4.6 Women's new role and activities in agriculture

Women's participation and role in agricultural sector are changing over time. Women were already involved with agricultural activities but an intervention like demo farming increasing women's active participation as responsible farmer and making decision in agriculture. Char women were mostly involved with chili plucking, weeding, post harvesting, cattle rearing, homestead gardening etc. But now they are more actively taking part in agriculture like selection of crop & plot for cultivation, seed treatment, seed selection, land preparation, weeding, seed sowing, use of fertilizer and insecticide, irrigation, new technique of cultivation, use of modern machineries for post harvesting such as dryer, drying materials, shelling machine etc.

Momtaz Begum (Chili farmer, Hatshepur Village, SariaKandi, Bogra) said about her new role that-

"Generally women do not take part in irrigation. This work is done by men. But as I feel myself as owner of demo I have watered my chili demo plot along with other activities. I also have learned seed treatment and seed plant selection, preservation and different varieties of seed etc. by doing this demo plot."

All the respondents (100%) who were selected as demo farmer as a project activity by different NGOs have said that they have learned many new things from demo farming. These learning will help them lifelong. Male respondents of this study also acknowledged that they and their wife have learned many new issues that they did not know before. They also admit that they have learned from their wife that is different episode of their life. They mentioned they have learned about new technique of better cultivation, quality seed collection, good brand of seed, fertilizer, insecticide etc, information of pick point of these goods, use of proper and balanced fertilizer& insecticide, communicate with right person to collect information and discuss problem etc.

Md. Mokhesur Rahman (Husband of Maheda Begum) referred that- *"I have learned some new technique of Maize cultivation from my wife, varieties of seed, char suitable seed etc. that I never knew and it helped to get a good amount of yields. I am so happy about that."*

About 60% women took up new roles such as seed treatment, provide information to husband to buy quality seed, pesticides, tarpaulin, polythene etc., improved practices in post-harvest activities on maize/ chili/ jute sector due to their confidence and knowledge that have been improved compared to past.

4.7 Change in Male's role & attitude regarding HH activities and agriculture

Female farmers under NGO intervention areas are experiencing that men's attitude are changing towards them seeing good outcome of farming though it is not happening in greater sense but they think it is a positive sign and NGOs have brought this opportunity. Now men pay heed to their information and advice more and brought seed, fertilizer and other necessary things according to suggestion of their wife as it is useful for cultivation and benefiting them too. Gradually men started to ask opinion of wife in agriculture and show more value to their decision. Men referred that women's social value, interest and participation in agriculture,

knowledge of cultivation have increased because of different activities of NGOs in agriculture focusing on female farmers.

Aleya Begum (Demo Farmer, Char Hatsherpur) mentioned her husband helped her a lot doing this demo farming. Previously her husband did not pay much heed to her opinion. He thought women as just helping hand in post harvesting activities in agricultural sector. But now his perception has totally changed. Now he is more eager and sincere to participate in different NGO activities and also encourage her to do so.

Rasel (Neighbour farmer of *Aleya Begum*, Char Hatsherpur) said that-

"I have seen Aleya apa (Chili Farmer) to work in demo plot of a NGO and she confidently managed her demo plot. Aleya apa used some new inputs and cut a good profit. It increased her face value in our village. Now we seek information to her for better yields."

Male respondents of this study believe that joint participation of both male and female is very important to bring a good result in agriculture. Mutual work reduces work load, helps to take right decision and quality utilization of limited time. Thus it becomes easier to fight against poverty.

Ful Miah (Husband of Sabana Begum- a female farmer respondent) expresses his realization saying that:

"My wife has done an appreciable work and I support her efforts. Possibility of good outcome increases when it is done mutually. Women's participation in agriculture is very important to reduce poverty."

4.8 Women's mobility

The life of a woman in Bangladesh is subjugated by a patriarchal social system that controls her mobility, roles and responsibility, and sexuality [Melanie V. Victoria, (2007) [26]. With regard to information, market and other resources; mobility is one major concern in access to opportunities. According to the assessment results, prior to NGO's interventions in char villages women's mobility in intra and inter village were very limited. If required, 30% women could travel to mainland by own, 30% need to be accompanied and 40% could not travel alone. About 80% women need permission to travel anywhere and 20%, who are basically head of the family can decide their own. During the assessment, most respondents discussed that permission on traveling somewhere is mainly influenced by the contextual factors. Char is remote and most of the time the mode of transportation is boat. As per the respondents the lack of mobility is more related with security issue rather than 'permission'. During the interview respondents mentioned that they could travel by their own but feel safe and secured if someone accompany them.

Mobility is one major concern in regards to empowerment. Women now enjoy more freedom of mobility than other time. Due to NGO training, meeting, learning sessions and other activities they now move comparatively more places. Even to look after Demo plot now they independently move from home to plot. To seek agricultural information they also communicate with other people, seed companies, agricultural officer etc.

4.9 Women's Family & Social status & support

Female farmers shared that their family supported in this work because they thought they are doing good work and it will bring positive change in their life. Positive outcome of demo plot has increased family and social status of demo farmer. Female farmer's acceptability in family and community has increased. Now people come to them to know about new information, discuss any problem and ask for their opinion especially in agricultural matter.

Aleya's husband said that:

"I am very happy because of my wife's work people know us more and respect us."

Although it is rare but different situation also happened to some demo farmers whose outcome was not satisfactory. Society appreciates only when good results come and give credit to both male and female. But if outcome is negative all blame fall on women's shoulder.

Momtaz Begum shared her story that:

"I have faced lots of struggle and adverse situation from both my family and society. Because of early sowing my chili demo was hampered and yields was not satisfactory. Then my family blamed me for my decision, rebuked me and verbally abused. That was a bad dream for me. No one left in my side I was all alone. Neighbors also rebuked me for such situation. I have learned a lesson from this situation that early sowing for this variety of seed was inappropriate. Everyone happy to share good news but no one left for share bad one."

Women who involved as paid labour during season manage time by cooking twice in a day to save their time and their family supported them in this regard. Never the less, it should also be mentioned here that the women respondents mentioned that since they are now earning an income which is contributed to overall household income for family; other family members are also trying to manage with the changed timetable to support the women.

4.10 Aspiring community and other women

Women's demo farming encouraging others farmers of the village. Both male and female farmers are being inspired and learned new techniques. Rikta Begum, neighbor of Maheda Begum (Female Demo Farmer) collected information from Maheda Begum and applied same method in her field. Rikta begum decided to cultivate same variety of maize seed and technique as Maheda Begum applied. Other men are also influenced by seeing good quality and number of yield. Most of the cases they ask about variety of seed, brand name and where it can be found, method of cultivation, how to be a demo farmer of M4C etc. Husbands of female demo farmers are also happy as people are giving them more respect and value. Respectable persons of village are also appreciating their work. They have also learned new information and technique from their wife.

Mokhlesur Rahman (husband of a female demo farmer) shared that: *"I have come to know many new things from my wife. I am not ashamed about that rather encouraged. I feel good when people ask about my wife's demo plot, talk about our success and add value to my opinion."*

Manna Miah (Neighbour of Sabana Begum) said that: *"I am interested about Sabana bhabi's demo plot. She got a good amount of profit from chilli cultivation. Next time I will follow her cultivation method. Others are also encouraged by her work."*

4.11 Triple burden of women

Sometimes working in field increase women's workload, they face triple burden. Women have to maintain household work and child caring at the same time by single handed. Once they take the responsibility of cultivation fully then surely their responsibilities also increase. However they have managed overload by working more or compromising their leisure period. To some extent their husbands help them in demo plot but never in household chores due to hegemonic masculine attitude. Usually men don't think they should take part in household activities as it is so uneven in their society. Every 3 out of 5 female respondents said that their husband help them to care agricultural plot, irrigation, collect or buy fertilizer and marketing maize but not in household chores. Women accept this workload as they think it is so usual. If they want to work in agricultural work at first they have to manage household and care work first and then they will participate in agriculture by taking extra load. Respondents said that to live a better life they have to work hard but they have no complain about that. When they see that their hard work brings good results and positive change in their life then their effort is success.

4.12 Market actors focusing on Female farmer in Char

Female farming and others activities of women in agriculture implemented by NGOs are a new concept for agro input companies and other market stakeholders. Though only men are considered as farmer, they did not target women and were not giving such benefits which usually a male farmer gets such as small loan, borrowing, advice etc. Due to NGO interventions with companies they now think women as potential farmer. Now they are thinking afresh for women farmer. Input companies initiating more demo farming with female farmer and encouraging more participation of female participants in their activities in chars. Input companies including gender issue in their all training modules and ensure at least a certain level of participation of women in all project activities that are really remarkable and never happened in Chars beforehand.

4.13 Overcoming challenges by female farmer

The foremost challenge that female farmers faced is to accept and act themselves as responsible farmer. Although women are involved with agriculture intensively but generally they are not recognized as farmer. Women do more than 90% of post harvesting work but they do not get the value of their work as men get. But during demo plot people saw that women are handling the responsibilities of cultivation as formal farmer. They did weeding, seed sowing, cultivation, irrigation and other activities along with other farmers. Thus Social acceptance of female farmers in their own community has been increased due to participating in demo plot. Female farmer have to manage household works single handed along with agricultural work that a male farmer don't have to do. Male farmer have direct connection with input sellers that a female farmer doesn't have. She has to depend on male partner of the family to buy inputs and others. Women's mobility is also restricted. Women have faced few challenges to adjust with new roles and technologies in agriculture such as communication with market actors, talking and maintain relationship with new people, recognizing brand's name, use of new fertilizer and pesticides, applying method etc. But gradually they have coped up with these challenges and successfully completed their work. This study has identifies few areas that need more concern and proper initiative to remove all challenges against female farmers and foster their advancement and recognition in agriculture.

4.14 Areas need to address further: challenges to women to be empowered

There are few issues that need attention to work further to lessen the challenges for female farmers and create more opportunities to help them to be empowered. These are:

- Women's limited access to inputs/ market
- Women's ownership
- Lack of women's decision making and bargaining power in agricultural and HH decision
- Women's mobility/ equity in transport
- National recognition of Female farmer
- Value unpaid work in HH as well as agriculture
- Identify and make more visible women's contribution in agriculture
- Improve communication media and networking with GO NGO agricultural office

V. CONCLUSION

The study outcome and statements of women beneficiaries indicate a direct correlation between the NGO activities and their enhanced empowerment. It reveals that WEE outcomes are interrelated and mutually reinforcing. For example, as a woman's contribution to household income rises, it is experienced that she gains greater status, more confidence and enhanced decision-making authority. This leads to more economic opportunities – e.g., expanding land cultivated or adding in new economic activities such as livestock rearing – which in turn contribute to more empowerment. From the results discussion it can be concluded that some changes brought by NGOs activities are enhancing women's involvement in the agriculture. Their labor, skill, knowledge, behavioral change and practice contribute to increase household income which resulted in confidence and higher status in family. Female demo farming allows them to believe in themselves as important part of agriculture. Men's perception is also positively changing towards women and their contribution in agriculture. One significant change that was acknowledged by women and their male counterparts is that they never had linkage to input companies before to get necessary information, seek advice which now helped them being aware and knowledgeable on good practices of cultivation that ensure better yield and quality. Although in some cases women have faced some negative situation but they have also taken it as important learning and trying to turn around with double strength. Observing result of women's performance in char areas in different field activities, input companies have redesigned their working strategy and field activities. In this context, more public and private policies and interventions are needed to address this new dimension of women's involvement in order to accelerating women's empowerment.

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