

FISHERIES RESEARCH SUPPORT PROJECT (FRSP)

THIRD ROUND LIVELIHOOD IMPACT MONITORING REPORT
OF
BEEL USER GROUP (BUG) MEMBER



THE WORLD FISH CENTER AND CBRMP-LGED

DHAKA - 2012

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List of Acronyms and Abbreviations

ASA	: Association for Social Advancement
BRAC	: Bangladesh Rural Advancement Committee
BUG	: Beel User Group
CBFM – CLP	: Community Based Fisheries Management – Chars Livelihood Project
CBFM – SSEA	: Community Based Fisheries Management in South and South East Asia
CBO	: Community Based Organization
CBRMP	: Community Based Fisheries Management Project
FGD	: Focus Group Discussions
FRSP	: Fisheries Resource Support Project
HH	: Household
IFAD	: International Fund for Agricultural Development
IGA	: Income Generating Activity
LGED	: Local Government Engineering Department
MFI	: Micro Finance Institute
NGO	: Nongovernmental Organization
PRA	: Participatory Rural Appraisal
SCBRMP	: Sunamganj Community Based Resources Management Project

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EXECUTIVE SUMMARY

The poverty alleviation task believes that sustainable livelihoods approaches are a practical way of thinking about, planning and implementing development. The resources they use or the institutions they serve are the priority indicator to bring all relevant aspects of peoples lives into development planning and implementation. It stresses the importance of being able to respond to changing livelihood circumstances. This report focuses the livelihood monitoring result of the fisheries component of the Community Based Resources Management Project (CBRMP) has been adopting integrated rural development approach in Sunamganj haor basin to produce positive impact on life and livelihoods of the target communities. The third round Beel User Group (BUG) livelihoods impact monitoring has drawn comparison with other BUG studies. The study used quantitative tools to measure the third round impact monitoring similler to first round sample survey in the same set of households. Socio-economic profile of sample households reached by CBRMP projects improved overtime; however, to achieve complete poverty reduction is still long way to go as poverty is also influenced by natural hazards and other socio-economic factors. The level of poverty has been declining due to improvement of other livelihoods indicators compare to pre-project situation.

Current livelihoods monitoring of BUG members undertaken just after two year of second round livelihood surveys conducted in March – May '2010. This report focuses on the same set of indicators covered in the first round survey; livelihood monitoring explores aspects of the population profile, income, occupation, landholding, assets, food security, women mobility, institutional involvement and credit utilization. A modest attempt has been made in this report to make comparison between first round survey result to second round results across all indicators.

Role of Social and Human Capital in Livelihoods

Membership in local institutions is positively correlated with wealth across all the defined membership categories within the community, especially membership in integrated projects like CBRMP. Present data shows that empowerment of general members have been shifted positively. Membership in BUG shows enhance ownership of resources, better empowerment in the society and improved status in the community. Women of participating households got more mobility to other financial places/institutions (Market/Bazaar, Banks and Waterbodies) than the first round survey.

The CBRMP has been continuously following community approaches (involving fisher and other non fisher) poor households, thus allowing increased numbers of waterbodies to increased number of fisher households in the project area. Increased participation provided access services and better linkages with government authorities and CBOs itself.

Higher literacy levels are strongly correlated with the ability to utilize an increased number of services and can possibly be associated with better living conditions and higher status as well. Lack of transportation and communication is one of the main problems in Haor area to access to educational institutions. The CBRMP interventions has established better road networks at the village level compare to the pre project period. In primary level overall schooling rate increased about 5% whereas, education above class V experienced an increase of around 3%. During baseline survey to statistics of 2012 enrollment to school has gradually increased and the proportion of old age and children below age 5 remain almost similar.

Livelihoods Strategies

Income and Expenditure

Income is an important indicator representing financial capital, income activity represent the total percentage of households income derived from each particular source, in which contribution from fishing is highest in all studies. In 2012 the second highest income came from agriculture related activities followed by non-agricultural labor and fish related trading, whereas in 2004 the second highest income came from nonagricultural labor.

It is revealed that average income increased by about 28% from 2010 livelihoods study whereas, income increased by 180% compare with base income in among the participating households. Fishing is the income source with the highest contribution in all study periods but there are differences amongst the other categories. Study reveals that in 2004, 43% of income derived from fishing but in 2012, 27% income contributed from fishing which is about 76% higher than the base year. Current table also describe proportionate contribution of other sources of households income. This scenario has been changed due to better access to resources, development of human capital, access to services and engagement in income activities.

Present impact monitoring survey reveals that 40% of households' expenditure was spent on food of which 17% was spent on rice/wheat whereas in 2004, 69% was spent on food and 49% on rice/wheat which shows a proportionate decrease. At the same time fish, meat and egg consumption has significantly increase from base year to current year, it was only 4% of total expenditure but now it is 8%, on the other hand cash expenditure about 4 time higher in 2012 than 2004. This reveals a proportionate decrease of households expenditure on food items which has reduced by about 29% within the project of years. Despite the high cost of food grain, the second highest expense in house repairing purposes, reflects better living standard over the period. In non-food items expenditure second highest spent for clothing in 2012 this was followed by house repairing and loan repayment.

Access to savings and credit

Over the project period importance of non-formal sources of credit has reduced but still people has need this credit to meet up household emergency needs like medical treatment, wedding of daughters or to acquire a job in home and abroad. Current study shows that number of non-formal credit declined rapidly from 2010 to 2012 which is a positive change in financial capital indicator as amount of income has increase at the same time per households. Data 2012 suggests that among 70 loan recipients, 36 households to loan from mohajan, followed by 12 households acquired loan from local society and 15 households borrowed without interest. Current livelihoods report shows that the average number of non formal loans has decreased but the amount of money loaned has on average increased. This can be due to the significant number of loans provided by the *mohajan* to meet up people's emergency needs. Even with this dominance from this non formal loan provider, Micro Finance Institutions (MFI) and projects like CBRMP are still playing important roles in supplying finance to these poor households.

Productive assets

Use of total land holding (per household) is bigger in Sunamganj district than the national average which is 0.83 acres (Statistical Pocket Book 2008). Average homestead area is also higher among sample households than the national average of 7 decimals per holding. The current study data revealed that owner-operated area has reduced by about 7 decimals, while homestead area has increase by about 2 decimals per households, sharecropped area per household increased

by about 20 decimals compare to base year. Average pond size has remained same within the project period. All categories of people used to cultivate portions of land from local landlords. As most of them do not cultivate their own land, they usually give their land out on one year fixed lease or to sharecroppers. Some of them are absentee land owners who reside in the district town.

Although housing is considered to be a productive asset, the present study did not analyze the overall quality of housing, because in the study quality of housing has determined by household materials. Average area of dwelling increased by 27 sqft from the base year, wall material also improved as house with tin material has increase from 6% to 29% and brick was also increased in about 3% compare with the base year. Currently about 90% households has tin roof, 4% has brick roof, which is significantly higher than the base year.

Due to ecological conditions, pond fish culture is not common in the project area and only 15% of households own a pond or ditches (frequently submersed by flood water). Ponds are owned mostly by non fisher households, and unlike other parts of the country.

About 59% households have access to livestock which is the preferred rearing activity at the household and adjacent area, while in 2004, 42% households had livestock. The study also reveals that luxury assets such as radio, television, gold and mobile phone has increased notably. Assets such as fishing nets, mobile phones, ornaments, furniture (beds/chair/tables/showcase), radios, televisions, and bicycles are most commonly held by households. Comparing four sets of data from the BUG members' households, there are positive changes in most of the items. On the other hand fishing net and boat ownership decreased within project period.

Institutional Involvement

Institutional membership is a good proxy of social capital, because it provides members with network access to material and non-material goods and/or services. The most commonly accessed institution/project is CBRMP and other local NGOs. Duration of membership varies from 1 to 6 years and average membership per household is just above one. Savings accumulated per household was highest by CBRMP members (Tk 1,958) followed by ASA members (Tk 1,646) in 2008 but in 2012 CBRMP participants accumulated savings after partial withdrew is Taka 1541 while, current data suggest at present highest saving accumulated by BRAC participants is 2831. Average number of loans within the last 12 months is about 1 unit across all categories of participants in different organizations and the amount varied from Tk 2,000 to Tk 16,000 and local NGOs are now dominates in credit supply to participants.

Women Mobility to Services

Current study reflects that in the last two years womens' mobility in most places has increased. Highest 84.6% households women visited waterbodies for collecting natural resources like fuel, fodder and water, followed by involvement in agric work. On the other hand women mobility in service place like Market (43.2%), Bank (24.8%), Union Parishad (53.6%) and Upazila head quarter (55.2%) has increased show better women empowerment to deal with the offices. Women visited hospital or clinic (40.8%) in 2012 is much lower than 2008, shows better health condition of participating households. The difference between both years lied in a higher number of women visiting the market, the banks and relatives, and less hospital (Table 17). Within the home, household's chores are mainly carried out by women, including washing, cleaning, cooking and other domestic activities. The most common involvement in beel is fetching water, fuel wood collection and some women are involved in vegetables gardening in dykes.

Food Security

Achieving the MDG targets securing food security for the poor is a prime task for all development projects. In this connection project provided development services improved food security status of the sample households. About 64.8% has no food crisis at all throughout the year and 31.2% households food shortage 1-3 months in a year which reflects that about 42.4% households have better food security. In fact, *haor* area food insecurity depends on the intensity of flash flood which causes crop damage. The number of months affected by flood determines whether the household will have sufficient food or not.

The livelihoods monitoring of BUG members has been carried out to presents an array of multiple and overlapping vulnerabilities for the fisher community in CBRMP. So far description of information suggest better livelihood situation in the project area however, to achieve sustainable poverty reduction need long term comprehensive development programs supported by government agencies.

RECOMMENDATION:

- Considering vulnerability of the phase out households of (BUG) members strong follow up needed to monitor institutional performance by the line agency like LGED and DoF. Without institutional linkages sustainability of CBO can hamper long term sustainability of CBO organized.
- CBRMP should link CBOs with reliable micro finance institute after phasing out from Community Organization, as micro credit has been playing a leading role to mitigate households urgent financial crisis. Options of long term credit for BUG member households may provide better access to other income opportunities like agriculture, business, livestock keeping, waterbody leasing and fulfilling emergency basic needs.
- Since the CBRMP is going to wind up in 2014, the number of refreshers skill development training should provide by the SCBRMP to create sustainable income options for the phase out participants. Otherwise sustainability of local institutions in the project area will be in crisis. More attention should be paid to reach greater proportion of participants to develop skills.
- Social position of women's in the project area gradually improving due project intervention but still long term strategic plan is required to uplift backward sections of women, thus can reduce gender disparities in the project area. Establish linkage with other development agencies will empower and provide social mobility of the women.
- A considerable number of BUG members receive technical information from the fish catch bio diversity monitoring to manage the respective waterbodies. More linkages among CBO is needed to cope up with the crisis and thus good CBOs can contribute other to establish better fisheries management practice.. The project can act as a catalyst to enable fisher households to bring under social networks with government and private service providers. Simultaneously, more support should ensure to develop institutional capacity to improve active participation in all sorts of activities and equity of resource distribution and utilization.
- The study result reflected positive changes in livelihoods indicators but to draw a concrete conclusion further study is needed with comparison with control set of households to see the causal relationship among different development supports.

1. Introduction

1.1. Background

The Community Based Resource Management Project (CBRMP) has been working to improve the economic well being of the participating households directly, despite of other many indirect benefits to the adjacent community peoples of the target area. As integrated project main benefits incur are access to essential services and resources, and to diversify livelihood options in Sunamganj. Often the district is characterized by remoteness, flash flooding and the neglected of nation development. Usually vulnerability and livelihood insecurity were severe in the district, particularly among poor households, the project has targeted group includes landless, marginal and small-scale farmer households and women.

The CBRMP has been implemented by the Local Government Engineering Department (LGED). The overall objective of CBRMP is to alleviate poverty of 90,000 households in Sunamganj through ensuring their access to resources and building their other livelihood capitals (Figure 1). The project comprises five components: a) Labor Intensive Infrastructure Development; b) Community Based Fisheries Management; c) Agriculture and Livestock Development; d) Microfinance Services; and e) People Centered Institution Building. The project commenced in January 2003 and will end in June 2014. The total funding of the project is BDT 20,046.63 Lk.

The WorldFish has been assigned for the impact monitoring of the fish catch bio-diversity and livelihoods of the BUG members households in October 2007 and CBRMP providing fund for these task called Fisheries Research Support Project (FRSP). This report is a modest attempt of third round BUG members households livelihoods impact monitoring. The livelihood study conducted bi-annually, after the first round of monitoring in 2008, subsequent two round held in 2010 and 2012. This report also captures the result of BUG member baseline profile data analyzed by the WorldFish in 2011. In order to compares the indicators from the baseline data to the third round monitoring results of 2012, common set of livelihoods indicators considered in all reports.

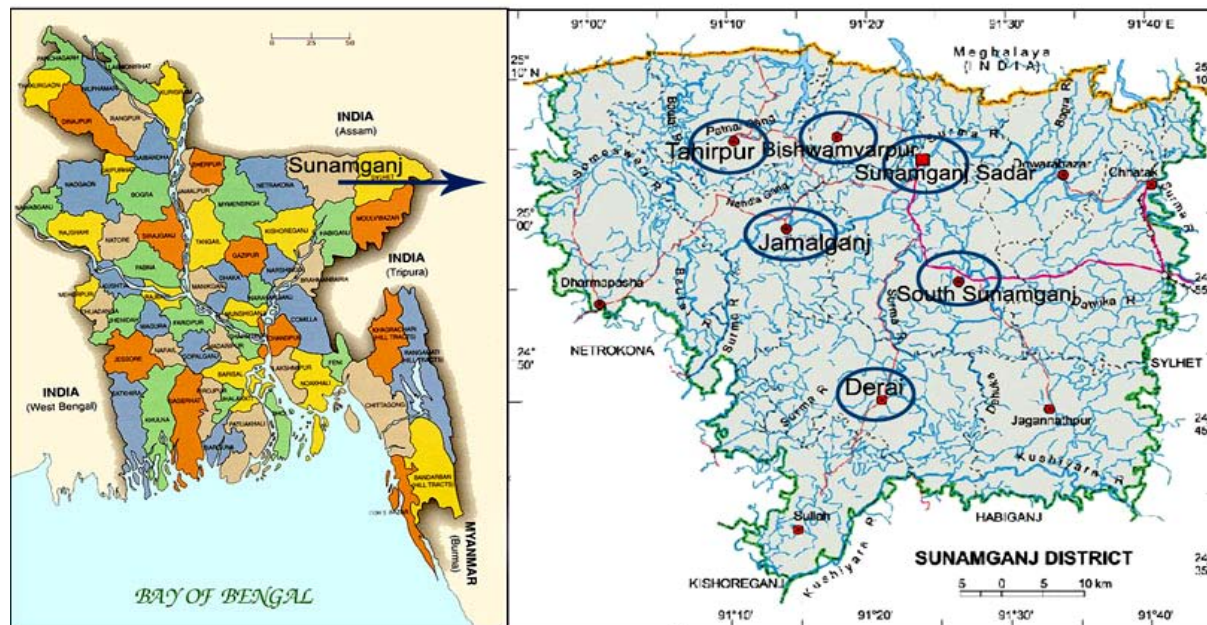
This analysis is carried out against a framework of community based elements provided to the participating households to meet their basic needs through fisheries management. It can reduce poverty, diversified occupation; enhance income, food safety, improved sanitation, capacity building, women mobility and access to resources by building institution. More widely, CBRMP project giving people a greater voice can give them access to institutions, such as Community Based Organization (CBO)) and ownership to the common resources which they were previously excluded.

This report captures the results of several livelihood impacts monitoring of BUG members households, it will shows the trend of changes of a set indicators considered for livelihood development in the CBRMP project period. The intended outcomes of the monitoring are:

- To quantify changes in livelihoods among project participants;
- To understand the causes behind these livelihood changes;
- To analyze the periodical impact on the BUG members over the project time.

- i) Disseminate findings to a wider level; national and international audience.

Figure 1: Sunamganj Community-Based Resource Management Project area.



1.2. The Livelihood Monitoring of BUG Members

Third round livelihoods study prepared based on the comparative report of other accomplished impact monitoring changes over time, from baseline household profile information to third round monitoring has tried to identify livelihood indicators that enable CBRMP to understand how fisheries management programs impact upon the lives of the project participants from 2004 to 2012.

1.3. Scope of work

The WorldFish Center has been collecting data from the same sample of BUG member households that was randomly sampled in 2008 to make a comparison between the information of the two years; from the first round to second and third round monitoring. The WorldFish has intended to analyze this data and prepare a comprehensive report.

It was intended that the WorldFish will use the same set of sample households that had been drawn in the first round study from BUGs lists (prepared by SCBRMP). Initially, the samples had been drawn through a two-stage sampling. The first-stage sample consists of 25 BUGs selected by Linear Systematic Sampling and the second-stage sample consists of 125 BUG members selected by Simple Random Sampling from the members of the BUG selected in the first stage.

2. Methodology

2.1 Analytical framework

This framework was developed to guide the impact monitoring process by the IFAD review mission of the SCBRMP. The monitoring has considered to measure changes in the indicators over the project period. The WorldFish used the same questionnaire developed for the first round study to measure the present status of the livelihoods situation, giving maximum attention to securing comparability with the previous stage of monitoring.

2.2 Quantitative surveys

The third round livelihoods study of BUG members of the CBRMP will provide important information of livelihoods changes. The study draws upon a quantitative assessment that captures the main trends of the BUG members' livelihoods. Livelihoods indicators covers into the 3rd round study are sources of income, housing status, sanitation, education, occupation, ownership of assets, land holding, agriculture, food security, sources of finance, institutional involvement, women mobility and human capacity building. The study will provide in depth understanding of the basic concerns of the livelihoods of project beneficiaries. These findings provided a platform to compare livelihood indicators between 2004 and 2012. The third round quantitative survey in the FRSP, initiated in March 2012, study was designed to collect data on livelihood indicators using a similar questionnaire as the one used for data collection in 2008 (Annex 1).



2.3 Quality control

Data quality was maintained by a guideline provided for each question of the questionnaire to cross check them and to provide continuous feedback on filled in questionnaire by the FRSP management. The monitoring personnel monitored data collection, provided on-the-spot training, feedback after reviewing the filled-in questionnaire on a sample basis, and shared experiences during team meetings. The FRSP management also closely monitored all interviews and provided specific feedback to the Research Assistants (e.g., questioning style, use of probing questions). As a follow up to cross check survey enumeration, the FRSP senior staffs checked at least 25% of the sample households to identify the missing links, ambiguous answers, and digital errors, and provided feedback to the team.

2.4 Data management and analysis

The data entry system has been designed in MS-Access. Consistency checks and keystroke errors were also detected and corrected before data table preparation and analysis. Data analysis was done using SPSS software.

2.5 Livelihood profiles

A household profile is represented as a summary of different characteristics of the sample households within a certain period of time, where human capital relates to literacy and education levels (adults and children), school enrolment by gender, illness, skills, occupations (primary and secondary), wage status, women mobility, etc. In the second livelihoods monitoring round there were 125 households sampled from 25 waterbodies although the composition of households in different categories have been changed within the last couple of years. At present distribution of households are 43 full-time fisher led, 58 part-time fisher led, and the remaining 24 are non fisher households in sample households.

3. General Demographic Characteristics

3.1 Household size

Size of sample household is almost evenly distributed throughout all impact monitoring survey while, districts average is slightly lower than the study family size and compare with the national average is much lower 4.44 per family. it has observed that households size has changed slightly during the reporting period, in 2008 and 2012 household size is almost identical was 6.6. Table 1 shows the fluctuation of household size over the study the period.

Table 1: Status of different household categories and size of household, 3rd round

	2004	2008	2010	2012
Household sample	125	125	125	125
People per household	5.78	6.6	6.7	6.64

* District Household size: 5.58 and National Household Size: 4.44

3.2 Beel User Group membership

Table 2 shows membership status (including executive committee) of sample households in the executive committee of BUGs. In the 2004 survey it has been observed that about 9% members of the sample households belongs to the executive committee whereas, number reduced to 5% in 2012 Present data also shows that 5 households have become inactive from the BUG activities. It is also apparent from the current study that in all sample households about 3% have been dropped out within the last couple of years while, about 91% are general members are very much active in the fisheries management activities. It is also reflects that the household targeted by the CBRMP intervention, showed increased social capital after graduation.

Table 2. Membership types of sample households by membership status, round 3

Position	2004	2008	2010	2012
President	3	2	5	1
Manager	3	0	1	0
Secretary	5	5	6	4
Cashier	29	3	1	1
Member	85	112	108	114
Dropout	0	0	4	5
Total	125	125	125	125

3.3 Education and literacy

The situation of education is very poor quality in Haor areas compare to other parts of the country. According to Population and Housing Census of 2011, national literary rate is 51.8 whereas; Sylhet division (which has the largest concentration of Haors) has 45%. In Sunamganj district, the state of education different level is not very satisfactory; in this district average literacy rate is around 35% The problems of education in Haor areas are many like poor physical condition of the existing schools, hygienic latrines, playgrounds, and other necessary conditions for ensuring the quality education.



An NGO school in the Tahirpur Upazila

Lack of transportation and communication is one of the main problems in Haor area to access to educational institutions. The CBRMP interventions has established better road networks at the village level compare to the pre project period. In primary level overall schooling rate increased about 5% whereas, education above class V, experienced an increase of around 3%. During baseline survey to statistics of 2012 enrollment to school has gradually increased and the proportion of old age and children below age 5 remain almost similar. Simultaneously, higher education rate also show similar tendency. Changes in education over the period are positive but it can't be described as a project impact alone, although it can be considered an indirect impact of the project intervention on the livelihoods of local communities.

Table3: Level of education (No. of people) in sample households (All members) 3rd round

	2004	2008	2010	2012
Children up to 5 years & none	34	38	31	32
Can Sign only	23	21.1	21.97	17.67
Level 1-4	18	16.7	21.97	19.89
Level 5-10	25	23.4	24.49	28.69
>= Level 11	1	0.5	0.72	0.74
Total Schooling (%)	44.0	40.6	47.18	49.32

4. Household Situation of Natural Capital

4.1 Land holding pattern

About 52% of haor households own agricultural land, 34% households are marginal while 51% households are small farmer (Master Plan of Haor Area). The study data reveals that operated land from base to 2012 has increased by about 15 decimals but the trend is not steady over the period. Compare to base year cultivable area in 2012 also increased but own cultivable land declined about 7 decimals, it is due to fragmentation of families. Use of total land holding (per household) is bigger in Sunamganj district than the national average which is 0.83 acres (Statistical Pocket Book 2008). Average homestead area is also

higher among sample households than the national average of 7 decimals per holding. All categories of people used to cultivate portions of land from local landlords. As most of them do not cultivate their own land, they usually give their land out on one year fixed lease or to sharecroppers. Details of land ownership status patterns of different categories of sample households over the period have given in table 6.



Table 4. Total land possess by households in decimals 3 rd round

Sl. No	Land Use	2004	2008	2010	2012
1	Own homestead land	12.4	12	10.7	14
2	Homestead land owned by someone else	0.3	0.7	1.3	2
3	Own pond or ditch	3.5	2.6	4.1	3
4	Land owned and cultivated by the HH	46.7	38.3	48	40
5	Land cultivated last year but owned by others	82.5	103.7	103.6	102
6	Land owned but cultivated last year by others	1.6	3.3	4.2	4
7	Khas land	2.3	3	1.3	4
8	Land owned but mortgaged out	10.6	7.1	9.9	7
9	Own non-cultivated land	2.2	4.6	1.2	1
	Total Land	162.1	175.3	184.3	177

Table 5: Land ownership pattern of different categories by percentage

	2004	2008	2010	2012
	125	125	125	125
Own homestead land	97	96	95	95
Homestead land owned by someone else	3	4	5	5
Own pond or ditch	15	15	13	15
Land owned and cultivated by the HH	36	34	38	34
Land cultivated last year but owned by others	68	72	67	62
Land owned but cultivated last year by others	3	6	4	5
Khas land	5	7	3	6
Land owned but mortgaged out	7	4	8	6
Own non-cultivated land	8	10	3	4

5. Physical Condition of Households, Housing, Sanitation and Asset Ownership

5.1 Housing Condition

Assessing the impact monitoring, it is revealed that number of houses per household remained the same however; average area has been increasing over the study period. In 2008 total dwelling area per family was 258 sq.m. but it has come to 299 sq.ft. in 2012. Additionally, it also observed that each household spent more money in 2012 for house repairing purposes than in 2008, which shows increased economic capacity of the households. Table 7 shows the comparative status of dwelling area of the sample households.

Table 6: Average housing, area and expenditure of the sample households by categories

	2004	2008	2010	2012
Number of houses	1	1	1	1
House area (sq ft)	272	258	268	299
Expenditure on repair (Tk/hh)	1630	3076	5800	12329

Current data shows substantial change in using corrugated tin for wall materials of the dwelling houses. In 2012 about 28% sample household used corrugated tin which was only about 6% in 2004. At the same time more households are using bricks for their walls houses (table 8) and on the other hand the use of roof materials among sample households has improved: In 2004 tin (corrugated iron) roof houses were 77% and now it is 90%, and at the same time use of grass has decreased by about 17%. Table 9, shows the housing materials use by the BUG members.



Changes in housing materials

Table 7: % changed in wall, materials of sample households in different years

		Materials used in 2004	Materials used in 2008	Materials used in 2010	Materials used in 2012
Wall	Straw/leaves	29.6	31.2	32.8	3.20
	Grass	33.6	30.4	32	10.40
	Bamboo	13.6	10.4	9.6	5.60
	Tin	5.60	9.6	12.8	28.80
	Earth	14.4	13.6	6.4	46.40
	Brick	3.2	4.8	6.4	5.60
Total		100	13.60	100	100

Table 8: Materials of roofs in dwelling houses of the sample households by categories

	2004	2008	2010	2012
Bamboo, straw, leaves & grass	23	13	7	6
Tin	77	87	93	90
Brick	0	0	0	4

5.2 Household sanitation

Access to quality drinking water is a prime need to minimize ill health. The CBRMP working area is situated in the low laying *haor* basin where traditionally people are used to hanging latrines on the flowing river/canal adjacent to each residence. Due to this, water borne diseases are very prominent. Survey data of 2012 shows that the amount of water-sealed latrines has increased significantly from base year, about 89% households use within the last two years, and that other the two categories – households with no latrine or not water sealed– have also reduced. Table 10 presents changes in sanitation situation in the project area.

Table 9: % Changes in water and sanitation in project area

	2004	2008	2010	2012
Water Sealed	12.8	77.6	85.9	88.8
Hanging Latrine	78.4	11.2	9.2	8
Open field	8.8	11.2	4.8	3.2

5.3 Household asset ownership

There are similarities of household assets over the period but improvements in ownership precious items like rickshaw, bicycle, mechanized boat, shallow machine, power tiller and sewing machine over the period from 0 to 4% while, furniture increase by about 9-31%. The study also reveals that luxury assets such as radio, television, gold and mobile phone has increased notably. Sometimes household assets facilitate certain kinds of livelihood activities such as fishing or agriculture. Table 11, shows the percentage of households holding assets in different years. Assets such as fishing nets, mobile phones, ornaments, furniture (beds/chair/tables/showcase), radios, televisions, and bicycles are most commonly held by households. Comparing four sets of data from the BUG members' households, there are positive changes in most of the items. On the other hand fishing net and boat ownership decreased within project period.

Table 10: Total no. of household valuable assets by categories, 3rd round

Assets	2004		2008		2010		2012	
	No. HH	%	No. HH	%	No. HH	%	No. HH	%
Rickshaw/Van	5	4	1	1	3	2	7	6
Bicycle	4	3	7	6	7	6	9	7
Boat	36	29	60	48	54	43	51	41
Mechanized boat	0	0	3	2	4	3	2	2
Fishing net	82	66	91	73	80	64	82	66
Plough	28	22	38	30	50	40	41	33
Shallow machine	1	1	6	5	7	6	5	4
Power tiller	0	0	1	1	1	1	4	3
Radio/cassette	2	2	11	9	5	4	4	3
TV	2	2	14	11	16	13	16	13
Gold (Ornament)	20	16	77	62	66	53	63	50
Sewing mechine	0	0	4	3	7	6	4	3
Beds/Cots (Khat)	94	75	97	78	103	82	105	84
Show case/Almirah	6	5	38	30	46	37	46	37
Cattle/Buffalo	43	34	62	50	70	56	56	45
Goat/Sheep	10	8	14	11	16	13	18	14
Poultry	88	70	83	66	90	72	76	61
Mobile phone	0	0	11	9	55	44	79	63

6. Household Financial Situation

6.1 Household income profile

After the inception of the project significant progress have been achieved in different fields of diversification of income. Household income has increased nearly three times compare to the much slower rate in national level income. The project area has made remarkable progress in the fisheries management and development of its infrastructure, especially in the



development of paved roads. Most of the unions are well connected to the Upazila center and district headquarters through paved roads. The majority of project people are depends directly or indirectly on open water fisheries for its livelihood. Great success has been achieved in terms of increasing income from fishing. In all studies households were asked to estimate their income from different sources for the 12 months prior to the survey. it has been observed that natural resources have always been the basis of the local economy in the Sunamganj *haor* areas. This part of the report provides a preview of the general household income contributed from different economic activities. Each, income activity represent the total percentage of households income derived from each particular source, in which contribution from fishing is highest in all studies. In 2012 the second highest income came from agriculture related activities followed by non-agricultural labor and fish related trading, whereas in 2004 the second highest income came from nonagricultural labor.

It is revealed that average income increased by about 28% from 2010 livelihoods study whereas, income increased by 180% compare with base income in among the participating households. Fishing is the income source with the highest contribution in all study periods but there are differences amongst the other categories. Table 12 reveals that in 2004, 43% of income derived from fishing but in 2012, 27% income contributed from fishing which is about 76% higher than the base year. Current table also describe proportionate contribution of other sources of households income. This scenario has been changed due to better access to resources, development of human capital, access to services and engagement in income activities.

Table 11: Average household Income (Taka) of different categories by sources

Source of income	2004 Total (n=125)		2008 Total (n=125)		2010 Total (n=125)		2012 Total (n=125)	
		%		%		%		%
Fishing	16,314	43	18653	30	21184	25	28725	27
Agriculture labor	4,392	12	4151	7	7157	9	10957	10
Non-agriculture labor	4,791	13	6183	10	9447	11	15232	14
Handicrafts/petty trade	2,739	7	2923	5	3278	4	4995	5
Fish and fish related trading	1680	4	1468	2	7795	9	8155	8
Income from Major Fishing	0	0	1133	2	2593	3	3115	3
Aquaculture	0	0	201	0	24	0	376	0
Business	2,038	5	3002	5	1240	1	800	1
Service (private/NGO/government)	1,233	3	1511	3	2584	3	3477	3
Sale of goats/sheep, poultry birds, milk and eggs	1,889	5	2839	5	3125	4	3447	3
Sale of agricultural by products and other assets	166	0	988	2	120	0	827	1
Remittances	1,320	3	1688	3	320	0	4680	4
Previous savings	0	0	640	1	2486	3	0	0
Agricultural income	0	0	7556	12	13979	17	14680	14
Other (Boat, rickshaw, carpenter, mason and maid)	1458	4	8353	13	7943	10	7328	7
Overall	38,020	100	61287	100	83275	99	106794	100

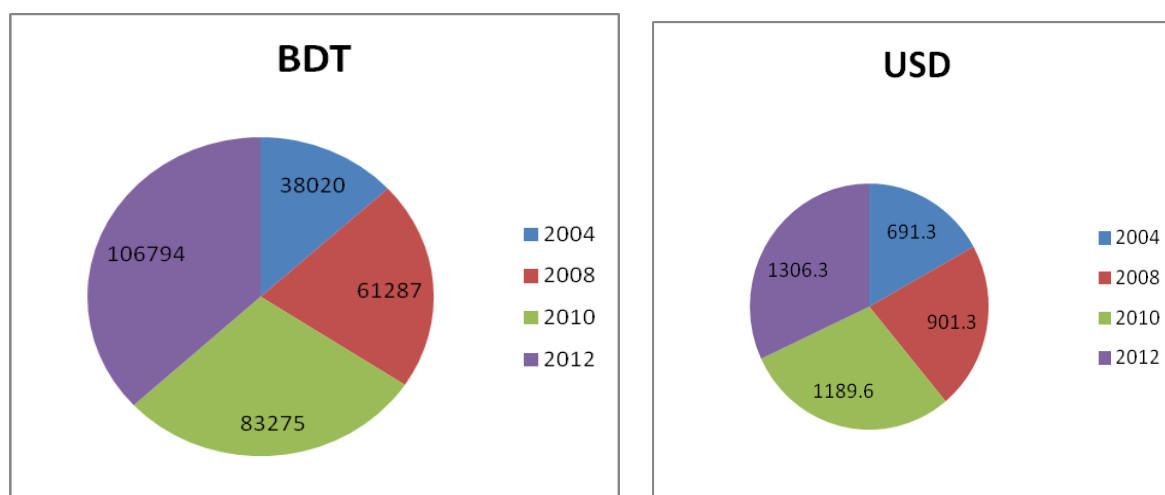


Figure: 2 Comparative incomes over different study years

6.2 Household expenditure

Present impact monitoring survey reveals that 40% of households' expenditure was spent on food of which 17% was spent on rice/wheat whereas in 2004, 69% was spent on food and 49% on rice/wheat which shows a proportionate decrease. At the same time fish, meat and egg consumption has significantly increase from base year to current year, it was only 4% of total expenditure but now it is 8%, on the other hand cash expenditure about 4 time higher in 2012 than 2004. This reveals a proportionate decrease of households expenditure on food items which has reduced by about 29% within the project of years (Table 13). Despite the high cost of food grain, the second highest expense in house repairing purposes, reflects better living standard over the period. In non-food items expenditure second highest spent for clothing in 2012 this was followed by house repairing and loan repayment.

Table 12: Average household expenditure in different items by study years

	2004		2008		2010		2012	
	Expt	%	Expt	%	Expt	%	Expt	%
Rice/wheat	21,317	49	23625	41	16878	22.1	15538	17
Health	1,812	4	3677	6	6851	9.0	5522	6
Vegetables	2,319	5	3119	5	3998	5.2	4488	5
Clothing	2,914	7	3187	5	3773	4.9	6020	6
Land (purchase, tax, mortgage)	0	0	965	2	3263	4.3	4300	5
Spices	2,027	5	2621	4	4125	5.4	5094	5
Soap, Shaving, cosmetics, Beel toll etc	54	0	2290	4	2291	3.0	4894	5
Festivals, ceremonies, marriage etc	889	2	1715	3	4454	5.8	3444	4
Edible oil	1,522	3	1802	3	2068	2.7	3117	3
Loan repayment	1,343	3	2504	4	6688	8.8	5055	5
Fish, Meat and Egg	1871	4	2265	4	2905	3.8	7,037	8
Fuel	1,085	2	1256	2	1979	2.6	2095	2
Fruits	888	2	1085	2	990	1.3	1334	1
Betel leaf, smoking & entertainment	1,770	4	1352	2	4525	5.9	4463	5
House repair/building	1,340	3	3076	5	5800	7.6	12329	13
Education	652	1	966	2	1687	2.2	2606	3
Travel	860	2	1106	2	1140	1.5	1477	2
Savings	386	1	806	1	1071	1.4	579	1
Livestock	85	0	334	1	322	0.4	256	0
Dal	414	1	459	1	591	0.8	1288	1
Furniture and equipment	0	0	83	0	890	1.2	2,590	3
	43,548		58293		76289		93,526	

6.3 Source of credit and uses

Although the importance of non-formal sources of credit has reduced but still people has need this credit to meet up household emergency needs like medical treatment, wedding of daughters or to acquire a job in home and abroad. Current study shows that number of non-formal credit declined rapidly from 2010 to 2012 which is a positive change in financial capital indicator as amount of income has increase at the same time per households. Data 2012 suggests that among 70 loan recipients, 36 households to loan from mohajan, followed by 12 households acquired loan from local society and 15 households borrowed without interest. Table 14b shows that the average number of non formal loans has decreased but the amount of money loaned has on average increased. This can be due to the significant number of loans provided by the *mohajan* to meet up people's emergency needs. Even with this dominance from this non formal loan provider, Micro Finance Institutions (MFI) and projects like CBRMP are still playing important roles in supplying finance to these poor households.

Table 13: Households' loan from non-formal sources

Sources of Loan	2008		2010		2012	
	No. of loan	Average amount of loan per source	No. of loan	Average amount of loan per source	No. of loan	Average amount of loan per source
Loan from fish trader	1	9000	1	3000	0	0
Loan against sale of other produce	4	1750	0	0	5	9156
Loan from <i>mohajan</i> (not fish trader)	78	9023	102	8423	36	6111
Loan from grocery shop	39	1464	12	1671	0	0
Bank loan	3	6000	1	5000	2	13500
Loan from local society (<i>samity</i>)	6	8000	5	4500	12	8683
Loan from relative	33	5906	30	6700	7	22071
Loan from someone else – no interest	11	7273	3	6000	8	8125
Total	175	6387	154	7330	70	8807

Current study reveals that the numbers loans BUG members (3) received from CBRMP during the last 12 months has reduced significantly compare to first round survey (85), as most of BUG members graduated from Credit Organization (CO). Most of the sample households are now linked with other micro finance institutes (NGO) is contributing highest amount of credit as organization but total highest average amount of also contributed by NGO. At the same time numbers Samity loan also has increased from 6 to 12 compare with first round survey held in 2008. Table 15 presents the total amount of credit from different sources in different study years. These trends may suggest better linkages and understanding with other local institute created due to the capacity building of the CBRMP to secure their financial support during hardship. In addition, discussions were held with project participants about increased cooperation among BUG members.

Table 14: No. of households that took credit from different sources in 2010

	2008	2010	2012
Bank loan	3	1	2
CBRMP loan	85	22	3
NGO loan	36	30	27
Samity loan	6	4	12

Table 15: Total amount of credit from different sources

	Average Loan (Tk) in 2008	Average Loan (Tk) in 2010	Average Loan (Tk) in 2012
Bank	6000	5000	13500
CBRMP	7670	6909	6000
NGO	8263	9300	14037
Samity	8000	5650	8683

7. Women Mobility and Food Security

7.1 Women Mobility to Services

There is general need that women required to work outside the homestead; due to project intervention women are getting more access to the different service sectors in government and non-government. Poor women who have no other alternatives are getting involvement in income generating activities. In recent years Social barriers of women's mobility have been gradually reducing, women are more visible in Markets, Banks, Union Parishad, involve in agricultural activities and also spent time in haor for collecting natural resources. Despite of all these improvement women activities outside homestead is still seen as non-prestigious for the household. The project discussions on women's mobility however encourage a higher



female participation in activities that are not home based. It is shown in the current study that in the last two years womens' mobility in most places has increased. Highest 84.6% households women visited waterbodies for collecting natural resources like fuel, fodder and water, followed by involvement in agric work. On the other hand women mobility in service place like Market (43.2%), Bank (24.8%), Union Parishad (53.6%) and Upazila head quarter (55.2%) has increased show better women empowerment to deal with the offices. Women visited hospital or clinic (40.8%) in 2012 is much lower than 2008, shows better health condition of participating households. The difference between both years lied in a higher number of women visiting the market, the banks and relatives, and less hospital (Table 17). Within the home, household's chores are mainly carried out by women, including washing, cleaning, cooking and other domestic activities. The most common involvement in beel is fetching water, fuel wood collection and some women are involved in vegetables gardening in dykes.

Table 16: Percentage of women (wife of HH head) mobility in following events by household categories

	2008	2010	2012
	n = 125	n = 125	n = 125
Market/Bazar	12.8	33.6	43.2
Bank	12	21.6	24.8
Land settlement office	0.8	4	4
Union Parishad	50.4	8.8	53.6
Upazila Head Quarter	42.4	52.8	55.2
Hospital/Clinic	80.8	45.6	40.8
Went to Beel	22.4	88	84.6
Went to Agriculture field	36	30.4	44
Other (Relatives house)	24	34.4	40.8

7.2 Household food and Nutrition

Over the project period considerable improvement occurs in household economic condition the nutritional well-being of the participating. It is crucial for households to attain nutritional security. Social capital, especially women, play an important role in averting vulnerability and sustaining livelihoods. Households food security status has improved in 2012 compare to 2010. This can be an influence of better access to common resources by the participating households. This section describes the households' nutritional status; data shows

that households protein consumption has slightly improved compare to 2010. Different data shows positive move in all consumed item in table 18, with an exception of decline in milk consumption compare with 2008. Fish consumption data was not available in 2008; current data shows higher fish consumption per house than the national average.



Fish is the major nutritional component in the *haor* area

Table 17: Average amount of food items consumed by households in year

Average per Household in 2008		Average per Household in 2010		Average per Household in 2012	
Fish (Kg/year)	na	Fish (Kg/year)	92.5	Fish (Kg/year)	98.07
Meat (Kg/year)	9	Meat (Kg/year)	8.7	Meat (Kg/year)	15.21
Eggs (No./year)	44	Eggs (No./year)	55	Eggs (No./year)	84.81
Milk (Lt./year)	51	Milk (Lt./year)	29.3	Milk (Lt./year)	32.65

Respondents were asked directly about their level of food security. The most severe food scarcity is more than 4 months of food deficit per year was suffered by approximately 4% of households in both survey years. The greatest difference and impact arises from 2010 to 2012 is 17% decrease in households food shortage experienced from 1 – 3 months . This 17% shifted to the category of not suffering any sort of food shortage (Table 19). Food security in the project area is heavily dependent on intensity of flood, water extension and duration of the monsoon. In order to improve household food consumption, it is necessary to reduce crop damage caused by the flash flood.

Table 18: Percentage of different household categories experiencing different food shortage periods

Months Experience Food Shortage	2008	2010	2012
	%	%	
No food shortage	22.4	37.6	64.8
1 – 3 Months shortage	74.4	58.4	31.2
More than 4 Months shortage	3.2	4.0	4.0
Total	100	100	100

8. Institutional Involvement

Membership and/or participation in institutions functions as a good proxy of social capital, because it provides members with network access to material and non-material goods and/or services. The most commonly accessed institution/project is CBRMP and other local NGOs. Duration of membership varies from 1 to 6 years and average membership per household is just above one. Savings accumulated per household was highest by CBRMP members (Tk 1,958) followed by ASA members (Tk 1,646) in 2008 but in 2012 CBRMP participants accumulated savings after partial withdrew is Taka 1541 while, current data suggest at present highest saving accumulated by BRAC participants is 2831. Table 20 presents the involvement of different organizations within sample households. Average number of loans within the last 12 months is about 1 unit across all categories of participants in different organizations and the amount varied from Tk 2,000 to Tk 16,000 and local NGOs are now dominates in credit supply to participants.

Table 19: Organizational involvement of sample households (average)

	Type of Organization											
	CBRMP	BRAC	PODOKY EP	BRDB	FIVDB	VARD	Islamic Relief	ASA	Grameen Bank	San creed	Krishi Bank	Others
2008												
Number of households involve	125	10	3	6	1	2	1	7	6	1	1	
No of years in Project /Org	2	2	2	2	2	2	1	4	2	1	2	
Savings (Tk/household)	1958	662	1088	1436	800	500	450	1646	999	980	0	
No of loan received last 12 months	1	1	1	1	1	1	1	1	1	1	0	
Loans (Tk/household)	5258	7300	6333	9417	5000	9500	10000	9714	6833	6000	0	
Amount of loan repaid last 12 months Tk	2222	3510	3766	2947	660	6000	460	4849	2887	1040	0	
2010												
Number of households involve	125	5	2	2	-	2	1	11	9	1	1	3
No of years in Project /Org	4	2	2	4		3	3	3	2	1	6	1
Savings (Tk/household)	1990	3510	1360	2100		2250	0	2661	4417	2130	0	32

No of loan received last 12 months	1	1	1	1		1	1	1	1	1	1	1
Loans (Tk/household)	6909	10000	7500	9500		9000	10000	7458	7200	4000	4500	7000
Amount of loan repaid last 12 months Tk	4061	5375	3298	480		2300	11000	2584	3218	2995	0	5500
2012												
Number of households involve	125	10	1	2	-	-	-	2	-	-	9	1
No of years in Project /Org	6	4	1	4	-	-	-	4	-	-	4	2
Savings (Tk/household)	1541	2831	-	1750	-	-	2750	2849	800			
No of loan received last 12 months	1	1	-	1	-	-	1	1	1	-	-	-
Loans (Tk/household)	6000	16400		15000				7000	11750	-	-	2000
Amount of loan repaid last 12 months Tk	3000	1500	-	1200	-	-	1000	2200	500	-	-	-

The present study data suggests that dependency on credit declined in 2010. The distribution of CBRMP loan has fallen sharply during the last two years (in 2008 number of loans from project fund was 122 while it is only 22 in 2010). A positive aspect of this shifting of credit use lies in about 48% of credit being used for income generating work and 21% of credit used for meeting daily needs in 2010. Table 21 presents the sources of other loans from different stakeholders.

Table20: Use of loan by different sources

	% of Use in 2008	% of Use in 2010	% of Use in 2012
Fishing gear	9	6	0
Meet daily needs(food etc)	36	21	40
Livestock	8	2	1
To buy land	1	0	0
Business/petty trade	12	23	9
Cultivation	16	17	14
Marriage	1	6	3
Medical costs	6	6	12
House repair/Buildings	4	6	13
Buy Beel	2	4	1
Loan repayment	4	6	7
Festivals/Ceremonies	1	0	0
Land Mortgage in	1	0	0
Boat Purchase	1	2	0
Lease value payment	1	0	0

Table 21: Sources of other loan and different loan use (unit)

	Fishing gear	Meet daily needs (food etc.)	Livestock	Business/ Petty trade	Cultivation	Marriage	Medical costs	House repair	Loan repayment	Boat Purchase	To buy beel	Total
2008												
Loan from fish trader				1								1
Loan against sale of other produce		3										3
Loan from mohajan (not fish trader)	2	31	1	6	16	2	4	5	1			68
Loan from grocery shop		29										29
bank loan		1			1			1				3
Loan from local society (samity)		3		1	2							6
Loan from relative	1	19	1	1	1		8	1				32
Loan from someone else - no interest		4		1		1		1				7
2010												
Loan from fish trader				1								1
Loan against sale of other produce												
Loan from mohajan (not fish trader)	4	24		7	15	5	16	3			2	76
Loan from grocery shop		9										9
bank loan					1							1
Loan from local society (samity)	1	1				1					1	4
Loan from relative		4		1	2	3	9	3		1		23
Loan from someone else - no interest		1					1	1				3
2012												
Loan from fish trader	-	-	-	-	-	-	-	-	-	-	-	-
Loan against sale of other produce	-	17	-	5	2	1	5	4	3	-	1	38
Loan from mohajan (not fish trader)	-	18	-	2	2	1	5	4	4	-	-	36
Loan from grocery shop	-	-	-	-	-	-	-	-	-	-	-	0
bank loan	-	-		-	1	-	-	1	-	-	-	2
Loan from local society (samity)	-	4	-	-	6	-	2	-	-	-	-	12
Loan from relative	-	-	-	-	3	-	-	4	-	-	-	7
Loan from someone else - no interest	-	1	1	2	-	1	-	-	-	-	-	5

In CBRMP great attention is paid to develop BUG members to manage their own resources. During the last two years the number of training provided by the project reduced, but during this period refreshers training were provided to keep up previous skills. Table 23 shows number of different training organized by sample households by different sources in the studied years.

Table 22: Number of different training arranged for sample households by different sources

Training received on	2008	2010	2012
Occupational Skill training – CBRMP	128	41	6
Management training – CBRMP	159	165	15
Management training - Other Source	125	11	46
Human development training – CBRMP	161	16	28
Human development training - Other Source	125	3	7
Occupational Skill training – CBRMP & Other Source	205	0	1
Management training – CBRMP & Other Source	159	0	0
Human development training - CBRMP+Other Source	153	0	0

ANNEX 1:

FIRST ROUND BUG MEMBERS LIVELIHOOD QUESTIONNAIRE

SCBRMP of LGED/WorldFish Center

Fisheries Research Support Project (FRSP)

Household Impact Survey Questionnaire

INTERVIEWER TO COMPLETE:

Name of the waterbody/site:..... | | | |

Name of the HH head:Father/Husband name:

Member name: M/F Relation with HH head: | | | |

Village: Ward: Union: Upazila
Name of BUG Date of joining BUG

Position in BUG: President / Manager / Secretary / Cashier / Member

*Main occupation of head of household..... Female headed household Yes/No

Q 1.1 Profile of Household Members:

Sl no	Name	Relation to H HH	M-1 F-2	Age	Education		1st occup	2nd occup	Fish-ing
					Finish	Cont.			
1									
2									
3									
4									
5									
6									
7									
8									

1-head of HH 2-wife/husband 3-son /daughter 4-grandchild 5-brother/sister 6-brother's wife 7-sisters husband 8-son/daughter of brother/sister 9-father/mother 10-grandparent 11-daughterinlaw 12-son in law 13-other (specify) 22-employee	Finish: 0-none 1 to 16 years of school completed 20-can sign name only 21-can read newspaper Cont: tick if yes	<u>Occupation:</u> 1-cultivate own land 2-cultivate own and sharecrop land 3-sharecropper only 4-rent out land 5-fishing 6-fish trader 7-fish net maker 8-fish processing 9-fish culture 10-fish gear trader	11-agric labourer 12-non-agric labourer 13-rickshaw/van 14-boatman 15-handicraft 16-petty trade 17-business 18-mechanic/driver 19-other employee/Non government service 20-teacher 21-government service	22-paid homestead work 23-housewife 24-livestock 25- Poultry rearing 26-- Carpenter/ Mason/blacksmith 27- student 28- beggar 29- no activity other (specify)
	Fishing 1-professional 2-part time for income 3-just to eat 4-helping others 5-never			

Q 2.1 Sources of income for all household of the last year [Complete for each relevant source for **all hh members**]

Sl no	Income source	Total no of people	Average no of months in year	Average person days per month	Average daily income Tk/day
1	fishing				
2	agriculture labour				
3	non-agriculture labour				
4	rickshaw/van				
5	boatman				
6	handicrafts/petty trade				
7	domestic service for others				
8	other daily income (specify)				

Q 2.2 Annual income from other sources (for which daily/weekly calculation is difficult)

Sl no	Income source	Total income Tk
1	fish and fish related trading	
2	income from major fishing	
3	fish fry selling	
4	aquaculture	
5	drying/processing fish	
6	business	
7	service (private/NGO/government)	
8	renting out fishing equipment not used by household	
9	hiring out draft power	
10	sale of goats/sheep, poultry birds, milk and eggs	
11	sale of agricultural by products (straw, jutesticks, dung) - total	
12	Remittances	
13	Other (specify).....	

Do household members out-migrate for livelihoods: Yes/No If yes, how many persons: M____ F____

Q 3.1 Household Assets

Number of dwellings owned by household |__|__|

Area of dwellings owned by household (sq feet) |__|__|__|__|

Materials of main house: **wall** |__|__|

roof |__|__|

[materials: 1-straw/leaves, 2-grass, 3-jutesticks, 4-jute mats, 5-bamboo, 6-wood, 7-tin, 8-earth, 9-brick, 10-tiles, 11-concrete]

What kind of **latrine** do you have? [1-none, 2-not water sealed, 3-water sealed].....|__|

Q 3.2 Do you own any of the following assets? Number:

	Total No.	Owned by Male/Female	Price in Tk
Rickshaw/van			
Bicycle			
Boat			
Mechanized Boat			
Fishing Net			
Plough			
Shallow machine			
Power tiller			
Radio/cassette			
TV			
Gold (<i>sonar gahona</i>)			
Sewing Machine			
Beds / Cots (<i>khat</i>)			
Show Case (glass)			
Cattle/Buffalo			
Goat/Sheep			
Poultry			
Other			

Code: Male = 1, Female =2

Q 4 Present land ownership and tenure

Q 4.1 Area of all household's land:

Sl No	Land use	Area (dec)
1	Own homestead land	
2	Homestead land owned by someone else	
3	Own pond or ditch	
4	Land owned and cultivated by the household	
5	Land cultivated last year but owned by others (Sharecropped/rented /mortgaged in)	
6	Land owned but cultivated last year by others (Sharecropped/rented)	
7	Khas land	
8	Land owned but mortgaged out	
9	Own non-cultivated land	

Q 4.2 Total agricultural income last year from cultivation of own and rented in land by main crops: *[only ask if household cultivates land]* Not applicable.....

Crop	Production (md)	price (Tk/md)	Total value (Tk)	Cash cost of production*
Total (Tk)				

(* Purchased fertilizer, seed, pesticide, and water + hired human labour + hired draft power.)

If household has any **land rented or sharecropped out**, what was the total income last year (after any expenses on that land)? Tk |_|_|_|_|_|_|_|_|

Q 4.3 Fish Production

Source	Total no of people involve in fishing	Average person days per month	Average no of months in year	Average daily catch Kg/day	Total Production Kg
Pond					
Project waterbody					
Other waterbody					

Food Security: number of months when experience food shortage or difficulty _____

Q 4.4 Numbers of times per month normally consume:

	Weekly	Monthly	Yearly
Meat, chicken			
Eggs			
Milk			

Q 5.1 Expenditure

Expenditure on **Food**

[In the last year how much did you spend in **cash** on food consumption and non food items?]

Sl no.	Item	Expenditure (Tk)
1	Rice/wheat	
2	Vegetables	
3	Egg	
4	Fish	
5	Meat	
6	Dal	
7	Fruits	
8	Edible oil	
9	Others (specify)	
	Total	

Q 5.2 Expenditure on non-food items

Sl no.	Item	Expenditure (Tk)
2	Clothing	
3	House repair/building	
4	Education	
5	Health	
6	Fuel	
7	Travel	
8	Loan repayment	
9	Savings	
10	Land (purchase, tax, mortgage)	
11	Livestock	
12	Furniture and equipment	
13	Festivals, ceremonies, marriage etc	
14	Spices	
15	Other (specify)	

Q 6.1 In the last 12 months has your household taken a loan? What were the uses of this money?

Sl no	Source	No of loans	Amount Tk	Use of loans (code)
1	Loan from fish trader			
2	Loan against sale of other produce			
3	Loan from mohajan (not fish trader)			
4	Loan from grocery shop			
5	bank loan			
6	Loan from local society (samity)			
7	Loan from relative			
8	Loan from someone else - no interest			
	Total loans received			

[Use: 1-fishing gear, 2- meet daily needs (food etc.), 3-livestock, 4-to buy land, 5-business/petty trade, 6-cultivation, 7-marriage, 8-medical costs, Other codes later]

What were the main uses of this money? [Use of maximum to minimum amount of loans]

1st use.....|_|_|, 2nd use.....|_|_|, 3rd use.....|_|_|

Q 6.2 Organisational involvement

How many people of this household is the member of the SCBRMP project or a NGO, or a cooperative, or a fishing society, or Grameen Bank? For each organisation:

	SCBRMP project	1 (other NGO /organisation)	2 (other NGO /organisation)
Name of organisation (codes)			
No. members of organisation in household			
No. years member (maximum in household)			
Household savings held (Tk)			
Amount outstanding (Tk.) before last 12 months			
Loans received in last 12 months (no.)			
Loans received in last 12 months (Tk)			
1st use of loan (<i>codes as above</i>)			
2nd use of loan (<i>codes as above</i>)			
Amount repaid in last 12 months (Tk)			

Q 7.1 * Women Mobility (wife of HH head):

Do Women Household go to:	How many times in a Month	How many times in a Year	Not at all
Market/Bazar			
Bank			
Post office			
Land settlement office			
Union Parishad			
Upazila Head Quarter			
Hospital/Clinic			
Went to Beel			
Went to Agri field			
Other (specify)			

Q 7.2 Development Services Received to Date

Training (Please specify)	Number of courses	
	Project	Other Source
Occupational Skill training		
Management training		
Human development training		

ANNEX 2: SECOND ROUND BUG MEMBERS LIVELIHOOD QUESTIONNAIRE
SCBRMP of LGED/WorldFish Center
Fisheries Research Support Project (FRSP)
Household Impact Survey Questionnaire (2nd Round)

INTERVIEWER TO COMPLETE:

Name of the waterbody/site:..... | | | |

Name of the HH head:Father/Husband name:

Member name: M/F Relation with HH head: | | | |

Village: Ward: Union: Upazila

Name of BUG Date of joining BUG

Position in BUG: President / Manager / Secretary / Cashier / Member

*Main occupation of head of household..... Female headed household Yes/No

Q 1.1 Profile of Household Members:

Sl no	Name	Relation to H HH	M-1 F-2	Age	Education		1st occup	2nd occup	Fish-ing
					Finish	Cont.			
1									
2									
3									
4									
5									
6									
7									
8									

1-head of HH 2-wife/husband 3-son /daughter 4-grandchild 5-brother/sister 6-brother's wife 7-sisters husband 8-son/daughter of brother/sister 9-father/mother 10-grandparent 11-daughterinlaw 12-son in law 13-other (specify) 22-employee	Finish: 0-none 1 to 16 years of school completed 20-can sign name only 21-can read newspaper Cont: tick if yes Fishing 1-professional 2-part time for income 3-just to eat 4-helping others 5-never	Occupation: 1-cultivate own land 2-cultivate own and sharecrop land 3-sharecropper only 4-rent out land 5-fishing 6-fish trader 7-fish net maker 8-fish processing 9-fish culture 10-fish gear trader	11-agric labourer 12-non-agric labourer 13-rickshaw/van 14-boatman 15-handicraft 16-petty trade 17-business 18-mechanic/driver 19-other employee/Non government service 20-teacher 21-government service	22-paid homestead work 23-housewife 24-livestock 25- Poultry rearing 26-- Carpenter/ Mason/blacksmith 27- student 28- beggar 29- no activity other (specify)
---	--	--	--	---

Q 2.1 Sources of income for all household of the last year [Complete for each relevant source for **all hh members**]

Sl no	Income source	Total no of people	Average no of months in year	Average person days per month	Average daily income Tk/day
1	fishing				
2	agriculture labour				
3	non-agriculture labour				
4	rickshaw/van				
5	boatman				
6	petty trade				
7	handicrafts				
8	domestic service for others				
9	other daily income (specify)				

Q 2.2 Annual income from other sources (for which daily/weekly calculation is difficult)

Sl no	Income source	Total income Tk
1	fish and fish related trading	
2	income from major fishing	
3	fish fry selling	
4	aquaculture	
5	drying/processing fish	
6	business	
7	service (private/NGO/government)	
8	renting out fishing equipment not used by household	
9	hiring out draft power	
10	sale of cattle/goats/sheep, poultry birds, milk and eggs	
11	sale of agricultural bi-products (straw, jutesticks, dung) - total	
12	sale of trees	
13	Remittances	
	Other (specify).....	

Do household members out-migrate for livelihoods: Yes/No If yes, how many persons: M____ F____

Q 3.1 Household Assets

Number of dwellings owned by household |__|__|

Area of dwellings owned by household (sq feet) |__|__|__|__|

Materials of main house: **wall** |__|__|

roof |__|__|

[materials: 1-straw/leaves, 2-grass, 3-jutesticks, 4-jute mats, 5-bamboo, 6-wood, 7-tin, 8-earth, 9-brick, 10-tiles, 11-concrete]

What kind of **latrine** do you have? [1-none, 2-not water sealed, 3-water sealed].....|__|

Q 3.2 Do you own any of the following assets? Number:

	Total No.	Owned by Male	Owned by Female	Price in Tk
Rickshaw/van				
Bicycle				
Boat				
Mechanized Boat				
Fishing Net				
Plough				
Shallow machine				
Power tiller				
Radio/cassette				
TV				
Gold (<i>sonar gahona</i>)				
Sewing Machine				
Beds / Cots (<i>khat</i>)				
Show Case (glass)				
Cattle/Buffalo				
Goat/Sheep				
Poultry				
Other				

Code: Male = 1, Female =2

Q 4 Present land ownership and tenure

Q 4.1 Area of all household's land:

SI No	Land use	Area (dec)
1	Own homestead land	
2	Homestead land owned by someone else	
3	Own pond or ditch	
4	Land owned and cultivated by the household	
5	Land cultivated last year but owned by others (Sharecropped/rented /mortgaged in)	
6	Land owned but cultivated last year by others (Sharecropped/rented)	
7	Khas land	
8	Land owned but mortgaged out	
9	Own non-cultivated land	

Q 4.2 Total agricultural income last year from cultivation of own and rented in land by main crops: [only ask if household cultivates land] Not applicable.....

Crop	Production (md)	price (Tk/md)	Total value (Tk)	Cash cost of production*
Total (Tk)				

(* Purchased fertilizer, seed, pesticide, and water + hired human labour + hired draft power.)

If household has any **land rented or sharecropped out**, what was the total income last year (after any expenses on that land)? Tk |_|_|_|_|_|_|_|_|

Q 4.3 Fish Production

Source	Total no of people involve in fishing	Average person days per month	Average no of months in year	Average daily catch Kg/day	Total Production Kg	HH consumption Kg
Pond						
Project waterbody						
Other waterbody						

Food Security: number of months when experience food shortage or difficulty _____

Q 4.4 Numbers of times per month normally consume:

	Weekly		Monthly		Yearly	
	Amount	Taka	Amount	Taka	Amount	Taka
Fish bought source (Kg)						
Meat, chicken (Kg)						
Eggs (No)						
Milk (Lt)						

Q 5.1 Expenditure

Expenditure on **Food**

[In the last year how much did you spend in **cash** on food consumption and non food items?]

Sl no.	Item	Expenditure (Tk)
1	Rice/wheat	
2	Vegetables	
3	Egg	
4	Fish	
5	Meat	
6	Dal	
7	Fruits	
8	Edible oil	
9	Others (specify)	
	Total	

Q 5.2 Expenditure on **non-food** items

Sl no.	Item	Expenditure (Tk)
2	Clothing	
3	House repair/building	
4	Education	
5	Health	
6	Fuel	
7	Travel	
8	Loan repayment	
9	Savings	
10	Land (purchase, tax, mortgage)	
11	Livestock	
12	Furniture and equipment	
13	Festivals, ceremonies, marriage etc	
14	Spices	
15	Other (specify)	

Q 6.1 In the **last 12 months** has your household taken a loan? What were the uses of this money?

Sl no	Source	No of loans	Amount Tk	Use of loans (code)
1	Loan from fish trader			
2	Loan against sale of other produce			
3	Loan from mohajan (not fish trader)			
4	Loan from grocery shop			
5	bank loan			
6	Loan from local society (samity)			
7	Loan from relative			
8	Loan from someone else - no interest			
	Total loans received			

[Use: 1-fishing gear, 2- meet daily needs (food etc.), 3-livestock, 4-to buy land, 5-business/petty trade, 6-cultivation, 7-marriage, 8-medical costs, other codes later]

What were the main uses of this money? [Use of maximum to minimum amount of loans]

1st use.....|_|_|, 2nd use.....|_|_|, 3rd use.....|_|_|

Q 6.2 Organisational involvement

How many people of this household is the member of the SCBRMP project or a NGO, or a cooperative, or a fishing society, or Grameen Bank? For each organisation:

	SCBRMP project	1 (other NGO /organisation)	2 (other NGO /organisation)
Name of organisation (codes)			
No. members of organisation in household			
No. years member (maximum in household)			
Household savings held (Tk)			
Amount outstanding (Tk.) before last 12 months			
Loans received in last 12 months (no.)			
Loans received in last 12 months (Tk)			
1st use of loan (codes as above)			
2nd use of loan (codes as above)			
Amount repaid in last 12 months (Tk)			

Q 7.1 * Women Mobility (wife of HH head):

Do Women Household go to:	How many times in a Month	How many times in a Year	Not at all
Market/Bazar			
Bank			
Post office			
Land settlement office			
Union Parishad			
Upazila Head Quarter			
Hospital/Clinic			
Went to Beel			
Went to Agri field			
Other (specify)			

Q 7.2 Development Services Received to Date

Training (Please specify)	Number of courses	
	Project	Other Source
Occupational Skill training		
Management training		
Human development training		

Name of interview :

Signature :

Date :

SCBRMP of LGED/WorldFish Center
Fisheries Research Support Project (FRSP)
Household Impact Survey Questionnaire (3rd Round)

INTERVIEWER TO COMPLETE:

Name of the waterbody/site:..... | | | |

Name of the HH head: Father/Husband name:

If household head changed please write down reason:

Member name: M/F Relation with HH head: | | | |

Village: Ward: Union: Upazila

Name of BUG Date of joining BUG

Position in BUG: President / Manager / Secretary / Cashier / Member

*Main occupation of head of household..... Female headed household Yes/No

Q 1.1 Profile of Household Members:

Sl no	Name	Relation to H HH	M-1 F-2	Age	Education		1st occup	2nd occup	Fishing
					Finish	Cont.			
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									

1-head of HH 2-wife/husband 3-son /daughter 4-grandchild 5-brother/sister 6-brother's wife 7-sisters husband 8-son/daughter of brother/sister 9-father/mother 10-grandparent 11-daughterinlaw 12-son in law 13-other (specify) 22-employee	Finish: 0-none 1 to 16 years of school completed 20-can sign name only 21-can read newspaper Cont: tick if yes Fishing 1-professional 2-part time for income 3-just to eat 4-helping others 5-never	Occupation: 1-cultivate own land 2-cultivate own and sharecrop land 3-sharecropper only 4-rent out land 5-fishing 6-fish trader 7-fish net maker 8-fish processing 9-fish culture 10-fish gear trader	11-agric labourer 12-non-agric labourer 13-rickshaw/van 14-boatman 15-handicraft 16-petty trade 17-business 18-mechanic/driver 19-other employee/Non government service 20-teacher 21-government service	22-paid homestead work 23-housewife 24-livestock 25- Poultry rearing 26-- Carpenter/ Mason/blacksmith 27- student 28- beggar 29- no activity other (specify)
---	--	--	--	--

Q 2.1 Sources of income for all household of the last year [Complete for each relevant source for **all hh members**]

Sl no	Income source	Total no of people	Average no of months in year	Average person days per month	Average daily income Tk/day	Annual Income (TK)
1	Fishing					
2	Agriculture labour					
3	Non-agriculture labour					
4	Rickshaw/van					
5	Boatman					
6	Petty trade					
7	Handicrafts					
8	Domestic service for others					
9	Other daily income (specify)					

Q 2.2 Annual income from other sources (for which daily/weekly calculation is difficult)

Sl no	Income source	Total income Tk
1	Fish and fish related trading	
2	Income from major fishing	
3	Fish fry selling	
4	Aquaculture	
5	Drying/processing fish	
6	Business	
7	Service (private/NGO/government)	
8	Renting out fishing equipment not used by household	
9	Hiring out draft power/Power tiller	
10	Sale of cattle/goats/sheep, poultry birds, milk and eggs	
11	Sale of agricultural bi-products (straw, jutesticks, dung) - total	
12	Sale of trees	
13	Remittances	
	Other (specify).....	

Do household members out-migrate for livelihoods: Yes/No If yes, how many persons: M____ F____

Q 3.1 Household Assets

Number of dwellings owned by household |__|__|

Area of dwellings owned by household (sq feet) |__|__|__|__|

Materials of main house: Wall.....|__|__|

Roof |__|__|

[materials: 1-straw/leaves, 2-grass, 3-jutesticks, 4-jute mats, 5-bamboo, 6-wood, 7-tin, 8-earth, 9-brick, 10-tiles, 11-concrete]

Q 3.2 Household Water Sources

Source drinking water..... |__|__|

(Own tubewell =1, Tubewell set by CBRMP =2, Tubewell set by NGO=3, Tubewell Set by Government = 4, Water from river/haor/beel = 5 and Neighbor =6)

Source of water for households uses,..... |__|__|

(Tubewell = 1, River =2, Beel/Haor = 3, Ditch = 4 and Other (specify) =5)

Q 3.3 Household Sanitation Condition

Types of latrine used by the households |__|__|

(Water Sealed =1, Hanging Latrine =2, Open field =3)

If water sealed latrine used by the household, where they got it?..... |__|__|

(SCBRMP = 1, Public health office = 2, NGO = 3 and Own initiative = 4)

How much cost needed for setting water sealed latrine?.....TK.....

Sources fund for setting up latrine:

(SCBRMP = 1, Public health office = 2, NGO = 3 and Own = 4)

Q 3.4 Do you own any of the following assets? Number:

Sl. No.	Items	Total No.	Owned by Male	Owned by Female	Price in Tk
1.	Rickshaw/van				
2.	Bicycle/Motorbike				
3.	Boat				
4.	Mechanized Boat				
5.	Fishing Net				
6.	Plough				
7.	Shallow machine				
8.	Power tiller				
9.	Radio/cassette				
10.	TV				
11.	Gold (sonar gahona)				
12.	Sewing Machine				
13.	Beds / Cots (khat)				
14.	Show Case (glass)				
15.	Cattle/Buffalo				
16.	Goat/Sheep				
17.	Poultry				
18.	Mobile Phone				
19.	Other				

Q 4 Present land ownership and tenure

Q 4.1 Area of all household's land:

SI No	Land use	Area (dec)
1	Own homestead land	
2	Homestead land owned by someone else	
3	Own pond or ditch	
4	Land owned and cultivated by the household	
5	Land cultivated last year but owned by others (Sharecropped/rented /mortgaged in)	
6	Land owned but cultivated last year by others (Sharecropped/rented)	
7	Khas land	
8	Land owned but mortgaged out	
9	Own non-cultivated land	

Q 4.2 Total **agricultural income** last year from cultivation of own and rented in land by main crops: *[only ask if household cultivates land]* Not applicable.....

Sl.No.	Crop	Production (md)	Price (Tk/md)	Total value (Tk)	Cash cost of production*
1.					
2.					
3.					
4.					
5.					
6.					
	Total (Tk)				

(* Purchased fertilizer, seed, pesticide, and water + hired human labour + hired draft power.)

If household has any **land rented or sharecropped out**, what was the total income last year (after any expenses on that land)? Tk |_|_|_|_|_|_|_|_|

Q 4.3 Fish Production

Sl.No.	Source	Total no of people involve in fishing	Average person days per month	Average no of months in year	Average daily catch Kg/day	Total Production Kg	HH consumption Kg
1.	Pond						
2.	Project waterbody						
3.	Other waterbody						

Food Security: number of months when experience food shortage or difficulty _____

Q 4.4 Numbers of times per month normally consume:

Sl.No		Weekly		Monthly		Yearly	
		Amount	Taka	Amount	Taka	Amount	Taka
1.	Fish bought source (Kg)						
2.	Meat, chicken (Kg)						
3.	Eggs (No)						
4.	Milk (Lt)						

Q 5.1 Expenditure**Expenditure on Food**

[In the last year how much did you spend in **cash** on food consumption and non food items?]

Sl. No.	Item	Expenditure (Tk)
1.	Rice/wheat	
2.	Vegetables	
3.	Egg	
4.	Fish	
5.	Meat	
6.	Dal	
7.	Fruits	
8.	Edible oil	
9.	Spices	
10.	Others (specify)	
	Total	

Q 5.2 Expenditure on non-food items

Sl. No.	Item	Expenditure (Tk)
2	Clothing	
3	House repair/building	
4	Education	
5	Health	
6	Fuel	
7	Travel	
8	Loan repayment	
9	Savings	
10	Land (purchase, tax, mortgage)	
11	Livestock	
12	Furniture and equipment	
13	Festivals, ceremonies, marriage etc	
14	Mobile phone bill	
15	Other (specify)	

Q 6.1 In the **last 12 months** has your household taken a loan? What were the uses of this money?

Sl no	Source	No of loans	Amount Tk	Use of loans (code)
1	Loan from fish trader			
2	Loan against sale of other produce			
3	Loan from mohajan (not fish trader)			
4	Loan from grocery shop			
5	Bank loan			
6	Loan from local society (samity)			
7	Loan from relative			
8	Loan from someone else - no interest			
	Total loans received			

[Use: 1-fishing gear, 2- meet daily needs (food etc.), 3-livestock, 4-to buy land, 5-business/petty trade, 6-cultivation, 7-marriage, 8-medical costs, other codes later]

What were the main uses of this money? [Use of maximum to minimum amount of loans]

1st use.....|_|_|, 2nd use.....|_|_|, 3rd use.....|_|_|

Q 6.2 Organisational involvement

How many people of this household is the member of the SCBRMP project or a NGO, or a cooperative, or a fishing society, or Grameen Bank? For each organisation:

Sl.No.	Description of Status	SCBRMP project	1 (other NGO /organisation)	2 (other NGO /organisation)
1.	Name of organisation (codes)			
2.	No. members of organisation in household			
3.	No. years member (maximum in household)			
4.	Household savings held (Tk)			
5.	Amount outstanding (Tk.) before last 12 months			
6.	Loans received in last 12 months (no.)			
7.	Loans received in last 12 months (Tk)			
8.	1st use of loan (codes as above)			
9.	2nd use of loan (codes as above)			
10.	Amount repaid in last 12 months (Tk)			

Q 7.1 * Women Mobility (wife of HH head):

Sl.No.	Do Women Household go to:	How many times in a Month	How many times in a Year	Not at all
1.	Market/Bazar			
2.	Bank			
3.	Post office			
4.	Land settlement office			
5.	Union Parishad			
6.	Upazila Head Quarter			
7.	Hospital/Clinic			
8.	Went to Beel			
9.	Went to Agri field			
10.	Other (specify)			

Q 7.2 Development Services Received to Date

Sl.No.	Training (Please specify)	Number of courses	
		Project	Other Source
1.	Occupational Skill training		
2.	Management training		
3.	Human development training		

Name of interview :

Signature :

Date :