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BRAC Research Report

March 2013

An Assessment of the Social Mobilization and Accountable Local Governance Towards Creating MDG Union's Project

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TABLE OF CONTENTS

ACKNOWLEDGEMENTS

The authors are grateful to Anna Minj, Director, Community Empowerment and Integrated Development Programme, Dr. WMH Jaim, Director, Research and Evaluation Division, BRAC for their support. They are also thankful to Dr. Mohammad Rafi, Head of Research, Social Development and human Rights unit, Research and Evaluation Division, BRAC for his guidance in designing and analysis of the study. Special thanks given to Mr. Mustaque Ahmed, Senior Sector Specialist of Community Empowerment Programme for providing continuous support. We also like to thanks field management and field researcher of Research and Evaluation Division, who assisted in data collection and processing. Sincere thanks to Mr. Hasan Shareef Ahmed and Mr. Altamas Pasha for editing and final proof reading of the manuscript, respectively. Mr. Md. Akram Hossain formatted the report also deserves thanks. The authors are also indebted to the survey respondents for their available time and useful data for the study. Thanks to all people associated with this research for their support, suggestions and assistance.

RED is supported by BRAC's core fund and funds from donor agencies, organizations and governments worldwide. Current donors of BRAC and RED include Aga Khan Foundation Canada, AusAID, Australian High Commission, Bill and Melinda Gates Foundation, Canadian International Development Agency, CARE-Bangladesh, Department for International Development (DFID) of UK, European Commission, Euro consult Mott Mac Donald, Global Development Network Inc (GDN), The Global Fund, GTZ (GTZ is now GIZ) (Germany), Government of Bangladesh, The Hospital for Sick Children, Institute of Development Studies (Sussex, UK), Inter-cooperation Bangladesh, International Labour Office (ILO), IRRI, Liverpool School of Tropical Medicine, Manusher Jonno Foundation, Micro-Nutrient Initiative, NOVIB, Plan Bangladesh, Embassy of the Kingdom of the Netherlands, Swiss Development Cooperation, UN Women, UNHCR, UNICEF, Unilever-UK, University of Leeds, World Bank, World Food Programme, World Fish, Winrock International USA, Save the Children USA, Save the Children UK, Safer World, Rockefeller Foundation, BRAC UK, BRAC USA, Oxford University, Karolinska University, International Union for Conservation of Nature and Natural Resources (IUCN), Emory University, Agricultural Innovation in Dryland Africa Project (AIDA), AED ARTS, United Nations Development Program, United Nations Democracy Fund, Family Health International, The Global Alliance for Improved Nutrition (GAIN), Sight Saver (UK), Engender Health (USA), International Food Policy Research Institute (IFPRI) and Yale/Stanford University.

RED received wide support and cooperation from all divisions of BRAC, particularly from the field staff and the people of Bangladesh without whose sincere support and patronage no field research could be conducted smoothly. RED also received useful comments, suggestions, and guidance from researchers, reviewers, and editors from within and outside the country, which helped improve the quality of research and research outputs. RED is indebted to BRAC management for its continued support.

ACRONYMS

Agri.	Agriculture
AIDS	Acquired Immune Deficiency Syndrome
BMMS	Bangladesh Maternal Mortality Survey
BDHS	Bangladesh Demographic and Health Survey
CEP	Community Empowerment and Integrated Development Programme of BRAC
GD	Group Discussion
HIV	Human Immunodeficiency Virus
HH	Household
IGA	Income Generating Activities
IM	Infant Mortality
MDG	Millennium Development Goal
THPB	The Hunger Project Bangladesh
TT	Tetanus Toxoid
TB	Tuberculosis
TBA	Traditional Birth Attendant
TTBA	Trained Traditional Birth Attendant
NGO	Non-government Organization
UP	Union *Parishad*
WASH	Water Sanitation and Hygiene
VGF	Vulnerable Group Feeding
VGD	Vulnerable Group Development

ABSTRACT

Community Empowerment Programme of BRAC and The Hunger Project Bangladesh jointly embraces a participatory approach towards creating Millennium Development Goal unions in Mymensingh district. The study aimed to assess the achievement of this project. A quasi-experimental design including pre-test and post-test surveys was used to assess the achievement of the project. Both quantitative and qualitative techniques were used. A total of 2,007 households in experimental and 1,963 households in control areas were surveyed. Besides, to compare the findings with baseline data were extracted from 1,971 households in baseline. The findings reveal that in experimental areas households were performing better than those in control and baseline areas particularly in children (6-10 years) enrollment rate in primary education, adult literacy rate, knowledge on HIV/AIDS, childhood immunization rate, safe water, sanitary latrine facility and participation in training in income generating activities. However, there are still some challenges which needed to be addressed such as treatment-seeking behaviour during pregnancy, birth registration, and common people satisfaction on local government. Thus, the project should emphasize the above mentioned issues to achieve the objectives of project.

EXECUTIVE SUMMARY

INTRODUCTION

Millennium Development Goals (MDGs) were established by the United Nations in 2000. Bangladesh, a signatory of the MDGs is committed to achieve MDGs by 2015. Community Empowerment Programme of BRAC (CEP) and The Hunger Project Bangladesh (THPB) jointly initiated a year-long pilot project on social mobilization and accountable local governance towards creating MDG at the union level. The aim of the project is to create MDG unions and make significant MDG related improvements at grass roots level. A participatory approach was adopted where communities spontaneously participated in their development and resolve their problems. The study aimed to assess the impact of the project according to the indicators set out in the program (such as creating MDG unions).

METHODS

The quasi-experimental design including pre-test and post-test surveys was used. The study has two parts - baseline and endline. Before initiating the project, a baseline survey was conducted through census in 69 villages to explore the existing MDGs indicators of the project. Regarding baseline, data were extracted from four villages randomly out of 69 villages, each village from the four project intervention union. After one-and-half-year project intervention, an endline study was conducted to measure the progress of the project. In endline, there were two parts - one was experimental and another was control areas. A two-stage simple random sampling technique was used for sample selection. Four above-mentioned experimental villages were selected randomly from the four project intervention unions. Similarly, four non-intervention villages were selected randomly from adjacent unions of project intervention unions as control villages. A total of 2,007 and 1,963 households were surveyed from the selected experimental and control villages respectively. In addition, four group discussions were conducted with project beneficiaries and common people in experimental areas. Simple statistical tests including test of equality of means and proportions along with “t” tests were performed.

KEY FINDINGS

Socio-demographic profile

The mean household size from baseline (4.6) to experimental (4.7) areas was slightly increased and the difference was statistically significant. The mean age was slightly higher in experimental (25.6) areas compared to baseline (25.1) and the difference was statistically significant. Similar findings have been observed between experimental (25.6) and control (25.0) areas in this regard.

The ratio of people without education was less from baseline (45.7%) to experimental (37.8%) areas and the difference was statistically significant. There was also significant difference found between experimental (37.8%) and control (42.4%) areas in this regard. Significantly higher proportion of population in experimental areas had primary, secondary and higher education (bachelor and beyond) than the baseline and control areas. It means that percentage of educated people was quite higher in experimental areas than the baseline and control areas.

Less than 50% of population was house-wife, i.e. 41.1% in baseline, 41% in experimental and 41.5% in control areas. The majority of target population in baseline, experimental and control areas were involved with physical labour-related occupations, e.g., agriculture, day labour (agriculture, non-agri.), transport work, and domestic work. A few of the respondents in baseline, experimental and control areas were unemployed and student. In addition, a small number of people in baseline, experimental and control areas was involved with other occupations e.g., beggar, tailoring/*katha* sewing, carpenter (work with bamboo, cane), handicraft, *Kabiraj*, *Polli* doctor.

Primary school enrolment rate of children (6-10 years)

Primary school enrollment of children between 6 to 10 years of age was higher in experimental (girls 95.1%, boys 93.4%) areas than the baseline (girls 78.3% and boys 77.4%) and control (girls 92.1%, boys 91.3%) areas.

Adult literacy rate

The findings show that adult literacy rate was higher in experimental (female 57.2% and male 61%) areas than the baseline (female 45.1%, male 54.2%) and control (female 52.4%, male 55.1%) areas.

Maternal and child health

Mean weight of new born children between baseline (1.31kg) and experimental (1.59 kg) areas was found statistically significant. In contrast, mean weight of new born children between experimental (1.59 kg) and control (1.51kg) areas was not significant. Percentage of receiving tetanus toxoid (TT) injection during pregnancy was significantly higher in experimental (14.3) areas than the baseline (9%) and control (13.2%) areas. We also observed that percentage of pregnant mother of receiving antenatal care (ANC) from medically trained provider between baseline (7.6%) and experimental (9.9%) areas was statistically significant. In contrast, percentage of pregnant woman of receiving ANC from medically trained provider between experimental (9.9%) and control (9%) areas was not significant.

Most of the deliveries in baseline, experimental and control areas were attended by untrained traditional birth attendants (TBA)/relatives. The number of deliveries attended by untrained birth attendant and relatives was significantly lower in experimental (40%) areas than the baseline (50.5%) and control (46.9%) areas. On the other hand, the number of deliveries attended by trained traditional birth attendants (TTBA) was significantly higher in experimental (34%) areas than baseline (30.7%) and control areas (31.3%).

Percentage of deliveries at government hospitals between baseline (11.1%) and experimental (14%) was found statistically insignificant. Almost similar findings have been observed between experimental (14%) and control areas (12.2%) in this regard. The number of deliveries took place at non-government hospital/clinic between baseline (6.1%) and experimental areas (12%) was found statistically significant. On the other hand, the number of deliveries took place at non- government hospitals between experimental (12%) and control areas (8%) was not significant.

Among the children born in last one year, a small percentage of total child-birth was registered in baseline (2%), experimental (2.4%) and control (1.9%) areas. There was no significant difference among the study areas. Childhood immunization rate was

significantly higher in experimental areas (91.4%) than the baseline (85.8%) and control areas (87.9%). Percentage of children under-5 who received vitamin A between baseline (17.1%) and experimental areas (43.1%) was found statistically significant. On the other hand, this rate was found statistically insignificant between experimental (43.1%) and control areas (41.2%). Infant mortality rate was found 44 per 1,000 live births both experimental and control areas, while it was 77 per 1,000 live births in baseline.

Knowledge on HIV/AIDS and status of tuberculosis patient

knowledge on HIV/AIDS was found significantly higher in experimental areas (46.7%) than baseline (37.7%) and control areas (43.6%). Detection of tuberculosis (TB) patients was found statistically significant between experimental (0.75%) and baseline areas (0.20%). In contrast, detection of TB patients between experimental (0.75%) and control areas (0.36%) was found insignificant.

Safe water, sanitation, and hand washing practice

Study results reveal that after two years of intervention of the MDG pilot project**,** knowledge on access to safe drinking water, arsenic-free water, sanitation, and hand washing practices with soap were increased in experimental areas compared to baseline and control areas. Tubewell water is used predominantly for drinking in the study areas. However, a significantly higher proportion of households (99.9%) in experimental areas used tubewell water for drinking than the comparisons areas, i.e., baseline (93.7%) and control (99.7%).

Overall, the proportion of tubewell tested for arsenic contamination in experimental areas (80.2%) was found higher than the comparison areas, i.e., baseline (75.2%) and control (67.0%). Similarly, significantly higher proportion of households (98.3%) in experimental areas have access to arsenic-free drinking water compared to baseline areas (81.7%).

A slightly higher proportion of the households (32.8%) in experimental areas reported to have sanitary latrine compared to baseline (30.6%) and control areas (25.1%) and the differences were statistically significant.

A good proportion of households (38.2%) in experimental areas reported that they usually washed hands with soap and water after defecation, while 28.7% of baseline and 35% of control areas' households were reported to wash hands with soap after defecation. The difference between baseline and experimental areas was statistically significant, but the difference between experimental and control areas was not statistically significant. On the other hand, a higher proportion of the households (22.8%) in baseline areas reported that they usually washed hands only with water after defecation compared to the experimental (2.8%) and control (7%) areas. The overall hygiene practice, i.e., hand washing after defecation in the households of the experimental areas was found better than the comparison areas, baseline and control.

Status of loan from different NGOs and training on income generation

On an average 38% of the experimental, 26% of the baseline and 28.2% of the control areas' household members took loan from different NGOs for generating income in the last year. However, a higher proportion of household members (37.2%) in experimental areas took loan from BRAC than the comparison areas, i.e., baseline (15%) and control (30%) areas, followed by ASA (experimental areas 31%, baseline

areas 20.1% and control areas 27%). In contrast, around 45% of the household members in baseline areas took loan from Grameen Bank than the comparison areas, i.e., experimental (16.8%) and control (17.9%) areas. The average loan size (Tk. 14,150) for households in experimental areas was slightly higher than the households in baseline areas (Tk. 10,330) and the difference was statistically significant. It also appears that a good number of household members (5.9%) in experimental areas participated in the training on income generating activities (IGA) compared to baseline (1.4%) and control areas (4.7%) in the last year.

Community people's access to *union parishad*

A higher proportion of household members (27.7%) in experimental areas visited to union p*arishad* (UP) to meet the chairman and members than the comparison areas, i.e., baseline (23.2%), and control (16.9%) areas in the past year. On an average, five meetings were convened with UP chairman and members at the UP compound in experimental areas while three meetings were held in baseline and two meetings in control areas. The difference between baseline and experimental areas was statistically significant, but the difference between experimental and control areas was not statistically significant. The study also reveals that the experimental areas (71.2%) have increased access to different services from the UP, e.g., identity card, birth and citizenship certificate, vulnerable group feeding (VGF) card, tubewell, relief and food for work than the comparison areas, i.e., baseline (35.5%) and control (64.5%) areas. A significant proportion of households (18.5%) in experimental areas reported to visit the UP in order to get solutions for their social and financial conflict compared to baseline (3.3%) areas. On the other hand, there were 98.7% of experimental, 96.4% of baseline, and 94.3% of control area households mentioned that as a citizen they had right to get services from UP. However, the percentage of households who were highly satisfied with the performance of UP was higher in baseline areas (18.3%) compared to experimental (9.4%) and control (9.5%) areas.

Existence of local organization in *paras*

The formation of local organizations with the initiative of individuals which were formed highest in experimental areas (84.5%) than the comparison areas, i.e. baseline (6.8%) and control (80%). Similarly, among them, a good proportion of local organizations were functioning in experimental areas (99.1%) compared to baseline (89%) and control (92.9%) areas. The average member size of organization in experimental areas (36) was higher compared to baseline (20.5) and control (25.2) areas. The difference between baseline and experimental was statistically significant, but experimental and control was statistically insignificant.

Recommendation

CEP programme of BRAC and THPB can take some measures to strengthen MDG pilot project such as increase the receiving of sought treatment from medically trained providers during pregnancy, increase awareness on birth registration, increase number of IGA training for animator and local people, create proper chain for marketing perishable goods, and arrange free of cost sanitation and tubewell for the poor and extreme poor people. Besides, incentive may be arranged for animators and relationship between local government and animator should be improved to create an effective partnership between local government and the community.

SUMMARY FINDINGS FROM GROUP DISCUSSIONS

Indicators	What they have learnt?	Changes	Constraints	Recommendation
Education - Primary School enrollment of children between 6 to 10 years of age - Adult literacy	- Importance of children enrollment in school - Demerits of illiteracy	- Increased of primary school enrollment of children (6 to 10 years) - Number of adult literacy centres runs in intervention area with the assistance of animators	-	Increase the duration of adult education.
Health - Maternal and child health - HIV/AIDS - Tuberculosis	- Awareness on maternal and child health (received ANC from medically trained provider during pregnancy, received TT injection during pregnancy, delivery attended by medically trained provider, gained knowledge on birth registration, immunization of new born children) - Awareness on HIV/AIDS and tuberculosis.	- Increase in receiving of ANC from medically trained provider, increase in receiving of TT injection during delivery - Limited change in delivery assisted by the medically trained provider - Childhood immunization rate increased; infant mortality decreased but limited changes on births registration.	- People gave less importance on birth registration	-
- Sanitation and safe water	- Importance of sanitary latrine and safe water and hand washing with soap and water after defecation.	- Instalment of sanitary latrine and tubewell increased. People became aware of washing hands with soap and water after defecation	- Poor people could not bear the cost of sanitary latrine. Even they could not bear the nominal cost of sanitary latrine which was provided by the Government and BRAC WASH programme.	Arrange free sanitation for poor and extreme poor people.

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IGA training and local organization formed	- IGA training can reduces poverty and it assisted poor people to be self employed.	- Became self employed in poultry firm, fishing and boutique after receiving IGA training. - Formation of local organization in *paras* with IGA increased which created entrepreneur	- Limited IGA training was provided by MDG project staff	Increase number of IGA training. Arrange a proper chain for marketing perishable goods.
Access to UP	- As a citizen of Bangladesh, people has right to get facilities from local Government.	- People desired to receive facilities from UP such different types of aids, attending ward *sava* more than before.	- Sometimes chairman and member of UP did not give importance to the animator.	Increase number of meeting between local government and animators.

INTRODUCTION

BACKGROUND

Community led participation enhances social capital and self reliance. It creates active citizen who get involved in all strategic plan of community development (Reid 2010). Community led participation also create a supportive environment to meet Millennium Development Goals (MDGs), the goals which were adopted by the United Nations in September 2000 (Gillis 2005). The goals strive to establish a world with less poverty and hunger, lower child and maternal mortality, improved maternal health, low prevalence of tuberculosis (TB), combat against malaria and HIV/AIDS, reduce gender inequality, ensure universal primary education, as well as develop global partnership and environmental sustainability by 2015 (GED 2009). Development specialists insist that MDGs can be achieved through community participation (Gillis 2005). This paper aims to understand how community led participation assists in achieving MDGs.

Bangladesh, a developing country with 160 million people has made a remarkable progress in achieving universal primary education where net enrolment rate is 91.90% (GED 2009 and Hausmann, Tyson, Zahidi 2012). The child mortality rate is 11 per 1,000 live births and infant mortality rate is 43 per 1,000 live births (BDHS 2010). Maternal mortality ratio is 194 per 10,0000 and prevalence of HIV/AIDS is less than 0.1% (BMMS 2010 and GED 2009). In spite of these successes, there are still some challenges in achieving the goals like attaining the goals related to removal of hunger, the enrollment of male and female in tertiary education. Same is true in the case of achieving gender parity and there is also a lack of policy to meet environmental sustainability. However, the Bangladesh government has integrated MDGs in national development programme through poverty reduction strategy papers (GED 2009). Apart from the Government, a number of non-governmental organizations (NGO) are working towards achieving MDGs.

Community Empowerment Programme (CEP) of BRAC and The Hunger Project Bangladesh (THPB) jointly started a pilot project on "Social mobilization and accountable local government towards creating MDG unions[1]" in 2010. The project is designed to contribute to achieving the MDGs for Bangladesh. MDG union means to create union appropriate MDG indicators to achieve MDG through participatory approach. This project is envisage to create a future rural Bangladesh where people will vibrant, mobilized, self-governing, towards achieving MDG. The main strategy of this project is to localize MDGs at grassroots level through participatory approach. The objectives of the project are to stimulate local people to develop their self reliance, and create awareness of their rights and roles as citizens. The project also intends to create an effective partnership with common people and local government to create a responsive, transparent, and accountable local government.

Before the implementation of the project, a baseline survey was conducted to explore the existing situation of MDG indicators. After two years of the project this study was conducted to assess the impact of the project.

[1] A union *parishad* is the lowest administrative unit of the government.

AN OVERVIEW OF THE PROGRAMME

This project was implemented in four unions namely: Jahangirpur of Nandail *upazila*, Char Nilokkhia and Khagdohor of Sadar *upazila*, and Ghoga of Muktagachha in Mymensingh district. The programme set MDG indicators as a guideline to create MDG unions. These are as follows:

Table 1. Indicators of MDGs set by the programme[2]

MDGs	Objectives	Indicators
Goal 1	Eradicate extreme poverty and hunger Identify underweight girls and boys (Separately) under 5 years of age.	Measuring weight and height of girls and boys (Separately) under 5 years of age.
		Identify and monitor malnourished children.
Goal 2	Achieve Universal Education.	Number of school going girls and boys attending school among the school going population.
Goal 3	Promote gender equality and empower women. Promote female and male attendance at *Ward Sabhas*[3].	Number of school going girls and boys attending school among the school going population.
		Number of male and female illiterate becoming literate.
		Number of male and female attended last ward sabha.
Goal 4	Reduce child mortality. De-worm children under de-worming programme. Immunize children under immunization programme.	Birth records of boys and girls in the UP registered separately.
		Death records of boys and girls under five years in the UP registered separately.
		Immunization of girls and boys recorded by health worker.
Goal 5	Reduce maternal mortality caused by maternal complicacy. Increase of delivery attended by skill birth attendants/safe delivery in health centres. Stop early marriage and dowry.	Number of low birth weight babies.
Goal 6	Combat against HIV/AIDS, Malaria and other diseases.	Raise awareness on HIV/AIDS. Number of active TB cases treated in the union and recorded by health workers.
Goal 7	Ensure environmental sustainability.	Numbers of families do not have proper access to safe water resources.
		Numbers of families do not have proper access to sanitary latrine.

[2] Source: MDG pilot project proposal 2010.

[3] *Elected members have to conduct meeting with 20% voter of the respective ward under the supervision of female members in ward level twice in a year. MDG pilot project strives to increase the attendance of female voter in the respective ward meeting.*

To mobilize local people, the programme arranged some training to create animators[4] in different segments. With assistance of BRAC CEP the training was conducted by THPB.

Special animator training- Members of selected union *parishad* and a group of volunteer participated in the training. This four-day training was given in unions to create special animator.

Animator training- This training was given in wards with direct assistances of special animators. This training focused on the self strength and creativity of human being. The objective of this training was to motivate people to apply their strength and creativity to work in order to reduce hunger and poverty.

Youth leader training- This training was conducted for students. Through this training the students were motivated to identify the students dropping out from school, involve in adult education, protest against sexual harassment, and discourage early marriage in their community.

Women leadership development training- The objectives of this training were to organize women against dowry, violence and early marriage. Through this training woman were made aware of patriarchy, human rights, and gender equity.

Training on participatory action research- This training was offered to motivate hard core poor people to identify their problems in terms of social and infrastructure-related issues. This training aimed at motivating target population in sharing their knowledge. Besides, through this training they were motivated to gather once a month and convene meeting where they would try to reduce their poverty by applying creativity or skill. The training also encouraged them to be self employed.

Facilitator training- From special animators and animators each ward selected three to four persons who had higher leadership skills for facilitator training. The training was focused to create an ideal village and made them aware of rights and roles as a citizen.

Through the above mentioned simple training THPB gave the villagers an idea on MDGs. The objectives of these training were to mobilize the community for active participation for their own community development. It also let them realize that they were the focal element of their development. At the very beginning, the Hunger Project and CEP programme of BRAC oriented the chairman and members of the UPs in the study area about the objectives of the project then the training were commenced.

The training had overlaps as the same persons received both youth and women leadership training. Apart from this, the volunteers of BRAC programme such as health, legal aid service, water and sanitation participated in animators training and worked as an animators. The animators' worked together for the development of their community on voluntary basis.

[4] *Animators who received training from The Hunger Project Bangladesh for work of their community development on voluntary basis*

DEVELOPMENT ACTIVITIES OF PROGRAMME[5]

Initiation of local organization in *paras* to be self-employed

To eradicate poverty at grassroots level, the animators encouraged local people to form local organization. The animators arranged IGA-related training to generate employment. Handicrafts, tailoring, computer, and livestock training were given to the local people. A total of 458 local organizations were formed. Through this process altogether 164 female and 394 male became self reliant.

Primary education

To enroll school-aged children at school, the animators arranged rally, popular theater, and campaign. The animators also arranged mothers' assembly and meeting with parents, teachers, and local people to create awareness on primary school enrollment of children. A total of 32 campaigns were conducted in four unions. The objective of the campaign was to make people aware about the importance of education. With the assistance of the animators 1,378 girls and 1,792 boys were re-enrolled at primary schools.

Adult literacy

Youth leader animators worked to eradicate illiteracy from their community. The animators listed the illiterate people from their community and arranged adult education at a nominal cost. A total of 45 adult education centres were formed and altogether 1,305 male and female become literate through the courses organised and offered by the youth leader animators and other animators.

Women participation

Ensuring women's participation in local government activities is one of the key to achieve gender equality. With the assistance of CEP and THPB programme staff, 10 women from women leaders and *Polli Somaj* participated in the UP election. Among them, four women were elected as members of UP.

Safe delivery

The animators arranged courtyard meeting and workshop in association with BRAC health workers to aware local people about the service that BRAC providing to mothers during delivery. To ensure safe delivery the animators made people aware about the importance of seeking treatment from medically trained birth attendants. The animators identified pregnant women in their community and informed BRAC health workers. Thus, they made a bridge with pregnant women and BRAC health workers.

Childhood immunization and providing vitamin A

BRAC and THPB made local people and animators aware about the importance of immunizing children and receiving vitamin A. Subsequently, the youth leaders, women leaders and local animators identified children and encouraged their parents to immunize. Altogether, 5,400 and 2,400 children in the intervention area were immunized and received vitamin A.

[5] Sources: All the data has been extracted from annual report of the Hunger project Bangladesh (2010-2011). (Unpublished data)

Weight monitoring

Usually BRAC health workers measured the weight of newborn children in the intervention area. But the problem was that the common people had less knowledge about the importance of taking weight of newborn children. So, the animators created awareness of local people about the importance of weight monitoring for newborn. They encouraged local people to communicate with BRAC health workers to measure their children's weight. A total of 2,557 children's weight was regularly measured in the intervention area.

Postnatal care of newborn children

With the assistance of BRAC CEP and THPB, the animators created awareness among rural people to receive service from BRAC health workers on issues such as postnatal care of newborn children. Altogether 2,026 newborn children in the intervention area received postnatal care during project intervention.

Birth registration

The animators organized campaign, meetings, and workshop with local people to create awareness on birth registration. A total of 3,510 birth including children and adult was registered in the UP.

Child marriage

Local animators, women leader, and youth leaders arranged campaign, workshop, popular theatre and courtyard meeting to raise awareness among local people about the demerits of child marriage. A total of 54 child marriage was stopped.

Tuberculosis

BRAC health workers detected TB patients and provided free treatment. However, common people were not well informed about this service of BRAC. So, youth leaders and local animators arranged campaign to raise awareness among local people on TB. They also informed local people about the service that BRAC has been providing to TB patients.

HIV/AIDS

The animators raised awareness on HIV/AIDS. They arranged rally, workshop and courtyard meeting to create awareness on HIV/AIDS.

Water and sanitation

The animators arranged workshop, campaign, popular theatre, and courtyard meeting to raise awareness among local people to use sanitary latrine and drink safe water. They informed local people that the government and BRAC water sanitation and hygiene (WASH) programme provide sanitary latrine at a nominal cost. A total of 1,050 sanitary latrines were provided from BRAC WASH programme in one year. With the initiative of local animators 250 tubewells were tested for arsenic contamination.

OBJECTIVES

The study aimed to assess the MDG indicators of the intervention area. The detailed objectives were to:

- assess the MDGs according to the project indicators and goals;
- assess the relationship between UP and community to create an effective partnership with local government and community towards creating MDG unions; and
- assess community people's involvement in IGA training and formation of local organizations in *paras* to become self employed to eradicate poverty.

METHODS

A quasi-experimental design including pre-test and post-test surveys was used to assess the progress of MDG pilot project. Both quantitative and qualitative approaches were used for data collection.

STUDY SITE AND POPULATION

The study was conducted at eight villages in three *upazilas* of Mymensingh district. Both baseline and endline surveys were conducted .Within endline there were two groups –experimental and control areas. Before beginning the project the baseline survey was conducted. Regarding experimental sites, the study was conducted at four villages, one from each of the four unions (Table 2). Similarly, the four adjacent unions were selected as control sites and one village was selected from each union.

Table 2. Study site

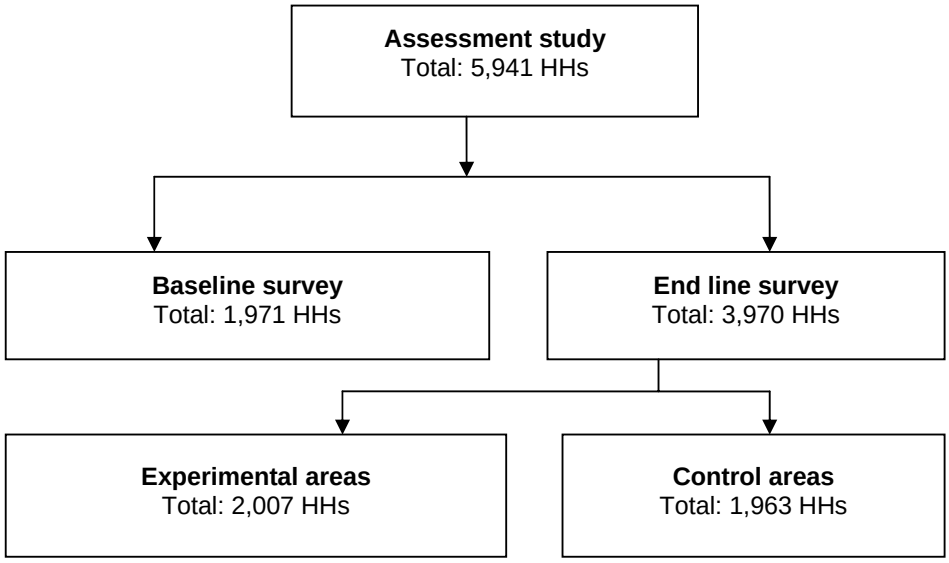
District	*Upazila*	Union	Village	Sample Household
Mymensingh	Mymensingh Sadar	*Char* Nilokkhia	Mohojompur (Exp.)	637 (Exp.)
		Char Ishwardia	Haripur (Cont.)	621 (Cont.)
Mymensingh	Mymensingh Sadar	Khagdohor	Ganya Shampur (Exp.)	508 (Exp.)
		Kustia	Putiali (Cont.)	432 (Cont.)
Mymensingh	Muktagachha	Ghoga	Ghoga (Exp.)	362 (Exp.)
		Dullah	Gayespur (Cont.)	310 (Cont.)
Mymensingh	Nandail	Jahangirpur	Borillah (Exp.)	500 (Exp.)
		Sherpur	SangramKeli (Cont.)	600 (Cont.)
Total	Four *Upazilas*	Eight unions	Four villages (Exp.)	2,007 (Exp.)
			Four villages (Con.)	1,963 (Cont.)

SAMPLE AND SAMPLING PROCEDURE

Statistical representation was not considered in determining sample size. Before initiating the project through census a baseline was conducted in 69 villages in intervention areas. Regarding baseline, data were collected from the four villages randomly out of 69 villages, each village from the four project intervention unions. A

total of 1,971 households' data were selected from the baseline. After-one-and-half years project intervention, an end line survey was conducted to measure the progress of the project. In end line, there were two components - experimental and control areas. A two-stage random sampling technique was adopted for selecting target population. Firstly, the above-mentioned four villages were selected randomly from baseline, each village from the four project intervention unions. Same number of villages was selected from the four adjacent unions as control villages. Secondly, 3,970 households were selected by census from eight villages as the targeted sample population of this study. Thus, 2,007 households in experimental and 1,963 households in control areas considered (Fig.1).

Figure 1. Sampling framework



METHODS OF DATA COLLECTION

Both quantitative and qualitative methods were used for data collection in April 2012. A structured questionnaire was used to gather information from targeted population. As many other stakeholders were involved in the project, four group discussions (GD) were carried out to explore and deepen critical understanding of the THPB-MDG pilot project outcome.

Survey

The enumerators visited each household to collect information from the selected eight villages. Information on socio-demographic issues, education, health, sanitation, immunization, maternal and child mortality, and knowledge on HIV/AIDS and TB was collected. The questions were also asked in order to get an idea of communities involvement in IGA training, loan received from NGOs, and communities relationship with UPs.

Group discussion

Group discussion was conducted only in the project intervention villages. One GD session was conducted in each village by using guideline coherent with study objectives. Eight to ten villagers or project beneficiaries, e.g., women's forum

members, enumerators, volunteers and village leaders, participated in each GD session.

Data analysis techniques

The quantitative data were analyzed using SPSS. Simple statistical techniques include frequency distribution with t-test was used in analyzing data. To assess the impact of MDG pilot project in each component data were compared by pre-test and post-test intervention comparisons, i.e. baseline to experimental areas and experimental to control areas. The qualitative data were analyzed manually by following coding and recoding process. In addition, qualitative techniques were employed to explain particular situation with significance, understand and extend the association with quantitative finding(s), and investigate the rationales behind holding certain progress of project beneficiaries.

Data management

Quality control was followed in every stage of the study. Extensive guidance was provided to the field enumerators by supervisor, researcher, and data management team of RED, BRAC. A number of randomly sampled re-interviews were carried out to cross-check the accuracy of the data.

Limitation

Baseline data were collected by the project staff of study area which was likely to bias the data. Another limitation of the baseline study was no control areas were considered in baseline. So, we could not use advanced technique like difference in difference in this study.

FINDINGS

SOCIO-DEMOGRAPHIC PROFILE

Table 3 presents the socio-demographic characteristics of the households. We observed that mean household size (in baseline 4.6, in experimental 4.7) and mean age (in baseline 25.1, in experimental 25.6) of people in baseline and experimental areas were significantly different. In contrast, there was no significant difference between experimental (4.7) and control areas (4.6) in terms of mean household size. But in terms of mean age of populations, significant difference was observed between experimental (25.6) and control areas (25) (Table 3).

In terms of education, population was categorized into different groups. The difference in proportion of people without education between baseline (45.7%) and experimental areas (37.8%) was significant. There was also significant difference between experimental (37.8%) and control areas (42.4%) in this regard. A higher proportion of population in experimental areas had primary, secondary, degree and above education than that in baseline and control areas. Religious education was slightly higher in experimental areas (1%) compared to baseline (0.1%) and the difference was statistically significant. In contrast, religious education was found slightly higher in control areas (2%) compared to experimental (1%) areas and the difference was statistically significant. There was no evidence in control and experimental areas about people with non-formal education except in the baseline areas. The education rate was quite impressive in project intervention areas than the baseline and control areas (Table 3).

A little less than 50% of population in baseline (41.1%), experimental (41%), and control (41.5%) areas were housewives. The majority of target population in baseline, experimental and control areas were involved in physical labour-related occupations, e.g., agriculture, day labour (agriculture, non-agri.), transport work, domestic work. A few of study population in baseline, experimental and control areas were unemployed and student. In addition, a very few respondents in baseline, experimental and control areas were involved in other occupations e.g., begging, tailoring/*katha* sewing, carpenter (work with bamboo, cane), handicraft, *Kabiraj*, and *Polli* doctor (Table 3).

About 90% of the population in baseline, experimental and control areas live in *kancha* dwelling houses. A small percentage of population in baseline, experimental and control areas live in semi-*pucca* or *pucca* houses. A little more than 95% of the population in baseline, experimental and control areas' owned dwelling house. A few of target population in baseline, experimental and control areas resided in rented, without rented and own houses built on others' land (Table 3).

Table 3. Socio-demographic Characteristics (%)

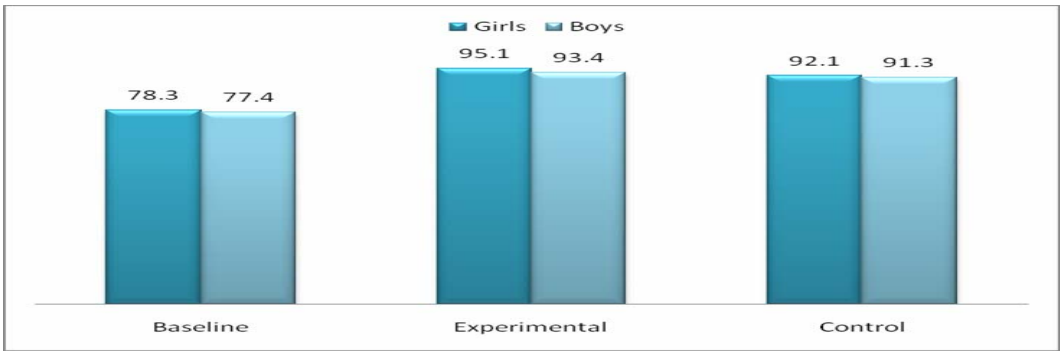
Indicators	Baseline (n= 1,971)	End line		p-value	
		Experimental (n= 2,007)	Control (n=1,963)	1 vs 2	2 vs 3
	(1)	(2)	(3)		
Mean household size	4.6	4.7	4.6	.040	.265
Mean age of population	25.1	25.6	25.0	.008	.001
Level of education (%)					
No education	45.7	37.8	42.4	.000	.000
Primary	30.7	34.9	32.9	.000	.007
Secondary	20.1	22.8	19.9	.000	.000
Higher secondary	2.0	2.5	1.8	.035	.006
Degree and above	1.1	1.0	1.0	.340	.892
Religious education	.1	1.0	2.0	.000	.000
Non-formal education	.1	.0	.0	-	.000
Marital Status					
Unmarried	48.9	49.2	49.5	-	-
Married	48.1	46.1	46.0	-	-
Widow/widower	2.7	4.2	3.8	-	-
Divorced/abandoned	.3	.5	.7	-	-
Main Occupation(15+)					
Agriculture	15.1	10.6	12.4	-	-
Small Business	7.5	7.1	6.8	-	-
Service	7.0	7.8	7.4	-	-
Transport worker	-	3.9	3.7	-	-
Day labour (agriculture)	6.0	6.2	7.3	-	-
Day labour (non-agriculture)	4.5	3.1	2.5	-	-
Domestic work	2.8	3.2	3.8	-	-
Housewife	41.1	41.0	41.5	-	-
Student	7.6	9.8	9.4	-	-
Unemployed	5.3	.7	.7	-	-
Others	3.1	6.5	4.3	-	-
Status of dwelling house					
**Pucca*	1.4	.6	.3	-	-
***Semi-pucca*	8.3	9.9	8.8	-	-
****Kancha*	90.1	89.5	90.9	-	-
Ownership of dwelling house				-	-
Own	95.3	97.7	97.5	-	-
Rented	3.5	.1	.2	-	-
Other house without rent	.3	1.9	1.6	-	-
Own house built on others land	.9	.3	.7	-	-

***** Concreted /brick built floor, wall and roof.
** Floor is made of concreted/brick built other than wall and roof made of other materials.
***Floor, wall and roof made of other materials other than brick/concrete.

PRIMARY SCHOOL ENROLMENT RATE OF CHILDREN (6-10 YEARS)

Primary school enrollment of children aged 6-10 years was higher in experimental areas (girls 95.1%, boys 93.4%) than the baseline (girls 78.3% and boys 77.4%) and control areas (girls 92.1%, boys 91.3%). It was also noted that the enrollment of girls in primary was higher than boys among three areas e.g. baseline, experimental, and control (Fig.2).

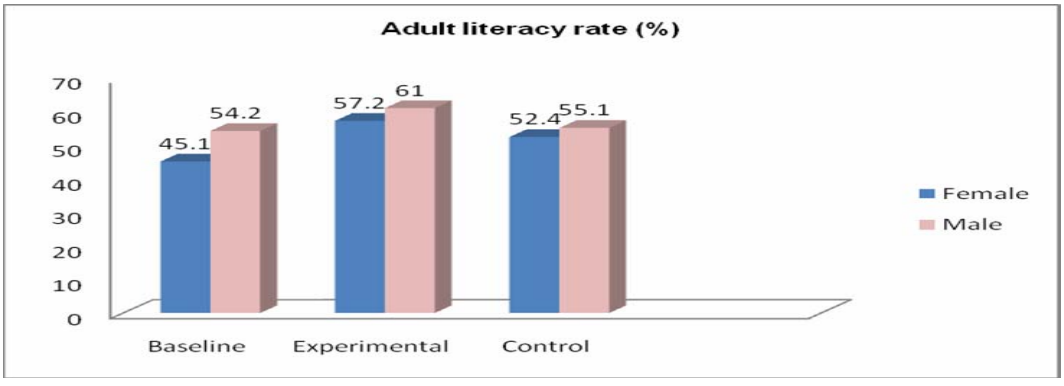
Figure 2. Primary school enrollment of children by sex (%)



ADULT LITERACY RATE

Adult literacy rate is an important indicator of past performance of educational attainment by the people. According to BBS (2001) we treated those people as literate who can read and write a letter. The finding shows that adult literacy rate was higher in experimental areas (female 57.2% and male 61%) than the baseline (female 45.1%, male 54.2%) and control areas (female 52.4%, male 55.1%). It must be noted that the adult literacy rate among male was higher than the female in baseline, experimental and control areas (Fig.3). MDG pilot project runs a number of adult literacy centres through their animators to increase adult literacy rate in project intervention areas (experimental).

Figure 3. Adult literacy rate by sex (%)



MATERNAL AND CHILD HEALTH

Reducing maternal and child mortality is one of the goals of MDGs. This section describes the health care behaviour of women during pregnancy, child mortality, and childhood immunization. Difference in mean weight of newborn children between

baseline (1.31kg) and experimental areas (1.59 kg.) was found statistically significant. In contrast, difference in mean weight of newborn child between experimental (1.59 kg) and control (1.51kg) areas were not significant. To prevent neonates from tetanus, pregnant women are being vaccinated with TT[6] during pregnancy. We collected information during survey to see whether the pregnant women immunized against tetanus during pregnancy or she was previously immunized against tetanus, which gives life time protection from tetanus. We observed that receiving TT injection during pregnancy was increased from baseline (9%) to experimental areas (14.3%) and the difference was statistically significant. In contrast, received TT during pregnancy was slightly higher in experimental (14.3%) areas compared to control areas (13.2%) but the difference was not statistically significant (Table 4).

According to the World Health Organization (WHO) recommendation, a mother requires four ante-natal care (ANC) from medically trained provider[7] during pregnancy (BDHS 2007). In our survey, we collected information from a mother whether she received four ANC from any medically trained provider.

The percentage of pregnant women receiving ANC from medically trained providers was higher in experimental areas (9.9%) compared to baseline (7.6%), and the difference was statistically significant. In contrast, the percentage of pregnant women receiving ANC from medically trained provider was insignificant between experimental and control areas (Table 4).

Receiving obstetric care from trained provider during pregnancy reduces maternal and neonatal mortality (BDHS 2007). We observed that a higher percentage of deliveries were attended by untrained TBAs and relatives. Deliveries attended by untrained birth attendants and relatives were lower in experimental areas (40%) than baseline (50.5%), and the difference was statistically significant. We also found that deliveries attended by untrained TBAs and relatives (not trained) were lower in experimental areas (40%) than control (46.9%) and the difference was statistically significant. Deliveries attended by TTBAs was significantly higher in experimental areas (34%) compared to baseline (30.7%) and control areas (31.3%), and the difference was statistically significant. A little proportion of deliveries nobody was attendant, e.g., TBAs, TTBAs in baseline and control areas (1.6%), while none of delivery was found in experimental areas. However, the differences were not significant. It must be noted that most of the deliveries were attended by untrained birth attendant/ relatives (Table 4).

The rate of delivery at government hospital was slightly higher in experimental areas (14%) compared to baseline (11.1%), but the difference was insignificant. We also observed that the proportion of deliveries at government hospitals was higher in experimental (14%) areas compared to control areas (12.2%), and the difference was statistically insignificant. The percentage of deliveries at non-government hospital/clinic was higher in experimental areas (12%) compared to baseline (6.1%), and the difference was significant. On the other hand, the proportion of deliveries at non-government hospital/clinics were higher in experimental (12%) than control areas (8%), and the difference was not significant (Table 4).

[6] A women need to take two doses of TT injection during pregnancy. May be a women need not to require TT injection during pregnancy if she was vaccinated before. It depends on the number and past timing of injection. A total of five doses of TT give life time protection against tetanus (BDHS 2007)

[7] Medically trained provider considered a doctor, nurse, midwife, family welfare visitor (FWV), Community Skilled birth attendant (CSBA), medical assistant (MA) or sub-assistant community medical officer (SACMO) (BDHS 2007)

Table 4. Child birth by mothers and care received behaviour during pregnancy (%)

Variables	Baseline (n=1,971)	End line		p value	
		Experimental (n=2,007)	Control (n=1,963)	1 vs 2	2 vs 3
	(1)	(2)	(3)		
Proportion of mothers gave birth in last 1 year	10.6	14.6	16.0	.000	.222
Mean weight of new born babies (kg.)	1.31	1.59	1.51	.032	.519
TT Immunization during pregnancy	9.0	14.3	13.2	.000	.309
Received four ANC from medically trained provider during pregnancy	7.6	9.9	9.0	.012	.332
Place of delivery					
Delivery at Govt. hospital/clinic	11.1	14.0	12.2	.249	.519
Delivery at Non Govt. hospital/clinic	6.1	12.0	8.0	.010	.063
Birth attendants at delivery					
Delivery attended by Trained Traditional Birth Attendant	30.7	34 .0	31.3	.042	.029
Delivery attended by Untrained traditional birth attendant/relatives	50.5	40.0	46.9	. 034	. 030
Nobody present during delivery	1.6	.0	1.6	.094	.094

Information on birth registration was collected from birth registration cards during interview. Among the children who were born in the past year, a small percentage of births were registered in baseline, experimental and control areas and there was no significant difference. (Table 5).

Among the children who were born in the past year, a similar proportion of children height and weight measured regularly among the three groups, e.g., baseline (4.6%), experimental (5.1%), and control areas (5%) and the differences were not significant (Table 5).

Table.5 Birth registration, measurement of height and weight of children born in the past year (%)

Variables	Baseline (n= 1,971)	End line		p value	
		Experimental (n=2,007)	Control (n=1,963)	1 vs 2	2 vs 3
	(1)	(2)	(3)		
Proportion of children born within last 1 year	10.5	14.7	16.0	.000	.239
Proportion of birth registration	2.0	2.4	1.9	.795	.392
Proportion of children with height and weight measured regularly	4.6	5.1	5.0	.486	.899

Data analysis shows that childhood immunization[8] rate was higher in experimental (91.4%) areas compared to baseline (85.8%), and the difference was statistically significant. Immunization of children was also higher in experimental (91.4%) compared to control (87.9%) areas and the difference was statistically significant (Table 6).

[8] *According to WHO guideline for childhood immunizations all children need to receive: a BCG vaccination against tuberculosis, three doses of pentavalent vaccine to prevent diphtheria, pertussis, tetanus, hepatitis and Hib, three doses of polio vaccine and measles vaccine. During interview our field workers asked mothers to show health card to determine whether the child had received vaccines.*

We asked mothers if there were any children under age 5 had received vitamin A capsule in the six months prior to survey. Result shows that the rate of receiving vitamin A capsule was higher in experimental (43.1%) areas than the baseline (17.1%), and the difference was statistically significant. On the other hand, rate of receiving vitamin A capsule was slightly higher in experimental (43.1%), areas compared to control (41.2%) but the difference was statistically insignificant (Table 6).

Table.6 Immunization of children (%)

Variables	Baseline (n=1,971)	End line		p value	
		Experimental (n=2,007)	Control (n=1,963)	1 vs 2	2 vs 3
	(1)	(2)	(3)		
Proportion of children immunized	85.8	91.4	87.9	.022	.027
Received Vitamin A by children less than 5 years	17.1	43.1	41.2	.000	.288

According BDHS data we calculated Infant mortality[9] by live birth. Infant mortality rate (IMR) in baseline was 77 per 1,000 live births. On the other hand, in experimental and control areas IMR was 44 per 1,000 live births.

KNOWLEDGE ON HIV/AIDS AND STATUS OF TUBERCULOSIS PATIENTS

Knowledge on HIV/AIDS[10] was higher in experimental areas (46.7%) compared to baseline (37.7%), and the difference was statistically significant. Knowledge on HIV/AIDS was also found slightly higher in experimental areas (46.7%) compared to control areas (43.6%) and difference was statistically significant. Detection of TB patients was higher in experimental areas (0.75%) than baseline (0.20%) and the difference was significant. In contrast, detection of tuberculosis patient between experimental (0.75%) and control areas (0.36%) was insignificant. Number of TB patients under treatment between experimental (0.25%) and control areas (0.20%) was significant. In contrast, no patient was found in baseline areas under treatment for TB (Table 7).

Table 7. Knowledge on HIV/AIDS and status of tuberculosis patient (%)

Variables	Baseline (n=1,971)	End line		p value	
		Experimental (n= 2,007)	Control (n= 1,963)	1 vs 2	2 vs 3
	(1)	(2)	(3)		
Knowledge on HIV/AIDS	37.7	46.7	43.6	.000	.051
Number of TB patient identified in households	.20	.75	.36	.013	.097
Number of TB patient under treatment in households	.0	.25	.20	.714	.047

[9] The probability of dying on first birth day

[10] *We asked respondent whether they have any idea about HIV/AIDS. In this regard, we asked them if they heard about HIV/AIDS, according to BDHS survey we also asked them about the most important messages on HIV/AIDS; Abstinence of sex, Be faithful to one uninfected partner and condom use (BDHS 2007).*

SAFE WATER, SANITATION, AND HAND WASHING PRACTICE

This sub-section describes the status of using tubewell water for drinking, access to arsenic-free water, sanitary latrine and hand washing practices after defecation by respondents in baseline, experimental, and control areas. BRAC has undertaken initiatives, through the MDG pilot project, to increase access to safe drinking water like tubewell water, using sanitary latrines, and also providing awareness on hygienic practices, i.e., hand washing practice with soap after defecation to project beneficiaries. Besides, BRAC WASH and microfinance programme have also been providing necessary support to their beneficiaries for installation of sanitary latrine and tubewell.

Table 8. Access to safe drinking water, sanitation facility, and used of hand washing agent after defecation in households (%)

Variables	Baseline	End line		p value	
	(n=1,971)	Experimental (n=2,007)	Control (n=1,963)	1 vs 2	2 vs 3
	(1)	(2)	(3)		
Drinking water source					
Tubewell	93.7	99.9	99.7	.000	.148
Well	6.3	0.1	0.3	.000	.148
Access to arsenic free water					
Proportion of tubewell tested for arsenic	75.2	80.2	67.0	.000	.000
Arsenic free drinking water	81.7	98.3	98.3	.000	.156
Sanitation facility					
Sanitary latrine	30.6	32.8	25.1	.000	.000
Use of hand washing agent after defecation					
Soap and water	28.7	38.2	35.0	.000	.188
Ash and water	21.5	24.7	23.4	.089	.213
Soil and water	27.0	34.3	34.6	.000	.733
Only water	22.8	2.8	7.0	.000	.000

Table 8 shows that a significant proportion of households in experimental areas (99.9%) have been using tubewell water for drinking than households in baseline areas (93.7%) and the difference was statistically significant. However, the proportion of who use tubewell water for drinking was almost same in both experimental and control areas. One the other hand, 6.3% of households use water from wells/*indra* for drinking in baseline areas, while only 0.1% of the households in experimental areas and 0.3% of the households in control areas use same source of water for drinking. So, use of tubewell water for drinking has increased in project intervention areas compared to baseline areas. The proportion of tubewell tested for arsenic was also increased significantly in experimental areas (80.2%) compared to baseline (75.2%) and control areas (67%), and the differences were statistically significant. On the other hand, a good number of households in experimental areas (98.3%) had access to arsenic-free water compared to the households (81.7%) in baseline areas and the difference was statistically significant. However, there was no observable difference between the households in experimental and control areas who have access to arsenic-free water.

Table 8 also shows that a good number of households in experimental areas (32.8%) were reported to have sanitary latrine[11] compared to the households in baseline (30.6%) and control areas (25.1%). The differences were statistically significant. We observed in GD sessions that most of the participants were well informed about the benefits of using sanitary latrine. They have clearly said, "*If the water seal is not broken and it can contain water then it is a sanitary latrine. Use of sanitary latrine prevents diseases, mosquitoes, insects and stink. Using non-sanitary latrine is unhygienic and it spreads stink and germs of diseases*." They also reported that earlier they did not have sanitary latrine but now they have. These changes have become possible because of the MDG pilot project activities.

In addition, Table 8 also shows that the status of using hand washing agents after defecation in the surveyed households of baseline, experimental and control areas. A good proportion of households in experimental areas (38.2%) were reported to use water and soap as an agent after defecation compared to baseline (35%) and control areas (28.7%). The differences between baseline and experimental areas were statistically significant, but experimental and control areas were not statistically significant. However, a slightly higher proportion of households in experimental areas (24.7%) used ash and water as an agent after defecation compared to baseline (21.5%) and control areas (23.4%), and the differences were not statistically significant. Besides, a significant proportion of experimental households (34.3%) used soil and water for hand washing.

STATUS OF LOAN FROM DIFFERENT NGOs AND PARTICIPATION IN INCOME GENERATING TRAINING

Access to credit was crucial for coping with unexpected crisis and smooth consumption in bad times. It was also important for capital formation to IGA (Islam 2005).

Table 9 represents the proportion of households in baseline, experimental, and control areas those received loan from NGOs in past year. A higher proportion of household members of experimental areas (37.5%) took loan from different NGOs compared to baseline (25.9%) and control areas (28.2%), and the differences were statistically significant.

Table 9 also shows that a good proportion of household members in experimental areas (37.2%) took loan from BRAC compared to baseline (15%) and control areas (30%). In contrast, the highest proportion of household members in baseline areas (45.1%) took loan from Grameen Bank compared to experimental (16.8%) and control areas (17.9%). On the other hand, a little higher proportion of household members in control areas (31%) took loan from ASA compared to baseline (20.1%) and experimental areas (27%). On the other hand, a large proportion of household members in experimental (41.6%) areas took loan from other NGOs compared to baseline (33.5%) and control areas (30.3%). Thus, after intervention of MDG pilot project, household members in experimental areas were more interested to take loan from BRAC microfinance programme compared to baseline and control areas.

[11] Definition of sanitary latrine and used: Latrine with two septic tanks and water seal or concrete ring (usually three rings) and also with water seal was considered as sanitary latrine. If latrine water seal has broken that latrine has not considered sanitary.

Table 9. Received loan from NGOs and participation in income generating training (%)

Variables	Baseline	End line		p value	
	(n=1,971)	Experimental (n=2,007)	Control (n=1,963)	1 vs 2	2 vs 3
	(1)	(2)	(3)		
Proportion of household members received loan from different NGOs in last year	25.9	37.5	28.2	.000	.000
NGOs from where loan received (Multiple response)					
BRAC	15.0	37.2	30.0		
Grameen Bank	45.1	16.8	17.9		
ASA	20.1	31.0	27.0		
Others	33.5	41.6	30.3		
Mean of last loan received (taka)	10,330	14,150	15,471	.000	.089
Proportion of members from households participated in income generating training	1.4	5.9	4.7	.000	.109

The average loan size for experimental households (Tk. 14,150) was much higher than the baseline households (Tk. 10,330), and the difference was statistically significant. However, the average loan size for control households (Tk. 15,471) was slightly higher than the experimental households (Tk. 14,150), but the difference was not statistically significant (Table 9).

Significantly higher proportion of household members in experimental areas (5.9%) participated in IGA training compared to baseline areas (1.4%) in last year. On the other hand, a little higher proportion of household members in experimental areas (4.7%) participated in IGA training compared to control areas (4.7%). The difference was not statistically significant (Table 9).

In GD session, participants reported that through IGA training, the animators and local people jointly formed local organization to create IGA (Box 1). It helped them to be self-employed and get rid of poverty. They also mentioned that animators' training increases their self-esteem. One of the participants mentioned that "*Previously I felt shy to speak a word in front of 2-3 people. After receiving animators training I am confident and I initiated and I have formed a local organization in my village."*

Box 1. *Ujjibak* training has changed the person inside me

I am Nazrul Islam Moznu of Village Charipara, Union Ghoga, District Mymensingh. While receiving the training I felt that I was becoming a new person. I realized the meaning of living as a human being after receiving the training. Ujjibak training made me face the man that lived inside me. I have deeply realized that we - all human being - are for each other. So, I have taken an oath at the end of the training that I must share my learning with others and we will try to develop our own village collectively. To achieve these goals I have discussed about sanitation, schooling of children, demerits of dowry system, adult education, etc. in almost every house of my village. Besides, I have done six campaigns in an adult education centre, two skill development training about various issues, and several workshops on nationality. I have made grown a poultry farm of 1,000 chickens for my own financial backup. I never could have done so many things if the training did not show me the way.

COMMUNITY PEOPLE'S ACCESS IN UNION *PARISHAD*

Participation in UP is assessed though the respondents' access to UP in baseline, experimental, and control areas. The project expected that people of experimental areas have increased access to participation in UP compared to baseline and control areas.

Table 10. Access in UP in the past year and community people's satisfaction on UP activities (%)

Variables	Baseline	End line		p value	
	(n=1,971)	Experimental (n=2,007)	Control (n=1,963)	1 vs 2	2 vs 3
	(1)	(2)	(3)		
Proportion of members from households visited *union parishad* chairman and member in last one year	23.2	27.7	16.9	.001	.000
Average meeting with UP chairman/member in last year	2.8	5.2	2.4	.000	.058
Reason of visiting (Multiple response)					
Getting all kind of certificates, e.g. identity card, birth certificate, citizenship certificate	28.3	40.3	27.7		
Getting all kind of services, e.g. tubewell, VGF card, relief, food for work	35.5	71.2	64.5		
Getting solution for social or financial conflict, e.g. women abuse, land disputes, village politics conflict	3.3	18.5	19.6		
Others	22.1	0.0	0.0		
Percentages of households who mentioned that received services from UP is a right as a citizen	96.4	98.7	94.3	.000	.001
Community people satisfaction on union *parishad's* performance					
Highly satisfied	18.3	9.4	9.5	.000	.950
Moderately satisfied	60.1	55.7	61.8	.004	.000
Not satisfied	21.6	34.9	28.7	.000	.000

Table 10 shows the level of access to participate in UP among the three groups of people, i.e., baseline, experimental and control areas. A little higher proportion of the household members (27.7%) in experimental areas met with UP chairman and members compared to baseline (23.2%) and control areas (16.9%) in the past year and the differences were statistically significant. On an average, of five meetings were convened with UP chairman and members in experimental areas while three and two meetings took place in control and baseline areas respectively, and the differences were statistically significant. As a result, after introducing the MDG pilot project, the average number of meeting has increased which held with UP chairman and members at UP compound in last year.

The proportion of household members to get identity card, birth, and citizenship certificate from UP was much higher in experimental areas (40.3%) than baseline (28.3%) and control (27.7%) areas. Similarly, a higher proportion of household members in experimental areas (71.2%) visited the UP to get different types of services, e.g., VGF card, tubewell, relief, and food for work compared to baseline (35.5%) and control areas (64.5%). A good number of household members in experimental areas (18.5%) participated in the UP court to get solution of social and financial conflicts compared to baseline areas (3.3%). In contrast, a higher proportion of household members in control areas (19.6%) also participated in the UP court for same purpose compared to experimental areas (18.5). In experimental areas, 98.7% of the households reported that receiving services from UP was a right as a citizen, while 96.4% of the households in baseline areas and 94.3% in control areas reported the same and the differences were statistically significant (Table 10). The GD findings reveal that the most expected services for the rural people are: income generating interventions; pro-poor support, continued supply of agricultural inputs and supplies; education and community healthcare services, micro credit, relief, food for work, VGD/VGF, card, etc. However, very few of the desired services are either directly or indirectly provided by the UP.

Table 10 also shows that a higher proportion of households in experimental areas (34.9%) were not satisfied with the types and nature of services being delivered by the UP compared to baseline (21.6%) and control (28.7%) areas and the differences were statistically significant. On the other hand, a good number of households in baseline (60.1%) and control areas (61.8%) were moderately satisfied with the same issues compared to experimental areas (55.7%), and differences were also statistically significant. Similarly, a higher proportion of households in baseline areas were highly satisfied with the types and nature of services being delivered by the UP compared to experimental (9.4%) and control areas (9.5%). The difference between baseline and experimental areas was statistically significant, but the difference between experimental and control areas was statistically insignificant.

In GD session, the participants mentioned that before the MDG project they thought UP was only for the chairman and members. Now they realized that UP is for common people. As a citizen of Bangladeshi they have right to get all kinds of facilities from the UP. Now they are more aware about the service of local government as well as UP's role and activities. So, they could negotiate with the members and chairman of UP for receiving services from the UP (Box 2).

Box 2. A new beginning for Kannan Bala as a member of *Ghoga* Union *Parishad*

When people come to know that I spent 2,000 taka only in the UP election, the situation becomes ridiculous. I had to try a lot to make them believe. It is true that I have not spent more than 2,000 taka but I spent a huge cooperation from my Samiti members and colleagues which worth than a crore. Simultaneously, the trust and love of people has become possible for me to win an honorable member of UP. Along with these, 'The Hunger Project' has also encouraged me in the UP election. Along with my Samiti members I visited door to door in the village and asked them to stand beside the vulnerable women of the village. They have provided me the opportunity to work for them to increase access to social safety nets and welfare services. All of these have become possible because of "The Hunger Project" BRAC.

Table 11. Respondents faced corruption or unfair judgment and protested them in last year (%)

Variables	Baseline	End line		p value	
	(n=1,971)	Experimental (n=2,007)	Control (n=1,963)	1 vs 2	2 vs 3
	(1)	(2)	(3)		
Proportion of respondents victimized by any corruption and unfair judgment	1.5	5.4	3.8	.000	.013
Protested by respondents	65.5 (29)	49.5 (109)	58.1 (74)	.127	.257

Table 11 shows that the proportion of the respondents who were subject to be victim of any corruption and unfair judgment was higher in experimental areas (5.4%) compared to baseline (1.5%) and control areas (3.8%) in last year. The differences were statistically significant. On the other hand, a lower proportion of households (49.5%) in experimental areas protested when they were being victimized by any corruption and unfair judgment compared to baseline (65.5%) and control areas (58.1%).

EXISTENCE OF LOCAL ORGANIZATIONS IN *PARAS*

In this part we have investigated the existence of local organizations which were formed by NGOs or individuals during the last-one-and-half years.

Table 12. Organizations in *paras* (%)

Variables	Baseline	End line		p- value	
	(n=09)	Experimental (n=41)	Control (n=09)	1 vs 2	2 vs 3
	(1)	(2)	(3)		
The formation of local organizations with the initiatives *(Multiple response)*					
NGOs	80.8	20.9	27.0		
Personal	6.8	84.5	80.0		
Don't know	12.3	0.9	0.1		
Proportion of *para* organization functional	89.0	99.1	92.9		
Mean of total member	20.5	35.9	25.2	.000	.072
Mean of total female member	9.8	9.9	1.8	.927	.026
Mean of total male member	10.8	29.0	23.3	.000	.311
Mean of capital(Tk.)	15,166	73,754	140,714	.000	.035

Table 12 shows that among the 59 local organizations in *paras* the highest number of organizations was formed by NGOs in baseline areas (80.8%) compared to experimental (20.9%) and control (27%) areas. In contrast, among local organizations in *paras* the highest number of organization was formed by person or individuals in experimental areas (84.5%) compared to baseline (6.8%), and control areas (80%). A higher proportion of organization was functioning in experimental areas (99.1%) compared to baseline (89%) and control (92.9%) areas. The mean of total members of these organizations were highest in experimental area (36) compared to baseline (21) and control areas (25). Similarly, the mean numbers of male and female members of these organizations were also highest in experimental areas (female 9.9 and male 29)

compared to baseline (female 9.8 and male 10.8) and control (female 1.8 and male 23.3) areas. The mean capitals taka of these organizations were higher in experimental areas (Tk. 73,754) compared to baseline areas (Tk. 15,166). The difference was statistically significant. In contrast, the mean of capitals of these organizations were much higher in control areas (Tk. 140,714) compared to experimental areas (Tk. 73,754) and the difference was statistically significant.

CONSTRAINTS OF THE PROJECT

The animators observed that it was quite difficult to work on voluntary basis. Without any remuneration the animators were often reluctant to attend follow-up meetings and other voluntary activities. After receiving training the animators were so excited to work for the community, but when they started to work at community level they need to travel different areas within the union, they had to arrange meetings or courtyard meetings with local people. According to the animators, they were not paid for this activities and the project did not bear cost of their travelling cost. So, they became reluctant to work. One of the animators said that, *"You people really wanted to do something good for common people, as an animator we also wanted to do something good for our community. But we were also poor, without any remuneration it was quite difficult to spend our time in these types of activities."* One of the union facilitators mentioned that if the project at least bears the transportation cost of the animators it would encourage them to work spontaneously.

The animators also mentioned that sometimes local chairman and members did not listen to them. They did not give them importance while they came to union *parishad* on behalf of common people about receiving services from union *parishad* such as providing VGF/VGD card, widow/old age person allowance, and subsidy of installment of tubewell, sanitary latrine, etc.

DISCUSSION AND CONCLUSION

The aim of this study was to asses MDG indicators to measure the impact of MDG pilot project. We have found that in experimental areas the enrollment rate of children (6-10 years) in primary education, adult literacy rate, knowledge on HIV/AIDS, childhood immunization rate, access to safe water, availability of sanitary latrine and participation in IGA training were higher than those of baseline and control areas. However, there are still some challenges which needed to be addressed such as treatment - seeking behaviour during pregnancy, birth registration, and satisfaction of common people on local government.

The primary school enrollment rate of children aged between 6-10 years was increased from baseline to experimental areas. Primary school enrollment rate of children (6-10 years) in experimental areas for boys was 93.4% which was much higher than the national school enrollment rate of boys (82.61%). Primary school enrollment rate of girls in experimental areas was 95.1% and this rate was higher than the national school enrollment rate of girls (86.99%) too (BBS 2011). All these indicate that MDG pilot project has raised awareness on the importance of children (6-10 years) enrollment in primary school which has positive effect on the school enrollment of children.

We also observed that adult literacy rate was higher in experimental areas compared to baseline and control areas. Adult literacy rate for 15 years and above in experimental areas among male (61%) was slightly lower than the national adult literacy rate for same age group (63.84%). On the other hand, adult literacy rate of female (57.12%) in experimental areas was slightly higher than national adult female literacy rate (55.71%) (BBS 2011). MDG pilot project conducted a number of adult literacy centres where illiterate rural women got opportunity to be literate. So, we speculate the project positively impacted on adult literacy rate.

After the MDG project intervention, the rate of pregnant mothers receiving ANC from medically trained provider and delivery assisted by the medically trained personnel increased in experimental areas than baseline. But, in the case of similar comparison between experimental and control areas the rates were almost similar. The rate of pregnant mothers receiving ANC from medically trained provider in experimental (9.9%) and control (9%) areas were much lower than those covered by the Bangladesh Maternal Mortality Survey data; where receiving four ANC from medically trained provider was 23.4%. We found that a moderate percentage of deliveries in experimental and control areas took place in govt. and non govt. facilities and the deliveries were assisted by the medically trained provider. The number of delivery assisted by medically trained provider in experimental areas (in Govt. hospital 14%, non Govt. hospital 12%) was similar to the number of maternal mortality survey data (26.5%) (BMMS 2010). We also observed that majority of deliveries were assisted by the untrained provider in experimental areas. Cultural and social norms on restriction of women mobility, preference of local untrained service provider, distance to health facility and economical hardship were also the causes of selecting these types of care (Barnett 2006). So, this pilot project of MDGs should address the issue of pregnant women's healthcare seeking behaviour during delivery. Because receiving treatment from untrained provider can increase maternal mortality (Barnett 2006).

Childhood immunization coverage was also increased after the project intervention. Childhood immunization rate was higher in experimental 91.4% areas than the baseline (85.8%) and control (87.9%). Childhood immunization rate was also much higher than the national survey data (86%) (BDHS 2011). This may have caused because BRAC health programme is active in this area and MDG pilot project also tried to create a linkage with BRAC health worker and community. So, the project has great impact on increasing childhood immunization. But the rate of birth registration of children had no change in baseline, experimental and control. So, the MDG pilot project should focus on this issue to increase birth registration.

The project has also positive effect on the level of increasing knowledge on HIV/AIDS. The findings shows that knowledge on HIV/AIDS was higher in experimental than the baseline and control areas. One of the MDGs was to combat against HIV/AIDs. Awareness on HIV/AIDS could prevent people to engage in high risk sex behaviour related to HIV/AIDS (Gibney *et al.* 1999).

The target of MDG 7 could be having on integrated development and management of water resource system. In response to MDG, Bangladesh has fixed its target to ensure that 100% of urban and 96.5% of rural population will have access to safe water by 2015. Government, NGOs, and donor agencies are involved through both soft and hardware programmes towards ensuring safe water. The findings reveal that a significantly higher proportion of households in experimental areas (99.9%) have been using tubewell water for drinking compared to baseline (93.7%) and control areas (99.7%). This result substantiates existing research findings that reporting 90% of the rural population use tubewell water for drinking (Nahar 1997). The GDs

mentioned that without project intervention it might not be possible to ensure 100% safe water use with the involvement of local people. The study findings show that the positive role of MDG pilot project and BRAC WASH programme is increasing the use of safe water in the study areas. On the other hand, arsenic prevalence in tubewell water has been reported to be a major challenge in Bangladesh due to arsenic contamination. As a result access to safe water is estimated to have dropped from 97% to 80% nationwide (UNICEF 2000). The study found, a higher proportion of households in experimental areas (80.2%) have access to arsenic free drinking water compared to baseline (75.2%) and control areas (67%). This might be attributed to the awareness activities implemented by the project regarding safe water use. As part of the programme interventions, 250 tubewells were tested for arsenic and 107 motivation campaigns were organized for using safe drinking water in the past year (Annual report 2010-2011). The impact of such intervention is reflected on the higher incidents of use of tubewell water and arsenic - free water in the project intervention areas (experimental) compared to comparison areas, baseline and control.

A significant improvement was evident in experimental areas (33%) regarding use of sanitary latrine compared to baseline (31%) and control (25.1%) areas. Also practicing hygienic use of latrines increased from the baseline. Similar improvement was also observed in using soil/ash, soap and water after defecation. It is essential to know the hygienic rules of using latrines because only safe water cannot protect diseases like diarrhoea, dysentery and cholera (Esrey *et al.* 1991). From the BRAC WASH programme, as part of software support, voluntary health workers (*Shasthya shebikas*), programme organizers, programme assistants, and managers visited door to door on a regular basis to disseminate knowledge and monitor practice related to sanitation and hygiene which were likely to have the impact on these positive behavioural changes. Hence, there is still room for improvement because of the compliance deficiency. Findings reveal that hand washing practices with soap and water after defecation increased in experimental areas compared to baseline and control areas. GDs in intervention areas reported hand washing with other agents like ash, soil, and water after defecation particularly when soap was not available. The reason behind this might be affordability of soap, as most of them could not afford more than one soap for hand washing and other purposes. They kept the soap in or near the latrine or tubewell area, but not inside their house (Akter and Ali 2010). However, in the GD session participants mentioned that they have good knowledge of washing hands at critical times with soap (e.g., before and after eating), but it did not correspond to the knowledge retained in general. In another study, similar findings reveals which described that community people have good knowledge on hand washing with soap at critical times but few of them have habit of practicing (ICDDR,B 2009).

Receiving loan from BRAC and ASA was highest in experimental areas compared to baseline and control areas. Furthermore, members from households participated in income generating training on sewing, poultry, cattle rearing, agriculture, fisheries, and apiculture, etc., were relatively higher (6%) in experimental than two comparison areas, baseline (1.4%) and control (4.7%). IGA training and micro-credit generates income opportunity for vulnerable people to reduce poverty and hunger in rural areas of Bangladesh (Rahman 1999; Hashemi and Rahman 1996).

The UP Act 2009 has rightly recognized the importance of community participation, transparency, and accountability by including specific sections on formation of ward committees, participatory planning, access to information, and extended authority of the Standing Committee, etc. (Aminuzzaman 2008). However, corresponding rules/regulations to operationalize the policy is yet to be done.

Compared to the baseline and control, the respondents of the intervention areas became more aware about the services of UP and they believed it was their right as citizen. A higher proportion of household members in experimental areas visited the UP in the past year compared to baseline areas. However, most of the community people were not satisfied with the UP services and performance. The animators of the project also mentioned that sometimes the members and chairman of UP did not give them importance while they went to UP to receive aids. So, the project should emphasize the above mentioned issue to increase the coordination between the project animators and the local government.

The study found that there were 59 local organizations present in *paras*. The member of local organizations formed with individual initiatives was highest in experimental areas (84.5%) compared to baseline (6.8%) and control areas (80%). GDs in intervention areas reported that through IGA training, the animators or volunteers and local people jointly formed local organization to create IGA. So, we can say that the project has positive effect in creating IGA.

In conclusion, we can say that according to the MDG-pilot project indicators and its positive effect on school enrollment of children, adult literacy rate, knowledge on HIV/AIDS, childhood immunization rate, access to safe water, sanitary latrine facility, and participation of IGA training in achieving MDGs by participatory approach. However, receiving ANC during pregnancy, birth registration, and satisfaction of common people were still in challenges.

RECOMMENDATIONS

The following recommendations may be taken into consideration in devising future policies for extension of MDG pilot project

- Encourage mothers to assist their delivery by medically trained provider.
- Increase awareness on birth registration.
- Arrange remuneration or incentives for animators.
- Increase number of IGA training for local people and animators.
- Create a proper chain for marketing perishable goods.
- Provide free of cost of sanitation and tubewell for the poor and extreme poor people.
- Relationship between local government and animators should be improved to create an effective partnership with local Government and community.

REFERENCES

Aminuzzaman S (2008). Governance and Politics: Study on the Interface of Union Parishad, NGO and Local Actors, Dhaka: Institute for Environment & Development (IED).

Akter T and Ali ARMM (2010). Factors influencing Knowledge and Practice of hygiene behaviours in water, sanitation and hygiene (WASH) intervention areas. Dhaka: BRAC (Unpublished).

Annual report of the Hunger project (2010-2011), (Unpublished)

Bangladesh health demographic survey (2007).

Bangladesh health demographic survey (BDHS) (2011). Preliminary report: Dhaka. (Unpublished data)

Bangladesh Bureau of Statistics (BBS) (2011). Preliminary report on household income and expenditure survey-2010. Dhaka: Bangladesh Bureau of Statistics.

Bangladesh Bureau of Statistics (BBS 2011). Report on the Bangladesh literacy survey 2010. Dhaka: Bangladesh Bureau of statistics.

Bangladesh Maternal Mortality Survey (BMMS) 2010 (Preliminary results): Dhaka and USA: NIPORT, ICDDR,B, MEASURE evaluation and UNC-CH. 2010.

BRAC (2008). WASH Programme of BRAC: towards attaining the MDG targets, baseline findings. Dhaka: BRAC

Barnett S, Azad K, Baura S, Mridha M, Abrar M, Rego A, Khan A, Flatman D, and Costello A (2006). Maternal and newborn-care practices during pregnancy, childbirth, and the postnatal period: A comparison in three rural districts in Bangladesh. *Journal of health population and nutrition* Dec; 24(4):394-402.

Esrey S, Potash J, Roberts L, Shiff C (1991). Effects of improved water supply and sanitation on ascariasis, diarrhoea, dracunculiasis, hookworm infection, schistosomiasis, and trachoma. *Bull WHO* 69(5): 609–21.

General Economic Division (GED) (2009).The millennium development goals Bangladesh progress report: Dhaka:GED.

Gibney l, Choudhury P, Khawaja Z, Sarker M and Vermund SH (1999). Behavioural risk factors for HIV/AIDS in a low-hiv prevalence muslim nation: bangladesh. *Int j std aids,* march; 10(3): 186-194.

Gillis N (2005). Adaptive vs. prescriptive policymaking: community empowerment through the framework of complexity science *In:* Gillis N, Souethy S (Editor) A community dialogue for meeting the millennium development goals : Fordham university press.

Hashemi S and Rahman ZH (1996). Rural credit programmes and women's empowerment in Bangladesh",*World Development* 24 (4): 635-53.

Hausmann R, Tyson LD, Zahidi S (2012). The global gender gap report 2012, Switzerland: World Economic Forum.

ICDDR,B (2008). What do we know about handwashing, sanitation and safe water use in Bangladesh? www.icddrb.org/publication (accessed on 12 October, 2009).

Islam N (2005). Dhaka Now: A Contemporary urban development, Dhaka: A BGS Publication.

Nahar N (1997). Arsenic: silent catashtrophe. *Bul Environ Health* 1: 1-4.

Rahman A (1999). Micro-credit initiatives for equitable and sustainable development: who pays? *World Development* 27 (1): 67-82.

Reid NJ (2000). Community participation: USDA rural development.

UNICEF (2000). Arsenic mitigation in Bangladesh. Dhaka: UNICEF. UNICEF media brief.