



**Impact Evaluation
of
Poverty Reduction Through Minor Crops Production, Preservation,
Processing & Marketing Program**



Conducted by
Evaluation Sector
Implementation Monitoring and Evaluation Division
Ministry of Planning
Government of the People's Republic of Bangladesh

June, 2012

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of
Poverty Reduction Through Minor Crops Production, Preservation,
Processing & Marketing Program**



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Executive Summary

Background of the Project

Lack of technological knowledge, capital, proper preservation, processing and marketing facilities minor crops production in Bangladesh is not considered profitable. Producer of these crops especially the small, marginal and share croppers have lost their interest in producing these daily essentials minor cash crops. Besides, the government has been giving importance and assistance to crops like rice, wheat and others. For that reason production of major crops is increasing. On the other hand, lack of proper assistance minor crops production is not increasing remarkably. Instead in some cases production is decreasing. As a result, the country is spending hard earned foreign exchange for importing these minor crops from abroad to meet the demand of increased population. In light of this reality the project was framed and implemented.

The project aimed at boosting up production, productivity of the minor crops and creation of gainful employment opportunities for small, marginal farmers and share-croppers through group activities.

Project Brief

- **Administrative Ministry/ Division:** Local Government, Rural Development & Co-operatives Ministry/ Rural Development and Cooperative Division
- **Executing Agency:** Bangladesh Rural Development Board (BRDB)
- **Location of the Project:** 204 Upazilas of 26 districts
- **Cost of the Project:**

<u>Original cost:</u>	<u>Actual Expenditure</u>
(in Lakh Taka)	Tk. 1525.53
- **Implementation period:**

<u>Original</u>	<u>Actual</u>
July 2005-June 2008	15 August 2005- 30 June 2009

Objectives of the Project:

- a. To create organization of small, marginal farmers & share-croppers through minor crops production, processing & marketing program and to create employment opportunities, increase income and purchasing capacity;
- b. To create awareness among the producers, businessmen, customers and concerned people regarding the economic value of minor crops;
- c. To involve women directly in the process of production, preservation & processing of minor crops in order to increase their socio-economic power; and
- d. To give necessary training and supply appropriate scientific information & technologies to the minor crops producers, preservers, businessmen & processors.

Objectives of the Assignment:

- i) To assess the implementation status of the major components of the project;
- ii) To assess whether the production of minor crops has been increased after implementation of the project;
- iii) To assess the impact on the project beneficiaries after project intervention;
- iv) To identify the major strengths and weaknesses of the project implementation and suggest appropriate recommendations to overcome the weakness in future similar projects

Study Methodology: To ascertain the change occurred among the beneficiaries and taking into account the above objectives, data collection methodologies were designed for both quantitative household survey and in-depth qualitative investigation approaches. Study design included sample farmers' household both in project/treatment areas and the control/comparison areas. The main focus of the outcome comparison was in terms of the minor crops productions between project areas and comparison areas. In addition, the questionnaires and all other data collection instruments inquired the status of farmers in both pre (2006 or prior) and post project (2006 and current) periods.

Sample Design for Quantitative Household Survey: Multi-stage random sampling with equal cluster size technique was applied to select the survey units, i.e. districts, upazilas, and farmers. A total of 760 minor crops producer farmers' were selected randomly for interviewed from 19 randomly selected districts in the project areas (approx. 75% percent of total project's districts). From each district 1 (one) upazila was selected randomly. A total of $760/19=40$ members were selected randomly from each selected upazila. A total of 5 control upazilas was randomly selected from 5 purposively selected districts adjacent to project areas. From these selected upazilas 380 (50% of the intervention sample) farmers were selected randomly for interview. The survey respondents of the intervention areas were the group members (minor crops producers) and the list of the farmers was collected from the implementation agency. To assess job opportunity of women and their empowerment status a female respondent was selected in every fourth household (preferably wife of the member).

Sample for Qualitative Investigations: Qualitative investigations were conducted only in the intervention areas by applying Literatures/Documents Search: 38 Focus Group Discussions (FGDs); 97 Intensive Interviews and 38 record verification of demonstration farm.

Data Collection: The survey was implemented in 24 Districts, 24 Upazilas covering 1140 respondents in 1140 households. Data for the study were collected from 29 February to 16 March 2012. Hundred percent of quantitative household level and 82 percent of qualitative in depth investigations have been completed.

Findings of Household Survey of Beneficiaries: The average age of the respondents in the project area was 40.6 years. Average household monthly income of the family was 9551 taka in the project areas whereas in the control area it was 9217 taka. The household size was lower in the project area (5.45) compare to control areas (5.99).

Formation of Group Member and Group Leader: The respondents mentioned various procedures of selecting group members for this project, such as 'through household survey (15.7 percent)', 'as an owner of the small land and share croppers (12.7 percent)', 'through recommendation of Union Parishad (UP) members (11.7 percent)', those who were farming spices, oil seeds and pulses, with marginal farmers (5.9 percent) etc. Two-third of the respondents stated that they selected their leader through open discussion and on their consensus. Only 9 percent replied that they selected their leader on the basis of education and ability to work. More than 20 percent farmers said that their group was formed with 10-15 members. One in five (18.8 percent) members stated they had 25-30 members in their groups. An overwhelming majority (95.8 percent) of the members were stated that there were no female members in their groups. Results indicate that group leaders were selected on the basis of discussion and opinion of all the members of the group. They arranged meeting, discussed about the rules and regulations, and members were selected according to survey

and specific criteria. Somewhere the UP members interfered but it was negligible. Overall, the selection was fair.

Knowledge and Skill Gained from Training

More than 71 percent farmers received training during project period. Among them more than 67 percent farmers learned about proper cultivation procedure of minor crops. The other topics they learned were, correct method of crop processing (65.3 percent), appropriate way of marketing (63.7 percent), 'how to preserve minor crops (60.6 percent)' etc. One in two respondents mentioned that they received 1 day training, only 10 percent members stated that they 3 days training. In reply to the question regarding the period of training, almost three in five members answered that the training period was not adequate. About two-third of the members claimed that the duration of the training should be at least 15 days.

Status, Establishment and Utilization of Demonstration Farm

Among the respondents more than 58 percent mentioned that they visited demonstration farm and almost 42 percent mentioned that no demonstration farm was established in there locality. One in four farmers opined that more production is possible through farm exhibitions. They were already benefited by more production through farm exhibition (13.8 percent), learnt use of agricultural tools (10.9 percent) respectively. Comparing project proforma and project completion report it is observed that 47 percent (2870 out of 6120) work was completed.

Provision of Credit Facilities with 2% Rate of Interest

Three in four members were aware about the loan facility with 2% interest rate under the project. Only 3.5 percent claimed that they received loan from this project. The problems faced for getting loan were 'need for the deed of land (37.5 percent)', loan was not available without bond/ bail (37.5 percent) bribery was compulsory (25 percent), needed necessary papers (ask for land-tax, certificate from chairman (37.5 percent), problem to collect necessary papers (12.5 percent), minimum loan should be Tk. 20, 000/- (12.5 percent), loan was not available at the time of need (12.5 percent), needed to go to officers many times (12.5 percent), harassment by the people of Krishi Bank (12.5 percent) respectively.

Deposit and Savings Status

Majority (85.3 percent) of the farmer members were aware of the creation of savings. Among them 89.2 percent deposited their money for savings. The average deposited money for per group was Tk. 4808/- (median 3500), minimum Tk. 400/- taka and maximum Tk.18000/- taka respectively.

Preservation, Process and Marketing of Minor Crops

An overwhelming majority of the farmers stored their crops in their home. Very few of them kept in government cold storage. Farmers in the project area used to dry their crops in sunlight before the project started whereas now among them one in five is using chemicals to store their agricultural goods. In the control area the preservation process was found to be almost similar between two periods. Every one in two used cattle to thresh their minor crops in both the areas. Almost one in five used machines to thresh the crops in the project areas and it is little higher compared to control areas. An overwhelming majority of the farmers in both the areas used to sell their minor crops. Almost 85 percent of the farmers in the project areas sold in nearby place (market/bazaar) whereas in the control areas almost all the farmers sold in their nearby places.

Comparative Impact on Socio-economic status

The analysis shows that overall average monthly family income increased additionally by Tk. 3098.6 and Tk. 2393.4 in the project areas and control areas respectively. The result revealed that average monthly family income in project areas increased significantly after the implementation of project as compared to control area. In such increment of monthly income the came from the agricultural sub sector in both project and control areas 33.4 percent and 21.4 percent respectively. Among the additional income through agriculture sector 16.9 percent and 10.4 percent were the production of minor crops in project areas and control area respectively, reflecting the effective outcome of the interventions of the project. The analysis confirmed that the contribution of minor crops production on monthly family income was significantly higher in project areas.

Multiple Crops Acceleration

In respect of minor crops cultivable land, the additional increase in the project areas during post project period is on average 31% as compared to control areas (average 3%). Findings also indicate that increase of productions of Dal, Oil seeds and Spice crops during post project period both in the intervention and control areas. However, statistical analysis shows that in the intervention areas, production of Oil seeds, Dal and Spice crops increased significantly ($p < 0.01$) than in the control areas.

- In the Intervention areas, before project, only 15% of the respondents were producing triple crops, while during the post project period production on triple crops is reported by 54% respondents, production of single or no minor crops has been reported 18 percent during the pre intervention period, but production of single crop is reported to be reduced to 2.5% respondents; and
- In the Control areas, prior to project, 7% of the respondents were producing triple crops, while during the post project period production of triple crops is reported by 30 percent of respondents, production of single crop has been reported 22 percent in the pre project period, but production of single crop is reported to be reduced to 15% respondents.

Consumption, selling and wastage status of minor crops: Following are the comparative assessments of Consumption, Selling and damage between Intervention and the Control areas:

- Respondents of the intervention areas claimed that on average 32% of produced minor crops were consumed by them in the past (before the project period), while after the project now only 27% of produced minor crops they are consuming which indicates that production of minor crops increased. On the other hand in the control area the proportion of consumption has been increased.
- Respondents claimed that they raised their minor crops selling on an average 5% (58 % versus 63%) after the project implementation in the intervention areas while in the control areas selling status is almost similar as it was in the past;

The multivariate regression analysis indicates that the project has a significant positive impact on yielding oilseeds and dal but not on spices after project implementation. The analyses confirmed that significant impact of training dal production. The results raise a concern about the effectiveness of the minor crops project in Bangladesh in improving the living conditions of the farmers.

Women empowerment and autonomy

More than two-third (35 percent) of women in project area reported that they can decide the use of her/husband's earnings independently while nearly three in ten women (29.5 percent) in control areas said that they can decide to spend their husband's earning alone. About three in five women in project area decide independently on daily household purchases, but only two in five women in control area can decide to purchase daily household needs. The decision making ability of women regarding child education, child treatment during illness and marriage of their children in the project areas are higher compared to control area. Almost 50.0 percent confirmed that they are involved with some activities of an organization like BRAC, ASA, Grameen Bank etc. in both areas.

Findings from Qualitative Investigation

- According to Stakeholders, implementation of this project helped improve the socio-economic condition of people's life. This improvement is the result of the training on minor crops cultivation and thereby increased production afterwards and also created small amount of savings. Farmers groups were formed on the discussions held and members were selected accordingly to their consensus. Women involvement in those groups was poor however it could be dealt by including widows and divorced women. The group should be formed in each village.
- Production of minor crops like pulses, oil seeds and spices increased significantly in the project areas. Farmers were benefited by the demonstration farms through observing cultivation of minor crops, uses of cultivating machineries, seeds and pesticides, in the demonstration farm organized by the project. Number of demonstration farms need to be increased to make the process more productive, also needs to be continued round the year.
- Employment opportunities, wages of the farmers also increased in the project areas due to implementation of the project.
- After implementation of this project, the production of minor crops increased by 1.5 times comparing to beginning year. During that period the price of minor crops was stable in the country though it was high price in international market.
- Training was insufficient. Training allowance was also inadequate. There was lack of training facilities for the field monitors. Farmers need to get more training. The training should be arranged in time and training allowance needs to be increased.
- Not ensuring credit facilities under the project. The reasons behind this "Project proposal was designed a provision of revolving loan fund Tk. 10000.00 lakh under the revenue budget to the trained beneficiary farmers. The credit program was designed to disburse in collateral system. Due to the unavailability of government revenue fund, BRDB, BKB/RAKAB and DAE made an agreement for giving micro credit to the minor crops producers and under the project 2% rate of interest. Due to the existing credit conditions of the bank, loan facility for the project beneficiary was not found effective.
- Initial cost of the project was Tk. 1982.34 lakh but the actual cost was Tk. 1525.53 lakh. The reasons behind the unspent money, the stakeholders argued that delaying fund release, delaying the manpower recruitment and the commencement of the project also delayed. There was an opportunity to run the project with no cost extension for another one year but the fund also released after six months later.

- Usage of chemical fertilizer has been increased; on the other hand usage of organic fertilizer has been decreased.
- There was lack of in-depth supervision

Findings from FGDs: The FGDs were conducted with farmers, teachers, businessmen, imams, chairmen and service holders. The major issues discussed in the FGDs are described below:

- Farmers were aware of cultivation of minor crops. They also got training and about the production which influences them to produce minor crops. The production of minor crops increased but they did not get the fair price in the market. Though women did not participate in the project but they were involved in the processing activities. However poor farmers got the short term benefit but not long term. The farmers have also learned how to use the fallow land. Employment opportunities increase in the minor crops farming area. Implementation of this project did not affect environmentally however using pesticides created slight pollution. Using chemical fertilizer increased and using organic fertilizer decreased. No noticeable change in the environment have been found.
- Due to implementation of this project, profit through minor crops production of farmers increased initially but decreased gradually. The main reason of dipping in production was failure to get credit facility under the project scheme with 2% rate of interest. The poor farmers started their first cultivation of minor crops by taking loan from the village Mohajon with high rate of interest. They thought that after getting credit facility they would repay their loan to the Mohajon. But the reality was none of the farmers get any credit facility which was promised to serve. After marketing their first production of minor crops, the farmer had to repay their loan to the Mohajon which they earned. Not only that, as the interest rate was high, it causes a severe loss for the farmer; and the poor farmers could not achieve the financial success.
- Due to the above reason employment also increased just after starting of the project but it eventually it decreases.
- Usage of organic-fertilizer has been reduced.
- The duration of training was short 1-3 days. But in the project proposal the duration of training was 6 days.

Strengths and Weaknesses

Strengths

- Farmers group were formed (74% achievement)
- Almost three-fourth (71 percent) farmers received training and utilizing there training on minor crops cultivation
- Production of minor crops increased, consequently amount of cultivable land for minor crops increased. Farmers raised selling their produced minor crops after the project implementation in the project areas
- Farmers were benefited by the demonstration farm
- Amount of savings created as well

Weaknesses

- There was no baseline survey conducted before project implementation
- Women involvement was not found significant.
- Everyone knew about government loan scheme with 2% rate of interest but in reality farmers were not able to avail the loan facility.
- There was 21 percent unspent money after implementation
- There were number of vacant posts both officer and staff (at district and upazila level) though the provision was made in PP
- Lack of in-depth supervision by project personnel
- The duration of training was short

Recommendations

- Before taking any future project, baseline survey should be conducted mandatory
- Emphasize more on practical training at the field level in order to encourage growth of skills commensurate to the practice problems encountered during implementation;
- Ensure quality and adequacy of training by increasing duration of training with provisions for refresher (repeat) training and also provisions of after training follow-up of the trainees.
- Ensure women participation in training through awareness campaign locally
- Ensure loan facility to members with simple and easy conditions such as submitting the national ID card
- Establish more demonstration farm so that people get encourage farming minor crops
- Create minor crops selling market/centre (especially government market) for elimination the middle-man
- Increase quality supervision and monitoring of project implementation by the Project Personnel
- Need to form a committee to ensure regular deposit scheme of the members at field level
- Ensure deployment of manpower at beginning of the project
- Use of organic fertilizer should be continued in producing minor crops.
- Rapid fund release from respective authority is necessary after commencement for timely implementation of the project.

Conclusion

The project entitled "Poverty Reduction through Minor Crops Production, Preservation, Processing and Marketing Program" implemented by BRDB ensured benefits of accelerated minor crops productions and extended coverage of utilization of fallow lands of small, marginal farmers & share-croppers. Such acceleration of minor crops productions in turn ensured somewhat improvements in the quality of life of the people living in the catchments of the project, which is evident by comparative analyses of the survey data collected from the control areas and also through comparisons of pre and post project status. But the project suffers from several technical and management problems like lack of loan facility, inadequate establishment of demonstration farm by project. The project suffered from insufficient training. Research findings suggest that in future expansion the program (projects and functions) of BRDB needs to consider strongly a vision on coverage of weak areas of the project. We also recommend that BRDB may be given the opportunities to design and implement the next phase of the project with revision based on the findings of the current evaluation of Minor Crops Production, Preservation, Processing and Marketing Program.