Final Draft

***Report on***

# *Evaluation of credit and income generating training programs, MACH project*


Submitted to:

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## ACRONYMS AND DEFINITIONS

| | |
|---|---|
| AIG | Alternative Income Generating<br>Other than *AIG training* mentioned in the report, AIG refers to income generating projects/activities |
| BCAS | Bangladesh Center for Advanced Studies |
| CBSG | Capacity Building Service Group |
| CNRS | Center for Natural Resource Studies |
| EC | Executive Committee |
| FGD | Focus Group Discussion |
| FRUG | Federation of RUGs |
| HH | Hail Haor |
| AIG | Income Generating Activities |
| KM | Kangsha-Malijhee |
| MACH | Management of Aquatic Ecosystems through Community Husbandry |
| NGO | Non Government Organization |
| PP | Project Participants |
| PSU | Primary Sampling Unit |
| RMO | Resource Management Organization |
| RUG | Resource User Group |
| SPSS | Statistical Package for Social Science |
| SUFO | Senior Upazila Fishery Officer |
| TB | Turag-Bongshi |
| ToR | Terms of Reference |
| UFO | Upazila Fishery Officer |
| UNO | Upazila Nirbahee (Executive) Officer |
| UP | Union Parishad |
| USAID | U.S. Agency for International Development |

## ACKNOWLEDGEMENT

This report on Evaluation of credit and income generating training programs, MACH project is the result of a co-operative and mutually supportive exercise between CBSG and MACH project staff, CARITAS and other partners from all levels.

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Very special thanks are due to each member of MACH Site level field staff in particular the Field Coordinators, Field Officers, Assistant Field Officers, and all others who have been so cooperative during the fieldwork. We gratefully acknowledge the contributions made by RUG members to make this survey a success. Finally, while acknowledging the valuable inputs of all the above, CBSG stand by the data, analysis and conclusions reached from the surveys and believe them to be a sound response to the information available. However, CBSG recognizes that the findings, analysis, and conclusion including any errors and omissions contained within this report are of its own.

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## EXECUTIVE SUMMARY

The evaluation of credit and income generating training programs is the first of this kind and has been conducted to assess the impact of AIG training on the lives of RUG members of MACH project. The project has been implementing AIG activities to help poor disadvantaged wetland resource users surrounding the project wetlands. One of the MACH partners Caritas has been implementing these activities in three project sites since the inception of the project.

MACH project have so far rendered training on AIG related issues in 241 batches. About 3,796 people have been trained on AIG skills as of June 2006. Of them 57% were male and rest 43% were female.

The study inquiry included a sample survey on 300 RUG members and conduction of 18 FGDs with 163 RUG members -who had received at least one AIG training during the project life cycle. In addition, 10 key informants interviews were conducted with CARITAS training team. The sample survey covered 300 respondents and equally represented from the three sites of the project.

About 37.8% of the respondents were female and the remaining 62.3% were male. About 43% of the respondents were either illiterate or can only sign. On the other hand 23.7% and 32.3% respondents had primarily and secondary levels of education respectively.

Self-employment had been overwhelmingly the main profession of majority of the respondents, particularly of the female respondents. On the other hand, 19.7% respondents- mostly male was involved in agriculture in their own land. The third main occupation of the respondents was found to be small business where both male and female were involved.

The average family size was found at 5.48 for the sample survey respondents. Among them average number of female earner per family .80 while average male earner was per family was found at 1.6. The dependency ratio was found at 43:57. On average 3.1 members per family is dependent to rest of the family members.

The survey found that 78.4% RUG members had received at least one AIG training though some of them received more than one AIG training. On the other hand, 21.6% respondents did not receive any AIG training

As far as gender segregation is concerned, the study data shows that 81% of the male respondents received AIG training. In contrast only 73.6% female respondents had received AIG training.

Vegetable cultivation, poultry/duck rearing, cow rearing and fish culture had been the mostly attended AIG training programs. Other than fish culture training, ratio of male and female participation in the AIG training programs were generally found similar. In fish culture male participation was found exceedingly high. Similarly, some AIG training programs such as Tailoring, Bamboo and cane, participation of female members were found very high.

On the other hand, Group management, Leadership Development and Resource Awareness had been mostly attended non-AIG training. No significant difference in male and female participation in the non-AIG training was found in the study.

The study envisaged looking at the usefulness and effectiveness of the AIG and non AIG training. A five point scale (0-4)[1] was used to assess the perception of respondents on the training they received from the MACH project. Among the various AIG training program bamboo and cane, cow rearing and fattening, poultry, and vegetable cultivation training had made more impact on the participants. On the other hand, for non-AIG training resource awareness and gender and advocacy had more impact on the participants.

The study also tried to look at the training impact on female and male participants. The study data revealed that both AIG and non-AIG training had made more impact on female than male participants.

[1] Scale: Usefulness and Effectiveness 0=Not at all, 1= Very Little, 2=Average, 3= High, 4= Very high

Among the various training courses bamboo & cane and cow rearing training were the most useful to the participants. On the other hand vocational training and plant nursery were least useful to the trainees.

Site wise segregated data revealed that cow rearing was seen as most useful training at HH and TB site whereas in the KM site fish culture training was found to be the most useful AIG training. Bamboo and cane training had been useful only at KM site. Poultry and duck rearing training were found to be quite useful to the participants from HH and KM site but not so much useful to the participants of TB site. Therefore the study suggests that the geographical context is significant as far as the usefulness of AIG training is concerned.

Among the various non-AIG training courses, Gender and Advocacy training were seen to be the most useful to the participants followed by Credit Management training. Similarly leadership development training and FRUG management training were significantly high in the moderately useful category.

Vegetable cultivation was seen to be moderately effective. Since highest number of people had received this training, there is great potential lies with the vegetable cultivation training provide training quality is improved.

As far as male and female perspective is concerned, out of 181 female AIG training recipients, only 19.5% said that the training was highly effective to them. In contrast, 41.5% male said the training was highly effective. It is worthy to pointed it out here that 53% female had found AIG trainings were useful to them. It indicates that the extent of usefulness differs significantly from effectiveness for female RUG members. On the other hand 36.5% female participants said that the training was not effective whereas only 21.9% male participants said the same. In other words, the AIG training was more beneficial to the male participants than the female.

Gender and advocacy training were seen to the most effective among the various non-AIG training. On the other hand leadership development is the least effective training. Group management training was mostly attended training followed by leadership development. As a whole group management training can be rated as moderately effective training. Similarly resource awareness training was said to be a moderately effective training program.

The sample survey study on 300 respondents showed that vast majority (82 %) of the trained people had taken loan though 18% participants had yet to take any loan till the study period. On an average 18% did not take any loan from MACH but had training on at least one AIG courses.

RUG members have been taking loan from MACH project since 2001. Cow rearing had been the main AIG over the years. Whereas small business, Fish culture and poultry are the members took the second and third major AIG activities. In the initial year more money was invested on the main AIG i.e. cow rearing. But in recent years, highest amount of investment had been making in Poultry followed by cow rearing and business/fish culture.

The training impact study tried to look at the extent of AIG had been supported by relevant training. The study data shows that only 46.2% AIG had been supported by relevant training. The vast majority of the AIG (over 53.8%) did not have proper training. Three most important AIG include cow rearing, small business and fish culture. Only few had received training on small business. Training received on fish culture and cow rearing had been 63.6% and 51% respectively.

In-depth analysis revealed that the production oriented AIG had been better supported by training than non-production like trading activities (small business). Productive AIG with new technology and methods such as Poultry, vegetable gardening, tailoring, nursery etc had been more attached with training. Traditional AIG like small businesses had little linkages with AIG training.

More than one third of the respondents were female. About half of them had relevant training to their respective AIGs. Cow rearing had been the major AIG for them followed by small business and poultry. 88.2% female involved in poultry had received training on it while only 45.9% female received relevant training for cow rearing AIG. Surprisingly none of the female received training on small business though this had been the second largest AIG for female. Everybody involved in tailoring and embroidery had relevant training.

The study respondents have received credit on both main AIGs and other AIGs. Like wise, RUG, members had also received training on main AIG as well as on supplementary AIGs. The study revealed that out of the total 364 AIGs receive credit from the project, 58% are main AIGs and the remaining 42% are supplementary AIGs (not main AIG).

While looking at the training aspects on the AIG, the study revealed that only 38% AIGs as a whole regardless of main and supplementary AIG had received training and vast majority of the AIGs (62%) did not received training. However, in comparison to main AIG and supplementary AIG, 54% of the main AIG had received relevant training while 45% of the main AIG did not received training. On the other hand, only 15% supplementary AIG had received training and 85% did not received the training.

The study revealed that besides AIG (main and supplementary), a portion of the loan had been used for various other purposes including meeting family expenses. Out of the total 300 respondents, 165 respondents mentioned that they had used part of their loan for non-AIG purposes, which was 55% of the total sample.

The study data shows that in 36.4% cases the loan was used for some kind of capital expenditure including purchase of land or land mortgaged in, Tube well/Shallow machine purchase, House renovation etc. But the major part was used for recurring expenses such as incurring family expenses and to pay for agricultural expenses including pay for day labours, buying inputs etc. However, in 7.3% cases the expenditure made also has the potential to earn some income as it can be called semi-AIG. They include purchase of Rickshaw/VAN, Purchase of medicine/goods for small business, which the RUG members already had without MACH support.

The impact of training on various AIG types did differ significantly. For example, AIGs related to poultry, nursery and to some extent fish culture had benefited tremendously from the training. On the other hand impact of training on AIGs such as cow fattening, goat rearing and tailoring had been quite low. In small business sector, the impact of training were said to be nil.

Cow rearing, fish culture and trade, and small trade had been the major AIGs for the project participants. The study revealed that poultry and cow rearing had been more prolific in terms of income than other AIGs. Though fish culture and fish trading was more traditional, income level from this trade was not as good. Income earned from the small business sub sector was found to be quite poor though loan amount employed to this sub sector was seen to be relatively high.

Earning ratio against the loan invested was seen to be highest at the vegetable businesses. On the other hand per capita earning had been the highest for vocational trade. But in both of these sub sectors, only a handful of participants were involved in as a main AIG.

Out of the 182 main AIG studied in the training impact assessment, it was found that the average income of each AIG stood at Tk. 5,610 or Tk. 20 per day. Besides, each person got on an average 280 days work in the main AIG.

Looking at the gender aspects of the earning of main AIG, it was found that male participants had undertaken more AIGs than the female and they had more involvement in terms of work days and also earned significantly high.

The study findings revealed a structural change in the source of income among the respondents since the project had started. There had been sharp decline on fishing for family income both during peak season as well as lean season. Income from agricultural activities and businesses including fish related business had emerged as major source of income. On the other hand people were less dependent on day labourer for earning. The structural change of income source and thereby change of occupation have made a positive impact on the economical condition of the respondents and had contributed to improved livelihood security. 96% of the respondents now have three square meals a day. Only 1% respondent said they could afford to have only one meal a day. The rest 3% said that they had two meals a day.

The study also revealed that more than 59% respondent now actually have surplus income meaning that they can even save after meeting their regular expenses. 30.3% respondents maintains their family at the break even level meaning they can not anything but there has been no

deficit of income for them. Another 8% households have occasional deficit of income and only 1% household have chronic deficit of income.

The study tried to look the occupational pattern and income level of the project participants in a comparative manner i.e. prior to the MACH project and now. The response from the participants revealed that almost all the participants had more than one source of income for their livelihood. The participants had experienced a gradual shift of their occupation over the last few years. Fishing had been the prominent profession as 52.3% of the respondents were involved in fishing and fetched around 25.6% of their income from that sector. As far as agricultural work is concerned, the changes in terms of occupation and income dependency had not changed much – only few more people are engaged in agriculture but for less income.

There has been a significant change in the profession of the RUG members due to AIG training and relevant AIGs. The most significant shift has been noticed in fishing profession and income ratios. Impact is evident in the income source areas where MACH provided training and AIG support.

The study also looked the changes according to fishing categories of respondents. It revealed that there had been a gradual decrease of dependency on fishing and aquatic resources.

The study made an attempt to look the people with highest vulnerability in terms of income, fishing dependency and life skills. Gender segregated data suggests that relative gain among the male in relatively high than the female for income and skill development. On the other hand, more female had reduced their dependency on fishing and aquatic resources than male.

About the retention of training knowledge among the participants, the study suggests that only few people either have very high or very low retention of training knowledge. Vast majority have average to high level of training retention. In quantitative term, 54% respondent said they had high retention of training issue they had been taught during the training period while 37.7 % confessed that they had average level of retention of training subjects. Retention of training subject is comparatively better among the people at KM site.

AIG training had insisted many participants to establish income generating activities based on the training skills. Many of them did not have such activities before. Some traditional activities had turned into business opportunities as a result of training. For example, cow rearing had been traditional practices for rural people. But many people had taken cow rearing and cow fattening as an alternative income-generating source. Like wise poultry, vegetable cultivation had taken new turn as income generating activities. The major change had been the scale and profit orientation. These activities are now being implemented with a business perspective. There were also some new AIGs such as tailoring, vocational trade etc that were not before among the participants.

# Conclusions and Issues

The training impact assessment generally shows progress of knowledge and skills among the participants. In other words, MACH objective to reduce dependency on fishing and other aquatic resources had been achieved to a good degree. The training had positively contributed towards diversification of incomes sources as well as enhancement of income. Over the last few years more and more people had been engaged on off farm activities had yielded more income and thus ensuring improved livelihood security of the people in the wetland.

Skill development training had been greatly supplemented by the provision of credit though effective utilization of credit had not been achieved fully. Still a part of the credit fund had been diverted to other purpose including consumptions. The demand for credit among the project participants is there and actually it is on the raise. People are expecting higher volume of credit. However, loan-servicing capability still remains an issue particularly for higher volume of loan with existing level of competencies.

MACH project had successfully set off a range of AIG for the project participants. A large number of AIG had been based on productive functions, which requires a degree of technical skills such as cow fattening, vegetable gardening etc. These skills have been successfully imparted through the

AIG trainings. Besides trading related AIGs like small businesses, fish trading requires less technical skills but more business skills. Generally business skill development training was limited in number and scope.

AIG with high degree of technical skill requirement had actually done better in terms of income, return on loan employed and employment. This provides a genuine argument that the participants had actually put the training skills in practice.

MACH project also conducted series of non AIG training for human development the project participants. These had made good impact in terms of gender relation, leadership development and group cohesiveness. People are now more increasingly motivated to send their children to schools. Increased level of mobility was also noticed among the project participants particularly among the females.

MACH training had generally benefited both male and female in terms of income increase, livelihood security, and skill development. Having said that, male participants had been relatively more benefited than the female.

Skill development training had greatly contributed to scale up otherwise traditional practices like cow rearing, poultry rearing, and vegetable culture to a business level. However, most of the participants still depend on multiple sources for livelihood. That is to say, present scale of business operation does not provide full employment for the project participants. In order to do that, the scale of operation needs to be further stretched. The issue remains, do the present technical and business skill are feasible and economically viable for scale up. General perception had been that the existing level of skills is not adequate for the required scale of operation for full employment.

## SECTION – I: INTRODUCTION

# 1 Background

MACH (Management of Aquatic Eco-system through Community Husbandry) evolved as a sustainable approach to floodplain and wetland resource conservation and management. The Government of Bangladesh and the United States Agency for International Development (USAID) jointly developed the project. The project is being implemented since September 1998 by Winrock International and three national partners: the Bangladesh Centre for Advanced Studies (BCAS), Center for Natural Resource Studies (CNRS) and Caritas Bangladesh.

MACH II is the second phase of the project currently being implemented by the same partners with the same project purpose working to consolidate the achievements made during the MACH-I.

The MACH project is being implemented in three sites: Hail Haor in Moulovibazar district, Turug Bangshi in Gazipur district and Kangsha Malijhee in Sherpur district. It mainly aims to demonstrate to communities, local government and policy makers about the viability of community approach to natural resource management and habitat conservation over an entire wetland ecosystem. The 'communities' include all people in that area especially the poor, who depend either economically or nutritionally on the floodplain and/or wetland resources. The inherent aims are the conservation and proper management of wetlands and their resources to ensure a sustainable wetland ecosystem. The MACH project provides interventions through a multi-disciplinary, multi-sectoral and participatory process of planning, implementation and monitoring for sustainable wetland resource management. MACH project also included supplementary income generation activities for enhancing and diversifying the incomes of poor people who used to depend on fishing and other wetland resource use.

In all the three project areas, MACH has taken several initiatives to enhance knowledge and awareness of the communities regarding the importance of wetland resources, their services, and different approaches and tools to conserve and restore wetland resources. The project also involved the community and local government through outreach and public education efforts, and raised their voices regarding wetland resources management and bio-diversity conservation. MACH project awareness activities have included courtyard meetings, tea stall sessions, workshops, drama and observance of important days; these stress the importance of management and conservation of wetland resources and eco-systems.

MACH has been implementing AIG activities to help poor disadvantaged wetland resource users surrounding the project wetlands. One of the MACH partners Caritas has been implementing these activities in three project sites.

## 1.1 Training course, participants, content and processes

On of the partners of MACH named CARITAS has been implementing the AIG training program at the field. They are primarily responsible for course design, need assessment as well as rending training at site level. The credit program for RUG members is also managed by CARITAS.

The AIG trainings conducted by CARITAS aimed at reducing dependency on the wetland of the people who are mostly depend on wetland resources for their survival. The need and demand of the mentioned AIG trainings were mostly drawn from the discussion of RUG meetings, community meetings, and various awareness meetings and as well as from the observation of the field level workers.

The content of the courses were quite relevant and pertinent in relation the objective of the courses. Participatory and community friendly methodology/ techniques are being used in all courses. Most of the courses are of short duration (1-3) days except few like Cane and Bamboo and vocational trades. In addition to CARITAS training team, relevant subject matter specialist of GoB's upazila set-up were hired to render technical aspects of training courses.

MACH has so far rendered training on AIG related issues in 241 batches[2]. Site wise in HH site there were 87 bathes, 81 batches in the KM site and in TB site there were 71 bathes. Training were provided to almost 26 trades. However, this study focused on certain major training courses, on which a substantial of RUG members were training and subsequently provided loan for undertaking AIG. The following table provides a summary picture of number of participants on study focused training courses.

**Table-1: People trained by MACH project by courses**

| AIG skill development training under phase I & II | Site | | | Gender | | Total |
|---|---|---|---|---|---|---|
| | HH | KM | TB | M | F | |
| Cow rearing and fattening | 204 | 56 | 156 | 221 | 195 | 416 |
| Poultry/duck rearing | 132 | 86 | 144 | 160 | 202 | 362 |
| Fish culture/nursery | 126 | 179 | 62 | 324 | 43 | 367 |
| Plant nursery | 80 | 44 | 68 | 158 | 34 | 192 |
| Vegetable cultivation | 294 | 484 | 158 | 481 | 455 | 936 |
| Wheat cultivation | 104 | 95 | 198 | 277 | 120 | 397 |
| Vocational | 44 | 40 | 18 | 102 | --- | 102 |
| Tailoring | 132 | 72 | 72 | 1 | 275 | 276 |
| Bamboo and cane | --- | 84 | -- | --- | 84 | 84 |
| Sub Total | 1116 | 1140 | 876 | 1724 | 1408 | 3132 |
| Others AIG Training | 240 | 205 | 219 | 453 | 211 | 664 |
| Grand Total | 1356 | 1345 | 1095 | 2177 | 1619 | 3, 796 |
| % | 36% | 35% | 29% | 57% | 43% | 100 |

About 3, 796 RUG members – individual people, have been provided with AIG skill development training as of June 2006 by MACH project. Of them 57% are male and 43% are female. The project is now intended to conduct a study to assess the impact on MACH alternative income generating training program.

### 1.2 Study Objectives

The broad objective of the study is to assess the impact of AIG training on the lives of RUG members of MACH project. That is, on the effectiveness of training of local people for income generation activities - participants of Resource Users Groups (RUGs) - to specifically determine:

- To assess the effectiveness of training of RUG members for income generation activities to gain a better understanding of MACH impacts and appropriate AIG support.
- To compare the effectiveness of training with reference to gender, age, and ethnicity
- To determine which topics yielded the greatest impacts.
- To understand the factors leading to successful and unsuccessful entrepreneur development and training impact.

### 1.3 Scope of work

The scope of work if the assignment is as follows:

[2] DATA (as of June 2006) provided by CARITAS Fishery Program, Dhaka.

- Develop interview questionnaire through an interactive process with full participation of MACH as well as project beneficiaries and finalized the questionnaire through field tests.
- Collect data through interview and FGD from RUG members, MACH training delivery staff, review training materials and process
- Analysis data and prepare draft report for consultation and comments from the MACH project management
- Incorporate comments and suggestions from the MACH project management and finalize the report

## SECTION – II: METHODOLOGY AND IMPLEMENTATION

# 2 Methodology

The methodology of the training impact evaluation has been developed through a rigorous consultative process between MACH and CBSG. A combination of quantitative and qualitative investAIGtion methodology has been applied to offer an in-depth analysis of the impact of training that might have resulted on the RUG members. The assignment started with review of relevant training documents and other project related credit and training information. In addition to a sample survey, some complementary qualitative methods like targeted semi-structured interview of key informants and FGDs in combination with PRA techniques have been used to develop deeper analysis and insights of positive change for training impact. Following techniques were used in the study.

### 2.1 Survey

The training impact evaluation was primarily based on sample survey techniques – gathering data from the RUG members who have received at least one AIG training. The direct interview of the sampling unit through structured questionnaire by the trained enumerators was the main source of information. Questionnaire was developed in consultation with the MACH project and Caritas (the training provider) through a rigorous process. Sampling, quality control and data management/analysis was done in close consultation with MACH project focusing on the quality and reliability of the survey information. It used sound statistical methods in sampling so as to enable the study team to draw conclusions on the results of statistical significance tests. Following section gives more details on the survey methods.

Interviewing RUG member at HH site

**Sampling:** A total of 300 samples drawn from the RUG members who have received AIG training from the project. They are equally distributed among three project sites – 100 from each site. Proportional random sampling method was applied to select respondents from nine selected training recipients.

A structured and mostly pre-coded questionnaire was administered on selected sample units in the project area to gather data.

### 2.2 Questionnaire for Training Impact Evaluation

In line with the study objectives and scope of work, the training impact evaluation questionnaire was developed through a rigorous consultative process between CBSG, MACH project and Caritas. Training impact questionnaire mainly consisted of four parts; (i) the level of retention of training knowledge; (ii) utilization of the learned skills in income generation activities; (iii) any change of income due to utilization of training skills; and (iv) comparative effectiveness of various training programs offered by MACH project. The following steps were followed:

Identified issues coherent to training impact evaluation from training document review

- Discussed with the concerned people at Caritas to understand training objectives and expected impact
- Prepared a draft training impact assessment questionnaire and shared the draft questionnaire with MACH project, and got their input and finalized the draft for pre-test
- Updated the questionnaire based on the results of the field test
- Obtained approval from MACH project for field implementation

## 2.3 Focus Group Discussion (FGD) for Training Impact Evaluation

CBSG conducted FGD to have deeper understanding of the training impact and supplement and complement the findings of the survey. As many as 18 FGDs have been conducted at three project sites. Two third of the FGDs have been conducted with the male participants and the rest one third with the female participants from the RUG groups. FGD Dparticipants were carefully selected so that the group represents all types of training MACH has provided for credit and income generation. High frequency training such as poultry rearing, cow fattening etc had larger representation in the FGD participant selection. A FGD guideline/checklist was prepared in consultation with MACH project to facilitate the discussion. The guideline was also field-tested before field implementation.

*Male FGD at KM site*

## 2.4 Key Informant Interview (KII) for training impact evaluation

The key informants for training impact assessment were field trainer including Caritas and people responsible for designing the training course at Caritas. The key informant interviews for training assessment were done through a semi-structured questionnaire. CBSG conducted 10 such interviews for the assessment.

## 2.5 Review of training materials

CBSG conducted an in-depth review of training manuals, materials, and training evaluation reports etc. The review took place both at the Caritas headquarters as well as the project sites.

## 2.6 Field Staff recruitment and training

CBSG believes that the quality of interviewer and sincerity of interviewee are two key factors of collecting quality data. To this end, CBSG recruited 15 qualified and experienced field enumerators, one third of them were female and 3 team supervisors cum FGD moderator.

The field enumerators were provided with 2-day long training. The ist phase of training was in classroom situation in Dhaka. They were briefed on the projects concepts, interventions logics, survey instruments/tools, data collection techniques. The second phase was conducted at a MACH site (Sreemangal) on data collection techniques, scoring and problem solving in field situation. CBSG consultants rendered the training.

## 2.7 Study Area

The study covered all the three MACH project sites spread over three districts. They include:

- Hail Haor (HH) in Moulovibanzar district
- Turag Bangshai (TB) in Kalaikoir, Gazipur district
- Kangsha Malijhee (KM) in Sherpur district.

## 2.8 Quality Control and Field Editing

CBSG ensured quality control mechanisms as suggested in the scope of work. In addition, it has quality control measures, around 10% respondent were re-interviewed by the respective supervisor and required corrections was made on the spot. Field supervisors also checked the completed survey questionnaire on random basis for inconsistencies before departing from the field. A further review was made at the team meeting that took place every day at the end of data collection to check the doubtful figures. Besides, the key consultants also attended in the meeting for quality check and provided solution for the emerged difficulties.

### 2.9 Final Editing, coding and de-coding

For open-ended and pre-coded queries, data editing, coding and decoding was done at the central level in Dhaka.

### 2.10 Data management

Survey data was transferred into the electronic format using Access database, which again was transferred into SPSS format that provided the main frame for data analysis. Coding and de-coding was done to handle the data in the electronic form. The quantitative data were processed and analyzed by using statistical techniques. On the other hand qualitative information was presented in a narrative and matrix format. Some of the qualitative responses were taken using five/ten points Likert Type scoring scale. However, interpretation of scale explanations of scale is provided in the relevant sections.

A thorough consistency check was made before taking simple tables, data ranges, frequency distributions and descriptive tables. The basic tables worked as a guide to develop a more detail and cross-analytical tables for analysis. The analysis and tabulation plan was shared with the MACH counterpart for their input and comments.

### 2.11 Report Flow

This report is presented in four sections besides an executive summary. Section I contains background and objectives of the assessment. Section II includes methodology and implementation. Section III contains findings, and impact analysis, section IV presents conclusion and issues.In addition, there are annexes for further references.

### 2.12 Limitation of the study

A part of the survey questions were responded through Likert type scoring. Enumerator's individual judgment thus becomes important to determine the actual scoring. CBSG had emphasized this issue in the training to bring a common understanding among the enumerators.

AIG profit figure, loan uses (main use, first use, 2nd use etc.) could not be verified during the field investAIGtion. Many times the respondents could not recall actual amount during interview. They rather provided a perceived amount calculated based on a trend. Other than this few operational difficulties were faced during the fieldwork, which includes finding the survey respondent, traveling to difficult place. Excellent cooperation and support from MACH project staff had been very instrumental to address these difficulties.

## SECTION III: FINDINGS AND IMPACT ANALYSIS

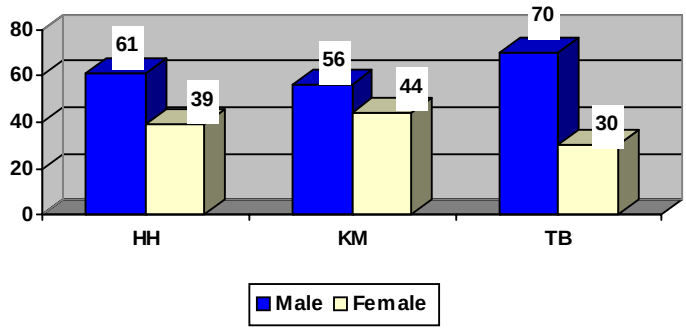
# 3 Basic Characteristics of the respondents

The study inquiry included a sample survey on 300 RUG members and conduction of 18 FGDs with 163 RUG members -who had received at least one AIG training during project life. In addition, 10 key informants interviews were conducted with CARITAS training team both at field and Dhaka level. The following section provides a general purview of the study respondents.

### 3.1 Sample Survey Respondents

The sample survey covered 300 respondents and equally represented from the three sites of the project. About 37.8% of the respondents were female and the remaining 62.3% were male. Proportion in female representation in the survey was relatively higher at KM site where as male participation was relatively higher in TB site. For details please see annex Table-A1.

**Figure-1: Gender and site wise distribution of the respondents**




Average family size of the respondents was found at 5.48 though family size of male respondents was relatively bigger than that of female respondents. About 43% of the respondents were either illiterate or can only sign. On the other hand 23.7% and 32.3% respondents had primarily and secondary levels of education respectively. The remaining 1.3% respondents had secondary and higher level of education.

**Table-2: Education level of the survey respondents**

| Education levels | HH | | TB | | KM | | Total | |
|---|---|---|---|---|---|---|---|---|
| | No. | % | No. | % | No. | % | No. | % |
| Illiterate/Can sign only | 40 | 40.0 | 32 | 32.0 | 56 | 56.0 | 128 | 42.7 |
| Primary Level | 30 | 30.0 | 28 | 28.0 | 13 | 13.0 | 71 | 23.7 |
| Secondary Level | 29 | 29.0 | 37 | 37.0 | 31 | 31.0 | 97 | 32.3 |
| Higher Secondary & above | 1 | 1.0 | 3 | 3.0 | 0 | 0.0 | 4 | 1.3 |
| Total (%) | 100 | 100.0 | 100 | 100.0 | 100 | 100.0 | 300 | 100.0 |

As far as the respondents' occupations are concerned, it was found that they were involved in an array of professions. However, self-employment had been overwhelmingly the main profession of majority of the respondents, particularly of the female respondents. On the other hand, 19.7% respondents- mostly male was involved in agriculture in their own land. The third main occupation of the respondents was found to be small business where both male and female were involved. No body from the respondents were found unemployed and no female respondents had claimed to be housewife.

**Table-3: Primary occupation status of the Respondent in percent**

| Occupation | HH (n=100) | | KM (n=100) | | TB (n=100) | | Total (n=300) |
|---|---|---|---|---|---|---|---|
| | Male | Female | Male | Female | Male | Female | % |
| Agriculture in own land | 16.4 | 2.6 | 37.1 | 6.7 | 32.1 | 4.5 | 19.7 |
| Share cropper | 6.6 | | 2.9 | | 7.1 | | 3.3 |
| Fishermen | 13.1 | | 4.3 | | 5.4 | | 4.7 |
| Agriculture labor | 1.6 | 2.6 | 2.9 | | 7.1 | | 2.7 |
| Industrial labor | | | 1.4 | | | | 0.3 |
| Construction labor | | | 1.4 | | | | 0.3 |
| Business - Small | 27.9 | 20.5 | 15.7 | 3.3 | 12.5 | 6.8 | 15.7 |
| Business - Large | 14.8 | 2.6 | 10.0 | | 12.5 | | 8.0 |
| NGO employee | 4.9 | | 4.3 | 3.3 | | | 2.3 |
| Self employed | 9.8 | 61.5 | 17.1 | 73.3 | 17.9 | 77.3 | 36.0 |
| Carpenter | | | 1.4 | | 1.8 | | 0.7 |
| Cottage industry | | 2.6 | | 13.3 | 1.8 | 11.4 | 3.7 |
| Student | | | 1.4 | | | | 0.3 |
| Others | 4.9 | 7.7 | | | 1.8 | | 2.3 |
| Total (%) | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

### 3.2 Dependency Ratio

The average family size was found at 5.48 for the sample survey respondents. Among them average number of female earner per family .80 while average male earner was per family was found at 1.6. The dependency ratio was found at 43:57 (3.1 members per family is dependent to rest of the family members).

### 3.3 FGD participants

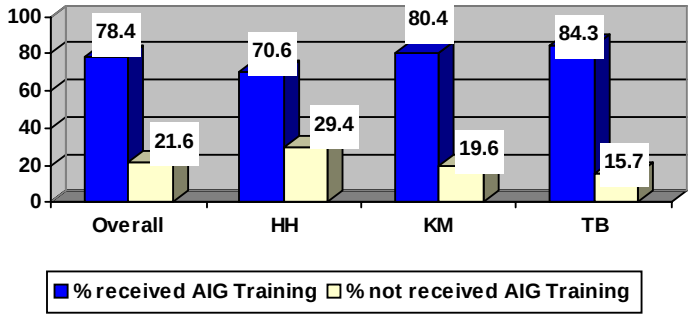
As part of the survey 18 FGDs were conducted on an exclusive basis – 10 with male and the remaining 8 with female RUG members. In total, 163 participants attended in the FGDs i.e. 9 persons on an average. All FGD participants had received at least one AIG training. Some of them received AIG training more than once. On an average each participants received 1.4 training on various AIGs. Average training received by female is relatively higher than male. Average age of the FGD participants was 34 years where females were relatively younger than male.

### 3.4 Proportion of RUG members received AIG training

The study intended to estimate the proportion of RUG members received AIG training so far. Although service statistics of CARITAS stated that 3,796 people (individual RUG members) have been provided with one or more number of AIG training. The current study samples have been drawn from RUG members who received at least one AIG training. It may be worth mentioning that AIG training had been earmarked only for the RUG members. In order to estimate the ratio of RUG members received AIG training, the study team had resorted to the awareness assessment study where 153 respondents were RUG members. They were randomly drawn from the list of RUG members irrespective of AIG training received or not. For a know population size (around 5,000 RUG members), the sample size is deemed to be fairly representative.

Of the total 153 RUG members in the awareness assessment, the survey found that 78.4% participants had at least received one AIG training though some of them received more than one AIG training. On the other hand, 21.6% respondents did not receive any AIG training. Site wise breakdown suggests that higher proportion of participants (84.3%) in the TB site received AIG training.

**Figure-2: Proportion of RUG members received AIG training by site**




As far as gender segregation is concerned, the study data shows that 81% of the male respondents received AIG training. In contrast only 73.6% female respondents had received AIG training.

**Table-4: Proportion of RUG members received at least one AIG training by gender**

| Particular | Gender | | | | | |
|---|---|---|---|---|---|---|
| | Female | | Male | | Overall | |
| | No. | % | No. | % | No. | % |
| Not received any AIG training | 14 | 26.4% | 19 | 19 | 33 | 21.6% |
| Received AIG training | 39 | 73.6% | 81 | 81 | 120 | 78.4% |
| Total | 53 | 100.0% | 100 | 100 | 153 | 100.0% |

# 4 Training Impact Analysis

Training impact assessment study was conducted on 300 RUG members who had received AIG training from MACH project. Many of them also received non AIG training as well. The following section provides an analysis of the findings generated through the survey conducted on the 300 respondents who are involved in one or more AIG activities.

## 4.1 Training profile of the participants

The project has delivered a range of AIG and Non AIG training to the 300 respondents who had participated in the study. The study shows that the project has provided AIG training and other non-AIG training to as many as 445 people and 339 [3]people respectively among the 300 survey respondents. Therefore it is obvious that one person had received more than one training either on AIG or non AIG or both. Training on AIG and non AIG areas provided to RUG members by the project. The ratio of IAG and Non AIG training was found at 57:43. Gender segregated data shows that average AIG training for female is higher than male while in non- AIG training, the average is quite similar for both male and female.

Vegetable cultivation, poultry/duck rearing, cow rearing and fish culture had been the mostly attended AIG training programs. Other than fish culture training, ratio of male and female participation in the AIG training programs were generally found similar. In fish culture male participation was found exceedingly high. Similarly, some AIG training programs such as Tailoring, Bamboo and cane, participation of female members were found very high.

**Table-5: AIG training attended by the respondents by gender**

| AIG related training | Male | | Female | | Total | |
|---|---|---|---|---|---|---|
| | No. | % | No. | % | No. | % |
| Cow rearing and fattening | 47 | 17.7 | 31 | 17.2 | 78 | 17.5 |
| Poultry/duck rearing | 47 | 17.7 | 35 | 19.4 | 82 | 18.4 |
| Fish culture/nursery | 52 | 19.6 | 12 | 6.6 | 64 | 14.3 |
| Plant nursery | 26 | 9.8 | 4 | 2.2 | 30 | 6.7 |
| Vegetable cultivation | 58 | 21.8 | 39 | 21.6 | 97 | 21.7 |
| Wheat cultivation | 8 | 3.0 | 2 | 1.1 | 10 | 2.2 |
| Vocational | 17 | 6.4 | | | 17 | 3.8 |
| Tailoring | | | 30 | 16.6 | 30 | 6.7 |
| Bamboo and cane | 1 | 0.3 | 12 | 6.6 | 13 | 2.9 |
| Other AIG training | 9 | 3.3 | 15 | 8.3 | 24 | 5.3 |
| Total | 265 | 100 | 180 | 100 | 445 | 100 |

On the other hand, Group management, Leadership Development and Resource Awareness had been mostly attended non-AIG training. No significant difference in male and female participation in the non-AIG training was found in the study.

**Table-5: Non-AIG training attended by the respondents by gender**

[3] Some of RUG members received more than one training

| Non AIG training | Male | | Female | | Total | |
|---|---|---|---|---|---|---|
| | No. | % | No. | % | No. | % |
| Group management | 84 | 39.6 | 51 | 40.1 | 135 | 39.8 |
| Resource Awareness | 36 | 16.9 | 19 | 14.9 | 55 | 16.2 |
| Leadership Development | 45 | 21.2 | 26 | 20.4 | 71 | 20.9 |
| Gender and Advocacy | 10 | 4.7 | 8 | 6.2 | 18 | 5.3 |
| FRUG Management | 14 | 6.6 | 10 | 7.8 | 24 | 7.0 |
| Finance/credit mgt. | 20 | 9.4 | 13 | 10.2 | 33 | 9.7 |
| Other Non AIG training | 3 | 1.4 | | | 3 | 0.8 |
| Sub Total | 212 | 100 | 127 | 100 | 339 | 100 |

### 4.2 Usefulness and Effectiveness of training courses

The study envisaged looking at the usefulness and effectiveness of the AIG and non AIG training. A five point scale (0-4)[4] was used to assess the perception of respondents on the training they received from the MACH project. The study revealed that overall mean score for AIG training usefulness was 2.6 and the effectiveness score was 2.3. For non AIG training courses the respective score for usefulness and effectiveness were found at 2.4 and 2.1. One can argue that AIG training program had made relatively more impact on the participants than the non-AIG training program. Please see annex table A-3 for details.

**Table-6: Average Usefulness and Effectiveness of AIG training courses by site**

| | Usefulness | | | | Effectiveness | | | |
|---|---|---|---|---|---|---|---|---|
| | HH | KM | TB | Overall | HH | KM | TB | Overall |
| Cow rearing and fattening | 2.7 | 2.9 | 2.6 | 2.7 | 2.7 | 2.4 | 2.2 | 2.5 |
| Poultry/duck rearing | 2.5 | 3.0 | 2.2 | 2.5 | 2.3 | 2.7 | 1.8 | 2.2 |
| Fish culture/nursery | 2.4 | 3.1 | 2.2 | 2.6 | 2.1 | 2.8 | 1.9 | 2.4 |
| Plant nursery | 2.1 | 2.7 | 2.3 | 2.3 | 1.8 | 2.7 | 2.2 | 2.1 |
| Vegetable cultivation | 2.5 | 2.6 | 2.6 | 2.6 | 2.4 | 2.3 | 2.2 | 2.3 |
| Wheat cultivation | 4.0 | 2.3 | 2.6 | 2.6 | 1.0 | 2.0 | 2.4 | 2.1 |
| Vocational | 1.9 | 3.0 | 1.9 | 2.0 | 1.9 | 3.0 | 1.9 | 2.0 |
| Tailoring | 3.0 | 2.5 | 2.6 | 2.6 | 3.0 | 2.3 | 2.7 | 2.6 |
| Bamboo and cane | . | 3.0 | . | 3.0 | . | 2.8 | . | 2.8 |
| Other AIG training | 2.2 | 2.5 | 2.6 | 2.3 | 1.9 | 2.5 | 2.0 | 2.0 |
| Total | 2.5 | 2.8 | 2.4 | 2.6 | 2.3 | 2.5 | 2.1 | 2.3 |

Among the various AIG training program bamboo and cane, cow rearing and fattening, poultry, and vegetable cultivation training had made more impact on the participants. On the other hand, for non-AIG training resource awareness and gender and advocacy had more impact on the participants.

[4] Scale: Usefulness and Effectiveness 0=Not at all, 1= Very Little, 2=Average, 3= High, 4= Very high

The table-6 provides a vivid picture of training usefulness and effectiveness based on three different site of MACH project. The data revealed that overall training impact both in terms of usefulness and effectiveness is better at KM site than other two sites.

The study also tried to look at the training impact on female and male participants. The study data revealed that both AIG and non AIG training had made more impact on female than male participants. Overall usefulness score of AIG training for female and male participants were 2.6 and 2.5 respectively and the effectiveness score were found 2.4 and 2.2 respectively. Similarly, usefulness score of non AIG training for female and male participants were 2.5 and 2.4 respectively and the effectiveness score were found 2.2 and 1.9 respectively. Please see table annex A-3.

The participants' response in likert scale (0-4) about usefulness and effectives was again classified as: 0-1 not useful, 2 moderately useful and 3-4 highly useful to bring simplicity to the analysis. The respondents had assessed (53.6%) of the training courses as highly useful to them. Another 36.5% courses were assesses as moderately useful and only 9.9% training courses were rated as not useful by the participants.

Among the various training courses bamboo & cane and cow rearing training were the most useful to the participants. On the other hand vocational training and plant nursery were least useful to the trainees.

**Table –7: Extent of Usefulness of AIG training by course type**

| Sl. | AIG training courses - type | Overall | | | |
|---|---|---|---|---|---|
| | | n | % Not useful | % Moderately Useful | % Highly useful |
| 01 | Cow rearing and fattening | 78 | 5.1 | 32.1 | 62.8 |
| 02 | Poultry/duck rearing | 83 | 13.3 | 32.5 | 54.2 |
| 03 | Fish culture/nursery | 64 | 9.4 | 32.8 | 57.8 |
| 04 | Plant nursery | 78 | 23.3 | 33.3 | 43.3 |
| 05 | Vegetable cultivation | 97 | 3.1 | 48.5 | 48.5 |
| 06 | Wheat cultivation | 10 | 10.0 | 40.0 | 50.0 |
| 07 | Vocational | 17 | 35.3 | 29.4 | 35.3 |
| 08 | Tailoring | 30 | 3.3 | 46.7 | 50.0 |
| 09 | Bamboo and cane | 13 | 7.7 | 15.4 | 76.9 |
| 10 | Other AIG training | 24 | 16.7 | 33.3 | 50.0 |
| | Total | 446 | 9.9 | 36.5 | 53.6 |

### *4.2.1 Usefulness of AIG training courses by site and gender*

Site wise segregated data revealed (table-8) that cow rearing was seen as most useful training at HH and TB site whereas in the KM site fish culture training was found to be the most useful AIG training. Bamboo and cane training had been useful only at KM site. Poultry and duck rearing training were found to be quite useful to the participants from HH and KM site but not so much useful to the participants of TB site. Therefore the study suggests that the geographical context is significant as far as the usefulness of AIG training is concerned.

**Table –8: Extent of Usefulness of AIG training by course type and site**

| Sl. | AIG training courses - type | HH Site | | | | KM site | | | | TB Site | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | n | % Not useful | % Av. Useful | % High useful | n | % Not useful | % Av. Useful | % High useful | n | % Not useful | % Av. Useful | % High useful |
| 01 | Cow rearing and fattening | 36 | 11.1 | 22.2 | 66.7 | 23 | | 43.5 | 56.5 | 19 | | 36.8 | 63.2 |
| 02 | Poultry/duck rearing | 30 | 16.7 | 23.3 | 60.0 | 22 | | 36.4 | 63.6 | 31 | 19.4 | 38.7 | 41.9 |
| 03 | Fish culture/nursery | 26 | 15.4 | 34.6 | 50.0 | 25 | | 20.0 | 80.0 | 13 | 15.4 | 53.8 | 30.8 |
| 04 | Plant nursery | 12 | 50.0 | | 50.0 | 6 | | 66.7 | 33.3 | 12 | 8.3 | 50.0 | 41.7 |
| 05 | Vegetable cultivation | 22 | 4.5 | 54.5 | 40.9 | 37 | 2.7 | 48.6 | 48.6 | 38 | 2.6 | 44.7 | 52.6 |
| 06 | Wheat cultivation | 1 | | | 100.0 | 4 | 25.0 | 25.0 | 50.0 | 5 | | 60.0 | 40.0 |
| 07 | Vocational | 8 | 50.0 | 25.0 | 25.0 | 2 | | | 100.0 | 7 | 28.6 | 42.9 | 28.6 |
| 08 | Tailoring | 7 | | 28.6 | 71.4 | 14 | 7.1 | 57.1 | 35.7 | 9 | | 44.4 | 55.6 |
| 09 | Bamboo and cane | | 0.0 | 0.0 | 0.0 | 13 | 7.7 | 15.4 | 76.9 | | | | |
| 10 | Other AIG training | 17 | 17.6 | 35.3 | 47.1 | 2 | | 50.0 | 50.0 | 5 | 20.0 | 20.0 | 60.0 |
| | Total | 159 | 17.0 | 28.9 | 54.1 | 148 | 2.7 | 38.5 | 58.8 | 139 | 9.4 | 43.2 | 47.5 |

Gender-wise picture about usefulness revealed that cow-rearing, wheat cultivation, vegetable cultivation were found almost equally useful to both male and female where as poultry was found more useful to female and on the contrary fish culture was found more useful to male respondents. Please see the detail table in the annex table A-4.

### *4.2.2 Usefulness of non-AIG training courses by site and gender*

The training impact assessments study respondents had collectively received 339 training on different types of non- AIG related training. Group management has been the mostly availed training by the respondents followed by leadership development training. 45% of the respondents had received the group management training. 46.6% of the non AIG training was rated as highly useful to the participants whereas 48.4% training were found to be moderately useful to the participants. 5% training were rated as not useful to the participants. Among the various non-AIG training courses, Gender and Advocacy training were seen to be the most useful to the participants followed by Credit Management training. Similarly leadership development training and FRUG management training were significantly high in the moderately useful category. 8.5% respondent

also saw leadership training not useful to them. On the group management training, less than half of the participants had found the training very useful but surprisingly almost similar number of participants found the training only moderately useful and about 6% participants found the training not useful to them.

**Table-9: Extent of Non-AIG training usefulness**

| Sl. | Non- AIG training | Overall | | | |
|---|---|---|---|---|---|
| | | n | % Not useful | % Moderately Useful | % Highly useful |
| 1 | Group management | 135 | 5.9 | 46.7 | 47.4 |
| 2 | Resource Awareness | 55 | 1.8 | 49.1 | 49.1 |
| 3 | Leadership Development | 71 | 8.5 | 53.5 | 38.0 |
| 4 | Gender and Advocacy | 18 | .0 | 44.4 | 55.6 |
| 5 | FRUG Management | 24 | .0 | 58.3 | 41.7 |
| 6 | Finance/credit mgt. | 33 | 3.0 | 42.4 | 54.5 |
| 7 | Other Non AIG training | 3 | 33.3 | .0 | 66.7 |
| | Total | 339 | 5.0 | 48.4 | 46.6 |

Male and female ratio in non AIG training was 60:40. Gender segregated data on the usefulness of non- AIG training reveal that female participant found the non-AIG training more useful than their male counterpart. 52.2% cases of non AIG training found useful to the female participants whereas the ratio for the male participants for the same was only 43.9%. Among the female participants, Gender & advocacy, group management were found to be highly useful training. Other the other hand, male participants found credit management and resource awareness training more useful to them. The study also looked at the usefulness of non-AIG training courses by site. It has been found the some courses are highly useful in one site than others. For instance – group management, resource awareness and gender and advocacy are highly useful in HH site than other two sites. Likewise, leadership development has been found more useful in TB site. Detail site and gender-wise tables are presented in the annex table A-5 and 6.

### *4.2.3 Usefulness of training courses based on educational background*

The training impact study also tried to look at the training usefulness from the perspective of participants' educational background. There is not significant co-relation found between the participants' educational background and the level of usefulness. This holds true for both AIG and non-AIG training. It can be assumed that the training content was prepared and training delivery was made in a way that even illiterate people could follow and understand the training subject. Table is presented in the annex A-7.

## 4.3 Effectiveness of AIG training courses

Like usefulness of training, there is a degree of effectiveness of training effectiveness. The degree (0-4 scale) has been used in a relative term. As far as the AIG training effectiveness is concerned, the study revealed that fish culture training had been rated as the most effective AIG training followed by tailoring and bamboo & cane. In total 43.9% AIG training had been rated as highly effective. In comparison, 36.5% AIG training had been rated as moderately effectively and 19.5% training had been rated as not effective. It is worthy to mention here that about 53% mentioned that the AIG courses were useful to them. It indicates that the extent of usefulness and effectiveness are not same. Plant nursery and vocational training had been identified as the least effective training. Vegetable cultivation was seen to be moderately effective. Since highest number of people had received this training, there is great potential lies with the vegetable cultivation training provide training quality is improved.

**Table –10: Effectiveness of AIG training courses**

| Sl. | AIG training type | Overall Effectiveness of AIG training |
|---|---|---|

| | | n | % Not Effective | % Moderately Effective | % Highly Effective |
|---|---|---|---|---|---|
| 01 | Cow rearing and fattening | 78 | 14.1 | 37.2 | 48.7 |
| 02 | Poultry/duck rearing | 83 | 24.1 | 36.1 | 39.8 |
| 03 | Fish culture/nursery | 64 | 21.9 | 21.9 | 56.3 |
| 04 | Plant nursery | 30 | 33.3 | 20.0 | 46.7 |
| 05 | Vegetable cultivation | 97 | 12.4 | 54.6 | 33.0 |
| 06 | Wheat cultivation | 10 | 30.0 | 30.0 | 40.0 |
| 07 | Vocational | 17 | 41.2 | 17.6 | 41.2 |
| 08 | Tailoring | 30 | 6.7 | 40.0 | 53.3 |
| 09 | Bamboo and cane | 13 | 7.7 | 38.5 | 53.8 |
| 10 | Other AIG training | 24 | 29.2 | 33.3 | 37.5 |
| | Total | 446 | 19.5 | 36.5 | 43.9 |

### *4.3.1 Effectiveness of AIG training based on gender*

As far as male and female perspective is concerned, out of 181 female AIG training recipients, only 19.5% said that the training was highly effective to them. In contrast, 41.5% male said the training was highly effective. It is worthy to pointed it out here that 53% female had found AIG trainings were useful to them (see annex A-3). It indicates that the extent of usefulness differs significantly from effectiveness for female RUG members. On the other hand 36.5% female participants said that the training was not effective whereas only 21.9% male participants said the same. In other words, the AIG training was more beneficial to the male participants than the female.

**Table –11: Extent of Effectiveness of AIG training courses by gender**

| Sl. | AIG training type | Female | | | | Male | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | n | % Not E'ves | %Moderately E'ves | % Highly E'ves | n | % Not E'ves | % Moderately E'ves | % Highly E'ves |
| 01 | Cow rearing /fattening | 31 | 12.9 | 35.5 | 51.6 | 47 | 14.9 | 38.3 | 46.8 |
| 02 | Poultry/duck rearing | 36 | 11.1 | 27.8 | 61.1 | 47 | 34.0 | 42.6 | 23.4 |
| 03 | Fish culture/nursery | 12 | 58.3 | | 41.7 | 52 | 13.5 | 26.9 | 59.6 |
| 04 | Plant nursery | 4 | 25.0 | 25.0 | 50.0 | 26 | 34.6 | 19.2 | 46.2 |
| 05 | Vegetable cultivation | 39 | 12.8 | 53.8 | 33.3 | 58 | 12.1 | 55.2 | 32.8 |
| 06 | Wheat cultivation | 2 | | 50.0 | 50.0 | 8 | 37.5 | 25.0 | 37.5 |
| 07 | Vocational | | | | | 17 | 41.2 | 17.6 | 41.2 |
| 08 | Tailoring | 30 | 6.7 | 40.0 | 53.3 | | | | |
| 09 | Bamboo and cane | 12 | 8.3 | 33.3 | 58.3 | 1 | | 100.0 | |
| 10 | Other AIG training | 15 | 33.3 | 40.0 | 26.7 | 9 | 22.2 | 22.2 | 55.6 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Total | 181 | 36.5 | 47.5 | 19.5 | 265 | 21.9 | 36.6 | 41.5 |

### *4.3.2 Effectiveness of AIG training and geographic location.*

Effectiveness of the AIG training courses has also been looked at from point of view. It has been found that RUG members of KM rated relatively high in the effectiveness than other two sites. Couse-wise Fish culture and poultry were found slightly more effective in the KM site while cow rearing was rated as better effective in HH and TB sites. Therefore, training courses has significant relation with geographical locations, culture and social conditions. Detail table is presented in the annex A-8.

### *4.3.3 Effectiveness of AIG training based on educational background*

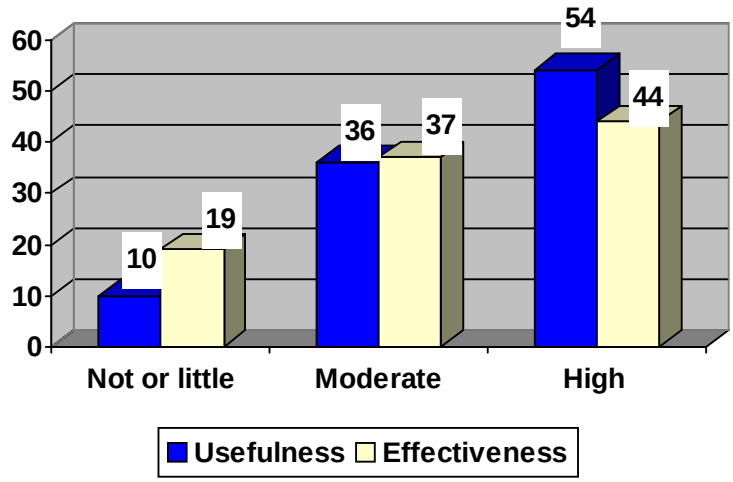
The study tried to look at the training effectiveness in relation to the educational background of the participants. The study revealed quite interestingly that AIG training did not have any bearing on the level of educational attainment. Interestingly, even illiterates and people with very little education found the training more effective than people with relatively higher level of education. AIG training which requires hands on skills such as tailoring, bamboo & cane, cow fattening etc, were found to be more effective to the less educated people. Please see data table in the annex A-10.

## 4.4 Usefulness and Effectiveness[5]

A comparative analysis of AIG training usefulness and effectiveness reveals that at the lower end of the spectrum, trainings were more effective than usefulness. In the moderate category, usefulness and effectiveness seemed to be almost similar. But in the higher end of the spectrum, training usefulness out performs effectiveness.

That is to say, participants had gained relatively high when utility of the training was lower. As the training utility increased the relative increase of gain slowed down though the increase in absolute terms continues to grow.

**Figure-3: Usefulness and effectiveness of overall AIG training in percent**

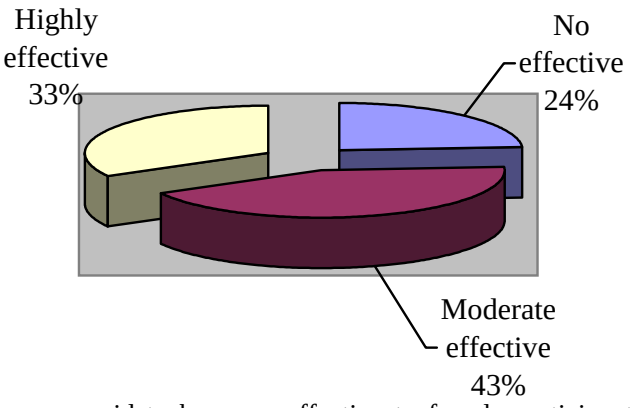



[5] Training usefulness is defined such that the participants find the knowledge imparted through the training can actually be used at work. On the other hand, training effectiveness had been delineated in terms of real gain realized by the participants from utilizing the training knowledge.

### 4.5 Effectiveness of non AIG training courses

The non AIG training was attended by 339 participants from among the study respondents. 33% of them said that the training was highly effective. Another 42.5% said the training was moderately effective and the remaining 24.5% perceived that the training was not effective. Gender and advocacy training were seen to the most effective among the various non-AIG training. On the other hand leadership development is the least effective training. Group management training was mostly attended training followed by leadership development. As a whole group management training can be rated as moderately effective training. Similarly resource awareness training was said to be a moderately effective training program.

**Figure-4: Effectiveness of overall non-AIG training in percent**




Non AIG trainings was said to be more effective to female participants than the male. 40.9% female perceived non-AIG trainings as highly effective where as only 28.3% male participants saw the training same way. However, 43.4% male perceived that the non AIG training was moderately effective as opposed to 40.9% by the female participants. Except resource awareness, in every other course the female participants perceived training effectiveness much higher. Only in recourse awareness course, male participants had perceived it as the most effective training in non-AIG category. While looking at site-wise breakdown, it has been found that non-AIG training courses are more effective in HH followed by KM and TB site. Please see table in the annex A-9 & A-11.

### 4.6 Priority ranking of training course

The survey made an attempt to capture importance of training courses to the respective RUG member. The respondents have been asked to rank the training courses, which they had undergone. The study deliberately put together AIG and Non AIG training courses to see the priority. It was found that none of non-AIG courses were ranked top (first) by the participants. All the non-AIG courses were ranked from three and onwards. Among the AIG training courses, Vegetable Cultivation has been ranked top by majority of the respondents followed by poultry and cow rearing. The detail table is presented in the annex A-10.1.

# 5 Impact of Training on AIG Activities

## 5.1 Loan for Income Generating Activities

It was expected that the people received AIG training would take loan to take IG activities. The sample survey study on 300 respondents showed that vast majority (82 %) of the trained people had taken loan though 18% participants had yet to take any loan till the study period. At the HH site the highest number of trained people (87%) had taken loan where as at the KM site only 77% people had taken loan for AIG activities. In the TB site 82% people had taken loan so far. On an average 18% did not take any loan from MACH but had training on at least one AIG courses.

Loan portfolio had also been looked at among the 163 FGD participants who had taken part in the training impact assessment study. Among them 16% did not receive any loan for AIG activities. In other words 84% FGD participants took loan for AIG. Out of them 46.6% had initiated AIG on which they had received training from MACH and the other 37.4% people had invested in the AIG where they did not receive any training.

**Table-12: Distribution of FGD participants by training received and loan use**

| Gender | No of participants taken AIG training | In percent | | |
|---|---|---|---|---|
| | | Loan not taken for any AIG | Loan taken for trained AIG | Loan taken for non trained AIG |
| Male | 95 | 14.7 | 43.1 | 42.2 |
| Female | 68 | 17.6 | 51.5 | 30.9 |
| Total | 163 | 15.9 | 46.6 | 37.4 |

## 5.2 Utilization of AIG Loan

RUG members have been taking loan from MACH project since 2001. Cow rearing had been the main AIG over the years. Whereas small business, Fish culture and poultry are the members took the second and third major AIG activities. In the initial year more money was invested on the main AIG i.e. cow rearing. But in recent years, highest amount of investment had been making in Poultry followed by cow rearing and business/fish culture. However, there had been consistent growth in borrowing for AIG activities over the years and thereby more investments were being made in all three main business sectors though quite disproportionately.

**Table-12: Year-wise AIG types and amount borrowed by the RUG Members**

| Year | Main three types of AIG and average borrowed amount | | | | | |
|---|---|---|---|---|---|---|
| | 1st Main AIG Type | Av. loan Amount | 2nd Main AIG Type | Av. loan Amount | 3rd Main AIG Type | Av. loan Amount |
| 2006 | Cow rearing | 9712.0 | Business/ Fish culture | 6900.0 | Poultry | 13454.5 |
| 2005 | Cow rearing | 8412.5 | Business/ Fish culture | 8125.0 | Poultry | 8125.0 |
| 2004 | Cow rearing | 7369.0 | Business/ Fish culture | 6285.7 | Poultry | 11875.0 |
| 2003 | Cow rearing | 6356.8 | Business/ Fish culture | 4933.3 | Poultry | 9857.1 |
| 2002 | Cow rearing | 5642.8 | Business/ Fish culture | 4700.0 | Nursery | 5750.0 |
| 2001 | Cow rearing | 5500.0 | Business/ Fish culture | 5166.7 | Small scale industry | 3250.0 |

### 5.3 AIG Type and training relevance

The training impact study tried to look at the extent of AIG had been supported by relevant training. The study data shows that only 46.2% AIG had been supported by relevant training. The vast majority of the AIG (over 53.8%) did not have proper training. Three most important AIG include cow rearing, small business and fish culture. Only few had received training on small business. Training received on fish culture and cow rearing had been 63.6% and 51% respectively.

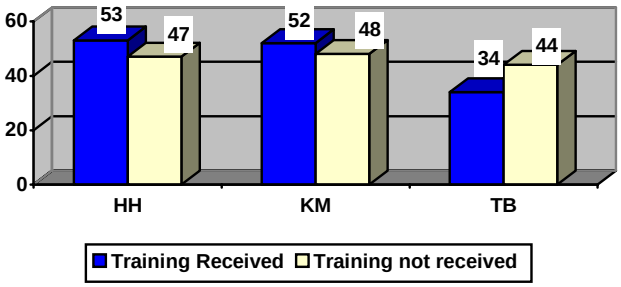
In-depth analysis revealed that the production oriented AIG had been better supported by training than non-production like trading activities (small business). Productive AIG with new technology and methods such as Poultry, vegetable gardening, tailoring, nursery etc had been more attached with training. Traditional AIG like small businesses had little linkages with AIG training.

**Table-13: Types of AIG investment and relevant training**

| | AIG Type | Overall | | |
|---|---|---|---|---|
| | | n | % Received training on the same AIG | % not received training on the same AIG. |
| 01 | Cow rearing and Fattening | 92 | 51 | 49 |
| 02 | Fish Culture/trading | 44 | 63.6 | 36.4 |
| 03 | Poultry | 27 | 85.1 | 14.9 |
| 04 | Goat Rearing | 2 | 50.0 | 50.0 |
| 05 | Small Scale Industry | 12 | 33.6 | 67.6 |
| 06 | Vegetable Gardening/Business | 15 | 80.0 | 20.0 |
| 07 | Nursery | 9 | 66.7 | 33.3 |
| 08 | Wheat Cultivation | 1 | 100.0 | 0.0 |
| 09 | Technical Trade (Vocational) | 1 | 100.0 | 0.0 |
| 10 | Tailoring/Embroidery | 9 | 77.8 | 22.2 |
| 11 | Small/Petty business | 77 | 3.9 | 96.1 |
| | Total | 289 | 46.2 | 53.8 |

Among the project three sites, more than 50% AIGs at HH and KM site had relevant training. In contract only 33.7% AIGs had relevant training at TB site. Cow rearing had been the biggest sub-sector in AIG at all three sites. But there were wide gaps in training delivery to the relevant people in this sub-sector. Everybody in KM and HH site received training those had AIGs on poultry.

**Figure-5: Loan Invested by types of AIG and relevant training taken**




More than one third of the respondents were female. About half of them had relevant training to their respective AIGs. Cow rearing had been the major AIG for them followed by small business

and poultry. 88.2% female involved in poultry had received training on it while only 45.9% female received relevant training for cow rearing AIG. Surprisingly none of the female received training on small business though this had been the second largest AIG for female. Everybody involved in tailoring and embroidery had relevant training.

As far as the male were concerned, 46.2% of them had relevant training to their respective AIGs. Cow rearing had been the major AIG for male followed by small business and fish culture. 63.6% male with AIG on fish culture had received training while 51% had relevant training on cow rearing AIG. Only 3.9% male involved with small business related AIG received training on the relevant subject. Reference tables are presented in the annex table A-12 & A-13.

### 5.4 Training and Credit for AIG

The study respondents have received credit on both main AIGs and other AIGs. Like wise, RUG, members had also received training on main AIG as well as on supplementary AIGs. The study revealed that out of the total 364 AIGs receive credit from the project, 58% are main AIGs and the remaining 42% are supplementary AIGs (not main AIG).

While looking at the training aspects on the AIG, the study revealed that only 38% AIGs as a whole regardless of main and supplementary AIG had received training and vast majority of the AIGs (62%) did not received training. However, in comparison to main AIG and supplementary AIG, 54% of the main AIG had received relevant training while 45% of the main AIG did not received training. On the other hand, only 15% supplementary AIG had received training and 85% did not received the training.

**Table-14: Distribution of RUG members by their main AIG and training and credit received.**

| Particulars | Training received on the same AIG | Training not received on the same AIG | Total |
|---|---|---|---|
| Credit received **on MAIN AIG** | 114 (54%) | 97 (45%) | 211 (100%) (58%) |
| Credit Received **(not on Main AIG)** on other AIGs | 22 (15%) | 131 (85%) | 153 (100%) (42%) |
| Total | 136 (38%) | 228 (62%) | 364 (100%) |

### 5.5 Loan uses for Non AIGs

The study revealed that besides AIG (main and supplementary), a portion of the loan had been used for various other purposes including meeting family expenses. Out of the total 300 respondents, 165 respondents mentioned that they had used part of their loan for non-AIG purposes, which was 55% of the total sample. Non-AIG use of loan is significantly high in HH site but quite low at TB site.

The study data shows that in 36.4% cases the loan was used for some kind of capital expenditure including purchase of land or land mortgaged in, Tube well/Shallow machine purchase, House renovation etc. But the major part was used for recurring expenses such as incurring family expenses and to pay for agricultural expenses including pay for day labours, buying inputs etc. However, in 7.3% cases the expenditure made also has the potential to earn some income as it can be called semi-AIG. They include purchase of Rickshaw/VAN, Purchase of medicine/goods for small business, which the RUG members already had without MACH support.

**Table-15: Use of loan other than IG activities in percent by site**

| Description | HH | | KM | | TB | | Total | |
|---|---|---|---|---|---|---|---|---|
| | No. | % | No. | % | No. | % | No. | % |
| Meeting immediate livelihood expenses | 22 | 48.8 | 6 | 13.3 | 17 | 37.7 | 45 | 100 |
| Meeting Agricultural Expenses | 21 | 38.8 | 24 | 44.4 | 9 | 16.6 | 54 | 100 |
| Capital Investment type expenses | 24 | 40.0 | 23 | 38.3 | 13 | 21.6 | 60 | 100 |
| Used for income generating purpose | 4 | 33.3 | 7 | 58.3 | 1 | 8.3 | 12 | 100 |
| Total | 68 | 41.2 | 57 | 34.5 | 40 | 24.2 | 165 | 100 |

In the HH site, other types of loan use were found for meeting immediate livelihood expenses while it is lowest in the KM site. On the other hand, RUG members of KM site also used taken loan for supplementary AIGs.

### 5.6 Training Usefulness in AIG

Training impact study also looked at the usefulness of training with regard to the utilization of loan. The study did not provide any conclusive picture. The perception on the impact of training on loan utilization had been quite lop sided both on the positive and negative sides. The study data showed that overall 40.8% loans taken by the respondent were highly benefited from the respective training. On the other hand, 36.9% cases training had hardly played any role on the loan utilization. Another 12.2% loans were highly impacted by the training. The training from very little to average impacted the remaining 10.1% loans.

**Table-16: Usefulness of loan with AIG training received**

| Code | Type of AIG | Extent of training Usefulness | | | | |
|---|---|---|---|---|---|---|
| | | Not at all | Very little | Average | High | Very high |
| 01 | Cow Fattening | 42.0 | 1.1 | 4.0 | 13.1 | 39.8 |
| 02 | Fish Culture/Business | 34.6 | 2.6 | 6.4 | 10.3 | 46.2 |
| 03 | Poultry | 23.1 | 15.4 | 3.8 | 7.7 | 50.0 |
| 04 | Goat Rearing | 33.3 | 33.3 | 33.3 | | |
| 05 | Small Scale Industry | 78.3 | | 8.7 | 8.7 | 4.3 |
| 06 | Vegetable Gardening/Business | 10.0 | 15.0 | 5.0 | 25.0 | 45.0 |
| 07 | Nursery | | 7.7 | | 15.4 | 76.9 |
| 08 | Wheat Cultivation | | | | 100.0 | |
| 09 | Technical Trade | | | | | 100.0 |
| 10 | Tailoring/Embroidery | 33.3 | | 16.7 | 16.7 | 33.3 |
| 11 | Small/Petty Business | 100.0 | | | | |
| Total | | 36.9 | 4.7 | 5.5 | 12.2 | 40.8 |

The impact of training on various AIG types did differ significantly. For example, AIGs related to poultry, nursery and to some extent fish culture had benefited tremendously from the training. On

the other hand impact of training on AIGs such as cow fattening, goat rearing and tailoring had been quite low. In small business sector, the impact of training were said to be nil.

### 5.7 Profitability of AIGs [6]

As mentioned earlier in this report that cow rearing, fish culture and trade, and small trade had been the major AIGs for the project participants. The study revealed that poultry and cow rearing had been more prolific in terms of income than other AIGs. Though fish culture and fish trading was more traditional, income level from this trade was not as good. Income earned from the small business sub sector was found to be quite poor though loan amount employed to this sub sector was seen to be relatively high.

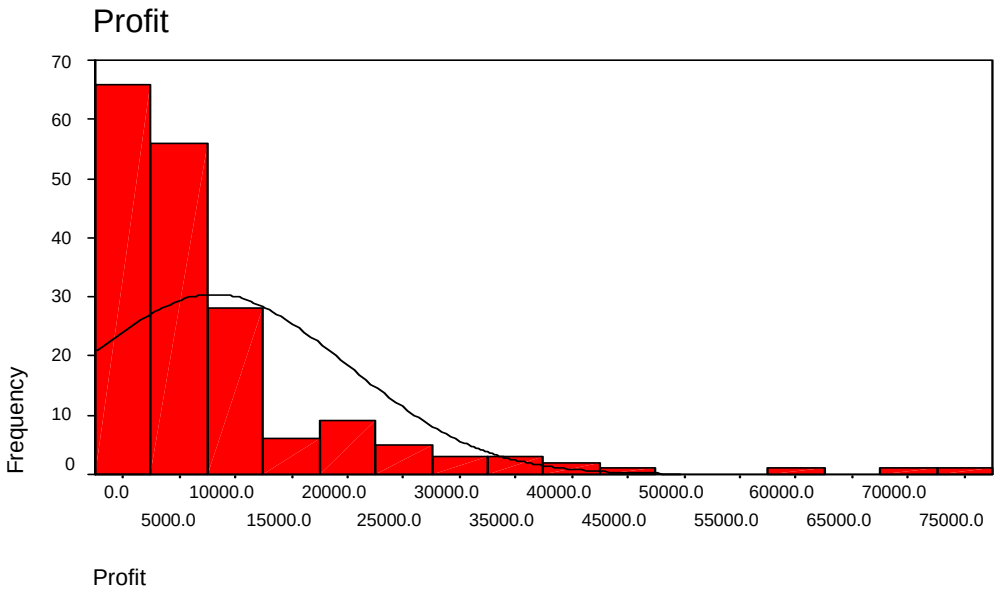
Earning ratio against the loan invested was seen to be highest at the vegetable businesses. On the other hand per capita earning had been the highest for vocational trade. But in both of these sub sectors, only a handful of participants were involved in as a main AIG.

**Table-17: Type of Main AIG of the RUG members by average profit and loan size**

| SL | AIG Type | No. of RUG members with his/her main AIG | Average profit in taka | Average loan received in the year 2005 | Loan used for that Main AIG |
|---|---|---|---|---|---|
| 01 | Cow rearing and Fattening | 66 | 5332 | 9333 | 8,571 |
| 02 | Fish Culture/trading | 36 | 3763 | 9545 | 8,545 |
| 03 | Poultry | 25 | 5356 | 8909 | 8,727 |
| 04 | Goat Rearing | 4 | 2567 | 6500 | 5,750 |
| 05 | Small Scale Industry | 11 | 3556 | 12600 | 10,400 |
| 06 | Vegetable Gardening/Business | 9 | 5315 | 7250 | 6750 |
| 07 | Nursery | 5 | 4546 | 8500 | 8500 |
| 08 | Wheat Cultivation | 1 | 4060 | No loan taken last year | No loan taken last year |
| 09 | Technical Trade (Vocational) | 2 | 7533 | No loan taken last year | No loan taken last year |
| 10 | Tailoring/Embroidery | 6 | 5775 | 9000 | 9000 |
| 11 | Small/Petty business | 17 | 1804 | 9303 | 10424 |

[6] Income or profit figure shows the perceived value rather than the actual. It was beyond the scope of the enumerators to verify the profit figure though adequate probing was made. Some of the respondents were unable to tell the amount or not willing to tall the profit figure.

***General scenario of profit generation***




The histogram above shows that RUG members fell in the lower income profit generation bracket in most cases. A significant portion of RUG members generated profit between 0 and Taka 5000 from the AIG activities. The trend of the graph expressed that higher number RUG members generated smaller amount of profit from income generating activities support by the project with training and credit.

### *5.7.1 Average profitability of MAIN AIG [7] by site*

Out of the 182 main AIG studied in the training impact assessment, it was found that the average income of each AIG stood at Tk. 5,610 or Tk. 20 per day. Besides, each person got on an average 280 days work in the main AIG.

There had been geographical difference in the level of income from the main AIGs. Income at the KM site was significantly higher than other two sites. On the other hand income level at the TB site was found to be very low. As far as the number of main AIGs was concerned, highest numbers of main AIGs were taken at HH site whereas least number of main AIGs were taken at the KM site. Given that income opportunity at the KM site was relatively high, there might be more opportunity exists to expand AIGs at the KM site.

**Table 18: Main AIG by site and average profit trend**

| Project Site | No. of RUG members with main AIG | Average profit in taka | Average no. of days worked[8] | Per day average profit/income |
|---|---|---|---|---|
| HH | 66 | 5423 | 276 | 20 |
| KM | 57 | 7321 | 303 | 24 |
| TB | 59 | 3852 | 262 | 15 |
| Total | 182 | 5610 | 280 | 20 |

Looking at the gender aspects of the earning of main AIG, it was found that male participants had undertaken more AIGs than the female and they had more involvement in terms of work days and also earned significantly high.

**Table 19: Main AIG by gender of respondent and average profit trend**

| Participants Type | No. of RUG members with main AIG | Average profit in taka | Average no. of days worked | Per day average profit/income |
|---|---|---|---|---|
| Female | 74 | 4523 | 250 | 18 |
| Male | 108 | 6214 | 300 | 21 |
| Total | 182 | 2789 | 280 | 20 |

[7] RUG members who took loan for AIG were again categorized by Main AIG –based on number of times loan taken on the particular AIG, his/her involvement and size of loan.

[8] Data rather shows trend than actual as respondents could not calculate his/her effort to a particular AIG instantly

# 6 Impact of training on Income Sources and Profession

## 6.1 Change in profession during fishing season

The study tried to assess the income source of the respondent prior to the MACH project both during the peak fishing season and lean fishing season. The study findings revealed a structural change in the source of income among the respondents since the project had started. There had been sharp decline on fishing for family income both during peak season as well as lean season. Income from agricultural activities and businesses including fish related business had emerged as major source of income. On the other hand people were less dependent on day labourer for earning. In other words, there was an increased adoption of entrepreneurial approach both on farm and off firm (even outside traditional fishing occupation) to have livelihood.

**Table-20: Change in profession of RUG members by fishing season**

| Sl No | Major Income Source | Peak Season of Fishing | | Off season of fishing | |
|---|---|---|---|---|---|
| | | Before project | Now 2005-6 | Before project | Now 2005-6 |
| 01 | Agricultural Work | 23.8 | 26.7 | 27.8 | 29.0 |
| 02 | Business | 6.4 | 10.9 | 7.1 | 11.6 |
| 03 | Fishing | 21.4 | 6.4 | 9.4 | 1.6 |
| 04 | Professional/Technical work | 5.7 | 9.8 | 6.0 | 10.4 |
| 05 | Day Labour | 11.3 | 5.9 | 14.9 | 6.2 |
| 06 | Fish Culture/ Fish Nursery/Fish related business | 3.2 | 7.9 | 3.0 | 6.9 |
| 07 | Income from Cattle/Trees/Fruits | 10.8 | 13.7 | 13.4 | 13.5 |
| 08 | Poultry | 12.3 | 14.0 | 13.1 | 16.0 |
| 09 | Income from Service | 4.1 | 4.2 | 4.4 | 4.1 |

## 6.2 Structural changes in income sources

The structural change of income source and thereby change of occupation have made a positive impact on the economical condition of the respondents and had contributed to improved livelihood security. 96% of the respondents now have three square meals a day. Only 1% respondent said they could afford to have only one meal a day. The rest 3% said that they had two meals a day.

**Table-21: Distribution of the RUG members by economic class and site in percent**

| Eco Category | HH | TB | KM | Total |
|---|---|---|---|---|
| Surplus | 51.0 | 62.0 | 65.0 | 59.3 |
| Break-even | 33.0 | 34.0 | 24.0 | 30.3 |
| Occasional deficit | 11.0 | 3.0 | 10.0 | 8.0 |
| Usually deficit | 5.0 | 1.0 | 1.0 | 2.3 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |

The study also revealed that more than 59% respondent now actually have surplus income meaning that they can even save after meeting their regular expenses. 30.3% respondents maintains their family at the break even level meaning they can not anything but there has been no deficit of income for them. Another 8% households have occasional deficit of income and only 1% household have chronic deficit of income.

Household income level does vary among the three different project sites. People made more income at the KM site than other two sites. In the HH site relatively fewer people had surplus income. Among the three MACH site, least number of household had income deficit at TB site.

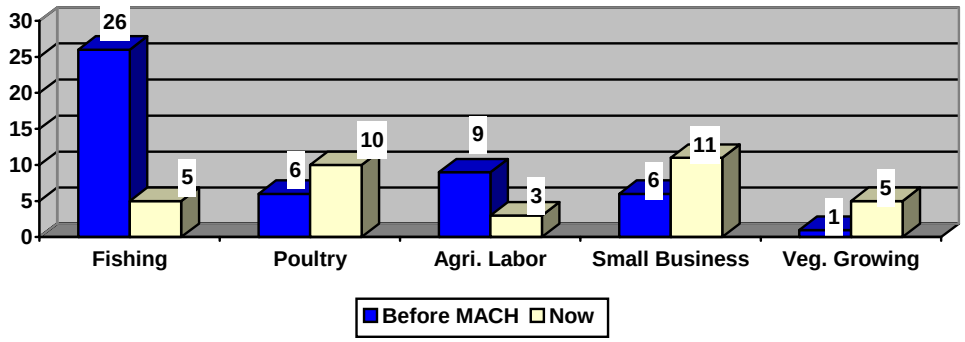
### 6.3 Effect of MACH on income source and profession

The study tried to look the occupational pattern and income level of the project participants in a comparative manner i.e. prior to the MACH project and now. The response from the participants revealed that almost all the participants had more than one source of income for their livelihood. The participants had experienced a gradual shift of their occupation over the last few years. Fishing had been the prominent profession as 52.3% of the respondents were involved in fishing and fetched around 25.6% of their income from that sector. As far as agricultural work is concerned, the changes in terms of occupation and income dependency had not changed much – only few more people are engaged in agriculture but for less income.

Agricultural work and fishing had been the major traditional occupation and income sources for the people. Since the project started, a major shift had occurred particularly in the fishing sector employment and earning. Now only 18% people are involved in fishing and their income dependence have come down even more – just 5.12%. On the other hand poultry, small business, vegetable gardening, fish culture had become more prominent in employment and income source.

The following figure depicts change income ratios for some significant sources while detail table is presented in annex. A-15.

**Figure-6: Change in income ratios**




There has been a significant change in the profession of the RUG members due to AIG training and relevant AIGs. The most significant shift has been noticed in fishing profession and income ratios. Impact is evident in the income source areas where MACH provided training and AIG support.

### 6.4 Change and effect on fishing

The training impact study also tried to look at the employment and income pattern of the participants who had never been in the fishing, who used to fish but had stopped fishing during the project period and the last category of participants who are continuing to fish for their livelihood.

Out of 300 samples, 47.6% had never been in fishing, 34.6% used to fish early but now have stopped fishing and the remaining 17.6% are continuing fishing.

Over the last few years, there had been changes in terms of occupation and income source for all three categories of participants. But the most prominent changes had been to those who had stopped fishing. Because 46.3% income of these people used to come from fishing which has now reduced to nil. Income ratios showed a significant positive change where MACH project provided training and AIG support. The detail table is presented in the annex A-16.

The study had used a 1-10 [9]point ladder scale to assess the change in their family income. Interestingly, the group who stopped fishing rated highest change – average 2.1 to 5.3 (162%) for MACH training and AIG interventions. However, the increase was found least for never fished category of respondents. Paired T-test performed for two sets of mean and p value is found close to 0, which confirmed that there has been a significant change of family income due to MACH intervention.

**Table –22: Change in family income by fishing categories of respondents**

| Particular | Never Fished n-142 | | | Stopped Fishing n=104 | | | Continued Fishing [10] N= 53 | | |
|---|---|---|---|---|---|---|---|---|---|
| Mean income score | Before MACH | Now | Change % | Before MACH | Now | Change % | Before MACH | Now | Change % |
| | 2.8 | 5.5 | 96 | 2.1 | 5.5 | 162 | 2.3 | 5.3 | 130 |

This does not necessarily reduce their absolute income. In deed, income of the people in general has actually increased during the period. There had been significant change and diversification of income source happened for these category (stopped fishing) of people. Even if they have stopped fishing but they are continue to do with fish business like fish culture and fish trade. Other important source of income diversification came from poultry, cow rearing, and small businesses. One striking aspects of occupational changes had been that the income source from selling day labour reduced significantly for all the participants. More and more people are into self-employment and productive functions

The study looked change in fishing profession from various angle. It has been found that 60% of the respondent left fishing – those previously used to fish. The ration is highest in the KM site (67%) followed by 65% in the TB site and 45% in the HH site. Gender-wise more female have left fishing (67%) than male (57%). Therefore, one can conclude that MACH had better impact on female than male as fas as fishing profession is concerned. The data tables is presented in the annex A-19 & A-20.

# 7 Family income, fishing dependency and life skills

As mentioned earlier, the study had used a 1-10 point ladder scale to assess the family income, income dependence on fishing and other aquatic resources, and the life skill for livelihood.

The study revealed that the average family income index in 1-10 point scale were 2.5 before the project commenced. This index had increased to 5.5 during the study period. The income increased has been quite steady in all the three sites with very little variations. However, relative increase of income had been more at the KM site. As far as the dependency on fishing for income is

[9] 1=not at all, no income and 10=highest income

[10] Only respondent started fishing between 1998 and now

concerned, this had decreased quite substantially at all the three sites particularly at the KM site. Similarly dependency of other aquatic resources for family income has almost diminished during the project period.

During the project period, there had been a substantive increase in the life skills of the project participants. The life skill index had increased from 1.8 to 5.5 since the project begun. The statistical significant text suggests that the improved in life skill and knowledge had contributed to enhanced income as well as diversification of income sources.

**Table –23: Change expressed in mean score– before MACH and now by site**

| Issues/Particular | HH (n=100) | | TB (n=100) | | KM (n=100) | | Overall (n=300) | |
|---|---|---|---|---|---|---|---|---|
| | Before | Now | Before | Now | Before | Now | Before | Now |
| Family Income | 2.5 | 5.3 | 2.9 | 5.5 | 2.2 | 5.6 | 2.5 | 5.5 |
| Dependency on Fishing | 2.7 | 1.6 | 2.2 | 1.3 | 3.5 | 1.7 | 2.8 | 1.5 |
| Dependency on other aquatic/WILD resources | 1.6 | 1.2 | 1.8 | 1.1 | 2.0 | 1.0 | 1.8 | 1.1 |
| Change in skill and knowledge for good living | 2.0 | 5.5 | 2.0 | 5.5 | 1.6 | 5.3 | 1.8 | 5.5 |

Paired t-test for each of the item has been carried-out. P value was found 0 in all cases, hence significant difference found between two sets of mean. Therefore, a significant impact noticed in family income, dependency on fishing and other aquatic resources and life skill of the respondents.

Gender segregated data suggests that both female and male had enhanced their enhanced their income level and livelihood skill over the years that thereby had reduced their dependence of fishing and aquatic resources for living. However, the extent of improvement had been little bit higher on the male side. The gender-segregated table is presented in the Annex A-17.

The study also looked the changes according to fishing categories of respondents. It revealed that there had been a gradual decrease of dependency on fishing and aquatic resources. People who are continuing fishing have some dependency on fishing and

aquaculture resources. On the other hand all types of participants had learned new knowledge and gained new skills their livelihood. People who never fished had leant more skills than others.

**Table –24: Change expressed in mean score– before MACH and now by fishing category**

| Particulars | Never Fished | | Stopped Fishing | | Continued Fishing | |
|---|---|---|---|---|---|---|
| | Before | Now | Before | Now | Before | Now |
| Income dependence on fishing | 1.2 | 1.2 | 4.1 | 1.3 | 4.4 | 2.7 |
| Income dependence on Aquatic resource | 1.4 | 1.1 | 2.3 | 1.0 | 2.0 | 1.2 |
| Life skill score | 2.2 | 5.8 | 1.4 | 5.3 | 1.8 | 4.9 |

### 7.1 Status of the poorest and least dependent participants

The study made an attempt to look the people with highest vulnerability in terms of income, fishing dependency and life skills. The study revealed that before the project, 11.3% of the study participants fall in the least income category [11]– i.e highest level of income vulnerability. This ratio had come down to only 1%. Similarly only 44.6% participants had least dependency on fishing, which had increased to 76.3%; 61% had no dependency on aquatic resources, which also had increased to 95% during the study.

As far as the life skill is concerned, 45.3% participants had hardly had any skills for livelihood. The ratio had come down to only 1% among the study participants. Therefore, the highest level of income and life skill vulnerability had diminished quite substantially during the project period. Similarly, more people had hardly any dependence on fishing and aquatic resources for their livelihood.

**Table – 25: Proportion of respondents were not/ least involved or – before MACH and now by site**

| Issues/Particular | HH | | TB | | KM | | Overall | |
|---|---|---|---|---|---|---|---|---|
| | Before | Now | Before | Now | Before | Now | Before | Now |
| Proportion/number of poorest people | 12 | 1 | 6 | 1 | 16 | 1 | 34 (11.3%) | 3 (1%) |
| Least Dependency on Fishing | 53 | 72 | 57 | 85 | 24 | 72 | 134 (44.6%) | 229 (76.3%) |
| Least Dependency on other aquatic/WILD resources | 74 | 91 | 64 | 95 | 45 | 99 | 183 (61%) | 285 (95%) |
| Change in skill and knowledge for good living | 45 | | 39 | | 52 | 3 | 136 (45.3%) | 3 (1%) |

Gender segregated data suggests that relative gain among the male in relatively high than the female for income and skill development. On the other hand, more female had reduced their dependency on fishing and aquatic resources than male. Gender desegregated table is presented in the annex A-18.

[11] =not at all, no income (least income) and 10=highest income

# 8 Retention of training knowledge

MACH project had provided a range of AIG and Non AIG training to the participants at various time of the project. The training impact study also tried to assess the current level of retention of training knowledge among the participants. The study suggests that only few people either have very high or very low retention of training knowledge. Vast majority have average to high level of training retention. In quantitative term, 54% respondent said they had high retention of training issue they had been taught during the training period while 37.7 % confessed that they had average level of retention of training subjects. Retention of training subject is comparatively better among the people at KM site.

Generally retention level among male and female seemed not to be very different. However, retention level was slightly better among the male.

**Table –26 Retention of training knowledge by site and gender**

| | Very Little | | Average | | High | | Very High | | Total ????? | |
|---|---|---|---|---|---|---|---|---|---|---|
| Site | No. | % | No. | % | No. | % | No. | % | No. | % |
| HH | 8 | 8.0 | 36 | 36.0 | 50 | 50.0 | 6 | 6.0 | 100 | 100 |
| TB | | | 40 | 40.0 | 52 | 52.0 | 8 | 6.0 | 100 | 100 |
| KM | 1 | 1.0 | 37 | 37.0 | 60 | 60.0 | 2 | 2.0 | 100 | 100 |
| Total | 9 | 3.0 | 113 | 37.7 | 162 | 54.0 | 16 | 5.3 | 100 | 100 |
| Gender | | | | | | | | | | |
| Male | 6 | 3.2 | 68 | 36.4 | 102 | 54.5 | 11 | 5.9 | 187 | 100 |
| Female | 3 | 2.7 | 45 | 39.8 | 60 | 53.1 | 5 | 4.4 | 113 | 100 |
| Total | 9 | 3.0 | 113 | 37.7 | 162 | 54.0 | 16 | 5.3 | 300 | 100 |

The study found that there was a correlation exists between the extent of training retention and the degree of education though not very prominent. While training retention among the illiterates were 2.6 in a 0-4 point scale, it was 3.0 for the people with higher secondary level of education. Reference table is presented in the annex A-21.

## 8.1 Replication and dissemination of training knowledge

The project expected that the trainee would disseminate the training knowledge to their family members, neighbours and friends. The study had tried to look at the extent of dissemination made by the trainees. It was found that 63.7% participants had disseminated training knowledge either to family members or outside family members or both. Of them 88% had disseminated to the family members and on a average each trainees had transferred the training know-how to 1.5 members within the family. On the other hand, dissemination rate to outside family was relatively lower – 60.5% but those who did it quite extensively – more than 4 person.

As far as the educational background was concerned, the study revealed that people with little and higher education disseminated relatively less number of people than people with primary and secondary level of education. Interestingly people with higher level of education were less prone to dissemination; rather they tend to retain the training learning within themselves.

**Table 27: Transfer of training knowledge (in percent) by education status**

| Education level | Disseminated training knowledge | Not Disseminated | Transferred within the family and to av. no. of persons | | Transferred outside the family and to av. no. of persons | | Rate of practical Application (Within the family) | Rate of practical Application (Outside the family) |
|---|---|---|---|---|---|---|---|---|
| | | | % | Av. persons | % | Av. persons | | |
| Illiterate/ Can sign | 68.8 | 31.3 | 93.2 | 1.5 | 59.1 | 3.1 | 86.6 | 94.2 |
| Primary | 67.6 | 32.4 | 85.4 | 1.5 | 70.2 | 5.6 | 85.4 | 93.9 |
| Secondary | 55.7 | 44.3 | 81.5 | 1.5 | 53.7 | 4.5 | 77.3 | 93.3 |
| Higher secondary | 25.0 | 75.0 | 100.0 | 1.0 | 100.0 | 1.0 | 100.0 | 100.0 |
| Overall | 63.7 | 36.3 | 88.0 | 1.5 | 60.5 | 4.2 | 83.9 | 94.0 |

## 8.2 Key learning from the AIG training

MACH project had delivered a range on skill development training on various trades and occupations. This includes both on farm and off farm activities. The participants were asked what skill they had developed through the MACH training program. The participants mentioned specific training skills that they developed through the skill development training. These included management and implementation of specific AIG activities like cow fattening, vegetable gardening etc. Most of the participants described in some details the skills they had learnt from training. For example, participants attended tailoring and embroidery told that they had learned how to swing shirt, pant, kamiz, How to measure cloth, the basic knowledge of swing machine parts etc from the training. Likewise all other participants had learned the fundamentals of the trade in some detail from the training. A detail table on this in the annex A-22.

## 8.3 Application of training learning

AIG training had instAIGted many participants to establish income generating activities based on the training skills. Many of them did not have such activities before. Some traditional activities had turned into business opportunities as a result of training. For example, cow rearing had been a traditional practices for rural people. But many people had taken cow rearing and cow fattening as an alternative income generating source. Like wise poultry, vegetable cultivation had taken new turn as income generating activities. The major change had been the scale and profit orientation.

These activities are now being implemented with a business perspective. There were also some new AIGs such as tailoring, vocational trade etc which were not before among the participants.

### 8.4 Changes in the livelihood and lifestyle

The training impact study tried to look at the changes in livelihood resulted by the skill development training. The participants responded positively saying that skill development training had made a number of positive changes in their livelihood and development. A detail site and gender-wise matrix is presented in the annex A-23. However, following had been the most important changes that the training had affected in them.

- Increased level of income
- New knowledge, experience, skill and awareness
- Improved level of food security; three meals a day
- Improved status, mobility and interaction within the society in particular to the women
- Alternative income opportunity and livelihood options
- Standard of living improved or upgraded
- Enhanced awareness and ability to send children to school
- Both husband and wife are contributing to family income
- Acquire new assets like land, pond, building houses etc.

### 8.5 Participants perspective for increasing training impact

The training impact study tried to bring participants perspective for future development of training process and impacts. This was asked through survey and FGDs. The respondents could not provide detail suggestions. However, the highlights of the responses is presented below:

- Extend training days
- Loan and training should be coherent
- Area wise training opportunity established / created
- Increase / arrange training allowance
- Increase size of loan amount
- Include recreation during training
- Arrange training on new areas / subject
- Existing training process is just fine with us
- Diversity training process
- Loan and training should be coherent
- Existing training process is just fine with us

**New skills development and AIG options for the participants**

- Polli Mobile and mobile phone servicing
- Vaccination for poultry
- Sanitary latrine making

# SECTION IV: CONCLUSIONS AND ISSUES

The training impact assessment generally shows progress of knowledge and skills among the participants. In other words, MACH objective to reduce dependency on fishing and other aquatic resources had been achieved to a good degree. The training had positively contributed towards diversification of incomes sources as well as enhancement of income. Over the last few years more and more people had been engaged on off farm activities had yielded more income and thus ensuring improved livelihood security of the people in the wetland.

Skill development training had been greatly supplemented by the provision of credit though effective utilization of credit had not been achieved fully. Still a part of the credit fund had been diverted to other purpose including consumptions. The demand for credit among the project participants are there and actually it is on the raise. People are expecting higher volume of credit. However, loan-servicing capability still remains an issue particularly for higher volume of loan with existing level of competencies.

MACH project had successfully set off a range of AIG for the project participants. A large number of AIG had been based on productive functions, which requires a degree of technical skills such as cow fattening, vegetable gardening etc. These skills have been successfully imparted through the AIG trainings. Besides trading related AIGs like small businesses, fish trading requires less technical skills but more business skills. Generally business skill development training was limited in number and scope.

AIG with high degree of technical skill requirement had actually done better in terms of income, return on loan employed and employment. This provides a genuine argument that the participants had actually put the training skills in practice.

MACH project also conducted series of non AIG training for human development the project participants. These had made good impact in terms of gender relation, leadership development and group cohesiveness. People are now more increasingly motivated to send their children to schools. Increased level of mobility was also noticed among the project participants particularly among the females.

MACH training had generally benefited both male and female in terms of income increase, livelihood security, and skill development. Having said that, male participants had been relatively more benefited than the female.

Skill development training had greatly contributed to scale up otherwise traditional practices like cow rearing, poultry rearing, and vegetable culture to a business level. However, most of the participants still depend on multiple sources for livelihood. That is to say, present scale of business operation does not provide full employment for the project participants. In order to do that, the scale of operation needs to be further stretched. The issue remains, do the present technical and business skill are feasible and economically viable for scale up. General perception had been that the existing level of skills is not adequate for the required scale of operation for full employment.

# ToR for (a) second assessment of public awareness about wetland resources and bio-diversity conservation, and (b) evaluation of credit and income generation training programs, MACH project

## 1. Background

The floodplains for Bangladesh form one of the world's most important wetlands – home of hundreds of species of fishes, plants and wildlife, and are a critical habitat for thousand of migrating birds. Due to overuse of natural resources, the catch of fish from floodplains, as well as the overall plant and animal bio-diversity within these wetlands, has continued to decline alarmingly over the years. Recognizing the need for sustainable approaches to floodplain and wetland resource conservation and management, the Government of Bangladesh and United States Agency for International Development (USAID) jointly developed the project entitled "Management of Aquatic Eco-system through Community Husbandry" (MACH). The project is being implemented since September 1998 by Winrock International and three national partners: the Bangladesh Centre for Advanced Studies (BCAS), Center for Natural Resource Studies (CNRS) and Caritas Bangladesh.

The MACH project is being implemented in three sites: Hail Haor in Moulovibazar district, Turug Bangshi in Gazipur district and Kangsha Malijhee in Sherpur district. It mainly aims to demonstrate to communities, local government and policy makers the viability of a community approach to natural resource management and habitat conservation over an entire wetland ecosystem. The 'communities' include all people in that area especially the poor, who depend either economically or nutritionally on the floodplain and/or wetland resources. The inherent aims are the conservation and proper management of wetlands and their resources to ensure sustainable wetland ecosystem. The MACH project provides interventions through a multi-disciplinary, multi-sectoral and participatory process of planning, implementation and monitoring for sustainable wetland resource management. MACH project also included supplementary income generation activities for enhancing and diversifying the incomes of poor people who depended on fishing and other wetland resource use.

In the three project areas, MACH has taken several initiatives to enhance the knowledge and awareness of the communities regarding the importance of wetland resources, their services, and different approaches and tools to conserve and restore wetland resources. The project also involved the community and local government through outreach and public education efforts, and raised their voices regarding wetland resources management and bio-diversity conservation. MACH project awareness activities have included courtyard meetings, tea stall sessions, workshops, drama and observance of important days; these stress the importance of management and conservation of wetland resources and eco-systems.

In this context, the project wishes to undertake two linked studies.

(A) On awareness:

1. assess the awareness of local people - especially participants of Resource Users Groups (RUGs), Resource Management Groups (RMOs) and non-participants - regarding the key issues and messages in wetland resource management in the three sites of MACH project;
2. compare these findings with an impact survey conducted in 2005 and baseline survey conducted in 2004 to assess and quantify any changes in awareness in terms of percentage increase; and
3. understand the reasons for patterns of awareness and the role and effectiveness of project communication media/channels.

(B) On the effectiveness of training of local people for income generation activities - participants of Resource Users Groups (RUGs) - to specifically determine:

1. Estimated number of RUG members who are currently using the knowledge provided through MACH training
2. Estimated number and proportion of RUG member households and individuals who increased their income in a way attributable to the training
3. Changes in household income by source for RUG members
4. Which training courses were effective (which topics did people use the information from)
5. Which topics were most and least effective in increasing people's incomes
6. What other factors influenced outcomes of training.

## 2. Study Objectives

*(A) Awareness study*

The broad objective of the study is to assess public awareness about wetland resources and bio-diversity conservation and management and to determine if this has been changed by MACH project interventions.

The specific objectives are:

- To assess the current awareness level of participants and non-participants on the key issues for wetland resources and understanding of MACH approaches and interventions.

- To compare the current awareness of these issues with the same indicators from the last awareness study held in July 2005.

- To understand causality for differences in and changes in awareness, and understand the effectiveness of different communication tools used by the project.

- To assess current awareness and understanding levels of local government officials and representatives.

*(B) Training evaluation*
The broad objective of the study is to assess the impact on MACH credit training program and alternative income generating training to assess the success of these activities.

The specific objectives are:

- To assess the effectiveness of training of RUG members for income generation activities to gain a better understanding of MACH impacts and appropriate IGA support.

- To compare the effectiveness by gender, age and ethnic group.

- To determine which topics yielded the greatest impacts.

- To understand the factors leading to successful and unsuccessful entrepreneur development and training impact.

## 3. Working areas for the assignment

The study will be conducted in three sites:

- Hail Haor in Moulvi Bazar district
- Turag Bangshai in Kalaikoir, Gazipur district
- Kangsha Malijhee in Sherpur district.

## 4. Methodology

The following methodologies to be followed:

- Review project reports to understand the Alternative Livelihoods component of the project
- Using statistically sound sampling techniques collect data on the trainings received and impact of the trainings including the effectiveness of the training, topic and the sector, and other potentially relevant factors, and on income in the last year and by recall changes in household economic and poverty status.
- Sample interview survey to quantify differences and changes in awareness and training impacts
- Focus Group Discussion to understand reasons for differences and assess communication tools
- In - depth Interview of 10 UP and Upazila officials (awareness only)
- Comparative analysis against 2005 impact survey (awareness)
- Analysis of effectiveness and impacts of training in different subjects

### *4.1 Sample and Data collection:*

The surveys will comprise three parts:

1) A sample interview survey designed to estimate changes in awareness of primary participants and non-participants. This should distinguish RMO members, RUG members, persons in both RMO and RUG, and non participants of comparable socio-economic status. Sample sizes should be sufficient to estimate awareness and changes in awareness for each of these stakeholder categories for each of the three sites. For RUG members should be sufficient to estimate training coverage and impacts for each of the three sites, for RUG only and RUG+RMO members, and for men and women. For RUG members and non-participants should also sufficiently large to enable comparison between men and women. The same questionnaire will be used as in 2005 for awareness assessment.

**Population and sample design for individual interview survey including key informants.**

| | Stakeholder type | Number of organizations etc | Population | Baseline sample | Sample size 2005 and 2006 |
|---|---|---|---|---|---|
| 1 | RMO EC member (may be in RUG or not) | 16 | 275 (assume 155 from RUGs) | 18 | 36 (4 per RMO) |
| 2 | RMO GB but not in RUG | 16 | 513 | 18 (some in RUG) | 36 (4 per RMO) |
| 3 | RMO GB and in RUG | 16 | 628 | 132 | 90 (10 per sample RMO) |
| 4 | RUG and not in RMO | 234 | 3065 | | 150 |
| 5 | General villagers | Na | Dk | 90 | 90 |
| 6 | Local government* | 10 | 23 | 10 | 10 |

Samples 1 through 4 to be simple random samples of organizations (RMO and RUG) and then simple random samples from their respective stratified membership lists.
Sample 5 to be a simple random sample from MACH project household lists for those villages covered by the sampled RMO/RUGs, sampling from households with not more than the target landholding size for RUG membership in that site.
Assumes 3 RMO covered per site, 9 in total.
30 of RUG and not RMO sample and 30 of general villager sample to be women.
* only UP chairmen, UFOs and UNOs considered as prime targets.
**Samples in shaded cells increased from 63 and 90 respectively to enlarge sample for training assessment study. Only these respondents would be covered by training assessment questionnaire.**

2) Focus Group Discussions (FGD) will be held in each site with members of 6 Resource User Groups and 2 Resource Management Organizations (RMOs), 24 FGD in total, the organizations/groups selected randomly, and the FGD participants comprising non-office bearers. Structured checklists will be used to (A) understand the effectiveness of different communication methods and the reasons for any changes in awareness, and for crosschecking with individual survey findings; and (B) assess the effectiveness of trainings and learning events provided to RUG and RMO members – understanding, uses, impacts on livelihoods and activities. The contractor will develop this checklist in consultation with the project team.

3) In depth / key informant interviews will be conducted with 10 local officials - Upazilla Nirbahi Officer (UNO), Upazilla Fisheries Officer (UFO) and UP Chairman, by using the same checklist as in the baseline. The contractor will be responsible for analysis and reporting on this data.

### *4.2 Data analysis*

The client will provide soft copies of the impact and baseline survey data and hard copy of the impact and baseline survey reports for reference and use of the contractor in completing this assignment, and for no other purpose, the ownership of that data and all data collected in this study rests with the client. The quantitative data will be analyzed using appropriate statistical analysis for self assessment scales and other data as recorded in the questionnaire, and including comparisons to test for differences with the baseline data concerning any changes in level of awareness of participants and non-participants. Where appropriate FGD data should be analyzed statistically. The qualitative information is to be presented in narrative and tabular forms as appropriate to understand the processes associated with awareness levels and their changes, and the assessment of communication media.

## 5. Period of the study

The period of the contract will be for 12 weeks, effective from 15 July 2006. The research firm/consultant will complete the assignment within the stipulated timeframe.

## 6. The qualification of the research firm/consultant

An experienced socio-economist having exposure to environment/eco-system will lead the team. The team must include an experienced evaluator of trainings having exposure to income generation projects or organizations. It is expected that the research firm/consultant will have strong background, relevant experience and analytical skills especially in socio-economic surveys (quantitative and qualitative). The research firm/consultant will provide a team of people of adequate experience and numbers to complete both individual interview and FGD components, data entry, cleaning, analysis and reporting within the stipulated time.

## 7. Approach to work

The Team Leader will review the available relevant documents and consult with the relevant staff of MACH project including its partners. All data collection tools are to be developed and finalized before conducting surveys through consultation with the communication specialist, SNRA and NC of MACH project, who form the task management team for this contract. The research firm/consultant will orient and train the field team to ensure standardized method and interviews and will ensure the presence of appropriate MACH staff to assist and clarify points during the orientation for the data collectors. The Team Leader will physically visit each of the project sites and generate necessary information. The field program is to be designed in consultation with MACH staff (both HQ and Site levels).

## 8. Reporting mechanism

The research firm/consultant will report verbally on a regular basis to the MACH task management team of the MACH HQ. Written reports will be submitted within the contract period. The report should be in both hard copy and electronic format compatible with Microsoft office software, and include the data sets. The contractor will be liable to make revisions agreed with MACH project and incorporate these into the final report.

## 9. Study Outputs

The outputs of the study will comprise:

- Draft report of the awareness assessment study
- Final report of the awareness assessment study

- Draft report of the training evaluation
- Final report of the training evaluation

Note:
**Methodology of the studies particularly sampling has been changed upon discussion with MACH management. They have been properly addressed in methodology section of the report.**

Annex-2

# Questionnaire for
## Evaluation of credit and income generation training programs-2006, MACH project

| HH | TB | KM |
|---|---|---|

**Sample No.** ☐☐☐☐

100. **General Information:**

100.1 Village: ..... 100.2 Union: ..... ☐☐ ☐☐

100.3 Upazila : ..... 100.4 District : ..... ☐☐ ☐☐

Name of Interviewer: ..... Date of Interview: .....

---

**200. Socio-economic Characteristics:**

200.1 Name of the Respondent: .....

200.2 Father/Husband's Name: .....

200.3 Sex: **Code :** 1=Male, 2=Female ☐

200.4 Profession (Main): ..... 200.5 Profession (Secondary): ..... ☐☐ ☐☐

***Codes:*** *1=Cultivation of own farm, 2=Share-cropper, 3=Fishing, 4=Agri labour, 5=Industrial labour, 6=Transport worker, 7=Construction worker, 8=Trader (small)/petty business, =businessman/big trader, 10=Government service, 11=Non-government service, 12=Self-service (own business employing at least 1 worker, not agricultural work), 13=Carpenter, 14=Cottage, Industry, 15=Housewife, 16=Student, 17=Unemployed, 18=Others (specify)*

200.5 Educational qualification (Last status): ☐☐

***Codes:*** -1-9 = Number of highest class completed, 10 = SSC passed, 11 = 11th class, 12 = HSC passed, 13 = 13th class, 14 = Graduate, 15 = 15th Class/ Honours, 16 = Post Graduate, 17 = Illiterate, 18 =Literate (Can sign only)

200.6 Name of your RUG: ..... ☐☐

200.7 If a member of an RMO: Name of RMO: ..... ☐☐

200.8 Your family member: Male ☐ Female ☐

200.9 Direct Earning Member: Male ☐ Female ☐ Minor/Dependent ☐

**300 Training**

300.1 Type of training received linked with your RUG/MACH? (Encircle the code against the course in the following matrix)

| Name of training course | Code | Which year? | Number of times/ duration | Who was trained from your household ? F=1 M=2 Both=3 | How useful /practical were these courses for you? (0-4) | Effectiveness against each received training course to you? (Benefit from the training course) (0-4) | Rank the courses received according to the relevance to your household (1-9) |
|---|---|---|---|---|---|---|---|
| **AIG related training** | | | | | | | |
| Cow rearing and fattening | 01 | | | | | | |
| Poultry/duck rearing | 02 | | | | | | |
| Fish culture/nursery | 03 | | | | | | |
| Plant nursery | 04 | | | | | | |
| Vegetable cultivation | 05 | | | | | | |
| Wheat cultivation | 06 | | | | | | |
| Vocational | 07 | | | | | | |
| Tailoring | 08 | | | | | | |
| Bamboo and cane | 09 | | | | | | |
| Other AIG training | 10 | | | | | | |
| **Non AIG training** | | | | | | | |
| Group management | 16 | | | | | | |
| Resource Awareness | 17 | | | | | | |
| Leadership Development | 18 | | | | | | |
| Gender and Advocacy | 19 | | | | | | |
| FRUG Management | 20 | | | | | | |
| Finance/credit mgt. | 21 | | | | | | |
| Other Non AIG training | 22 | | | | | | |

[Usefulness (practical) and Effectiveness (benefit) 0=Not at all, 1= Very Little, 2=Average, 3= High, 4= Very high]

300.2 Have you taken any loan from MACH project? ☐

Yes = 1, No = 0

If yes, how much did you borrow and for what uses by year?

| Year | Total amount borrowed | Main use | | | 2nd use | | | 3rd use | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | IGA type | Amount (Tk) | If trained Y=1 N=0 | IGA type or other | Amount (Tk) | If trained Y=1 N=0 | IGA type or other | Amount (Tk) | If trained Y=1 N=0 |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

300.3 For each of the IGAs supported through your RUG/Caritas:

| Type of IGA supported by training &/or loan | IGA code | How useful was loan in using training received? scale (0-4) | When started (Month and year) | When ended/if continuing (month and year) | After how many months started to make profit? | In the last 12 months (if not operated note given up), | |
|---|---|---|---|---|---|---|---|
| | | | | | | What was the Tk profit (after costs and paying off loan) to you? | How many days did you spend doing this work? |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

[Usefulness 0=Not at all, 1= Very Little, 2=Average, 3= High, 4= Very high]

300.4 What were the major sources of your family income just before the start of MACH (1998-99)

| Three major sources of family income (1998-99) | |
|---|---|
| September-December (Peak season of fishing) | April-June (Lean season of fishing) |
| | |
| | |
| | |

300.5 What are the major sources of your family income now? - say during last one year (2005-6)

| Three major sources of family income (2005-6) | |
|---|---|
| September-December (Peak season of fishing) | April-June (Lean season of fishing) |
| | |
| | |
| | |

300.6 Can you tell me your which months you have enough to eat and which you have to reduce meals (if any) over last one year?

a) (tick one row in each month)

| | SR | AS | JA | BA | CH | FA | MA | PU | AG | KR | AS | VH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 meal per day | | | | | | | | | | | | |
| 2 meals per day | | | | | | | | | | | | |
| 3 meals per day | | | | | | | | | | | | |

b)
Overall would you say that your household is:

Surplus=1,
Break-even=2,
Occasional deficit=3,
Usually deficit=4

300.7 Can you tell me about the sources of your annual household income (including income in kind such as the fish that you catch and eat). For each source that you have what proportion of income did it contribute – in terms of *ANA* - now (last year) and what proportion just before the start of MACH? (**16 anas** in percentage term 100% - totality)

| Sources | Source code | If this includes something the household had training or credit for Y=1, N=0 | Ana Proportion just before the start of MACH (1998-99) | Ana Proportion in last one year (2005-6) |
|---|---|---|---|---|
| Fishing | 01 | | | |
| Other aquatic resources (plants, snails, birds etc…) | 02 | | | |
| Laboring -agricultural | 03 | | | |
| Laboring non-agricultural (transport worker/Carpenter/Mason etc) | 04 | | | |
| Rickshaw/van driving/renting out | 05 | | | |
| Boatman/ boat renting out | 07 | | | |
| Fish trading | 08 | | | |
| Fish culture | 09 | | | |
| Handicrafts | 10 | | | |
| Small trade/shop | 11 | | | |
| Skilled trade (eg mechanic) | 12 | | | |
| Domestic servant | 13 | | | |
| Poultry | 14 | | | |
| Cattle/buffaloes | 15 | | | |
| Goats/sheep | 16 | | | |
| Vegetable growing | 17 | | | |
| Tree nursery | 18 | | | |
| Cultivating own or sharecropped in land | 19 | | | |
| Renting out animal draft power | 20 | | | |
| Renting out mechanical power | 21 | | | |
| Renting out/ sharecropping out own land | 22 | | | |
| Business (big) | 23 | | | |
| Service salary | 24 | | | |
| From abroad (Relatives sending money) | 25 | | | |
| Selling of trees/bamboos/firewood | 26 | | | |
| Selling of non traditional agri product (Fruit, Spices/Mushroom etc) | 27 | | | |
| Brokerage | 28 | | | |
| Renting out house (House rent) | 29 | | | |
| Other (mention) | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| Total | | | **16 anas** | **16 anas** |

400 We would like to know your opinion about changes affecting your household since 1998

400.1 How would you rate your household income this last year, and in 1998:
Rate in the following ladder scale (encircle):

1 = lowest household income you can imagine
10 = best possible household income you can imagine

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Just before the start of MACH | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Now (in last one year) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

400.2 How would you rate your household's dependence on fishing this last year, and in 1998:
Rate in the following ladder scale - encircle:

1 = do not fish
10 = depend entirely on fishing for our household welfare

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Just before the start of MACH | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Now (in last one year) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

400.3 How would you rate your household's dependence on other wild aquatic resources this last year, and in 1998. Rate in the following ladder scale (encircle):

1 = do not depend on them at all
10 = depend entirely on them for our household welfare

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Just before the start of MACH | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Now (in last one year) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

400.4 How would you rate your household skills and knowledge for making a good living this last year, and in 1998. Rate in the following ladder scale (encircle):

1 = lowest level of knowledge and skills you can imagine
10 = best possible level of knowledge and skills you can imagine

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Just before the start of MACH | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Now (in last one year) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

500 Training assessment

500.1 What did you learn from the training courses that you have received?
[Do not prompt initially, but ask for explanations / details as needed, and record below]

a) .....

b) .....

c) .....

d) .....

e) .....

500.2 Based on replies recorded above score the retention level of training knowledge of the respondent in the scale of 0 to 4 (0 = Not at all, 1 = Very Little, 2 = Average, 3 = High, 4= Very High):

500.3 Did you transfer your skill and learning to others? Yes = 1, No = 0

Within family? Yes = 1, No = 0; if yes to how many people? ☐

Did any of them apply it practically? Yes = 1, No = 0

Outside family? Yes = 1, No = 0 if yes to how many people? ☐

Did any of them apply it practically? Yes = 1, No = 0

500.4 Did you do anything new because of these training(s) you received?
Yes = 1, No = 0; if yes specify those in short?

_____

_____

_____

500.5 Do you think these training have brought any changes in your livelihood?
Yes = 1, No = 0; if yes specify those changes?

_____

_____

_____

600 Recommendations

600.1 Do you suggest any change in the training approaches and contents if MACH/or your FRUG repeats those courses for other RUG members?

_____

_____

Annex-3

**Credit and AIG training evaluation, MACH Project-2006**
**FGD Facilitation Guide for Facilitator/Moderator**

## Introduction

Eighteen FGDs will be conducted with the RUG members in three sites. Participants will be selected randomly from those who have received at least one AIG training. One third of them will be female and the rest will be male. That is two female and 4 male FGDs will be conducted in each site.

**Time: One and half hours**

- Materials: Note book, pen and checklist
- Group Size: 8 to 10 RUG members who received at least one IG training

## Implementation process

### *Preparation*

- A team of two person trained on FGD will conduct a FGD. One of the team members will facilitate the session while the other person will take note and work as scribe.
- Select time and place beforehand and invite the participate to attend and participate full time accordingly – MACH (Caritas) staff are supposed to mobilize RUG members for FGDs
- Make sure that the required materials and checklist are available in the session
- Make sure that the place is convenient for the participants as well as for the session.
- Make sure that no other people stay during the session.
- The participants will be sitting in U shape.
- The place needs to be quite, well lit and well ventilated.

The role of facilitator/moderator

- The facilitator will initiate the session with self-introduction. They may tell the participants that CBSG was involved in such exercise in 2005 also. S/he will also encourage the participants to give their introduction in such that scribe can fill the profile format.
- May use quiz and/or puzzle to create a congenial environment
- Give a clear idea about the time needed for this exercise
- Request the participants to sit in U shape.
- Initiate discussion based on the pre-developed discussion guide. Use the guide flexibly and when necessary raise issues that are relevant to make the discussion more fruitful.
- Ask questions in simple and easy to understand language
- Ask the question to the group, not a person.

- Listen to them carefully and try to understand the meaning. Make sure that you understand them accurately through paraphrasing their response.
- Ask questions such that the participants can think deeply and valuable information come from them
- Assist the note keeper to take note. Make sure that the discussion and note taking remains coordinated.
- Take consent from the participants for note taking and photograph
- Do not allow too many observer

Following are some useful hints for a good FDG moderator

| Things to Do | Things not to do |
|---|---|
| ▪ Show flexibility<br>▪ Sensitive to the participants and the context<br>▪ Use humor (not too much)<br>▪ Coordinate views and opinion of each participants<br>▪ Encourage the participants to participate in the discussion<br>▪ Encourage informality and friendly discussion | ▪ Do not guide with time bar<br>▪ Do not loose control over discussion<br>▪ Provide value judgment on discussion points<br>▪ Provide opinion<br>▪ Turn the discussion into a question-answer session |

**Role of the Note-keeper**

- Take a separate seat behind the participants
- Keep the note sheets and pen
- Give full attention to the discussion, understand the discussion issues properly and take note accurately
- Take note of the relevant discussion in pre-designed format and the other discussion points in note pad in the form of case study
- Keep contact with the facilitator and look at his/her signal and take note accordingly
- At the end of the session, complete the session note in consultation with the facilitator

Potential problem in FGD session

- Shy RUG members may remain silent in the discussion
- Some RUG member may take control of the discussion and influence others
- Discussion can be diverted to un related issues
- Ambiguous statement might come from the participants
- Some discussion might lead to disagreement

The facilitator will need to take preparation and readiness to deal with these issues properly.

# MACH AIG Training Evaluation – 2006

# FGD Issues for the Moderator/Facilitators

## 1 Introductory Session (10 Minutes)

- Greets everybody, How are you?
- Explain very clearly about the purpose of the session with them and gain their confidence
- Introduce yourself and team: Get some basic information (age, profession, name of training received etc) from their introductions as per profile format.

## 2 Issue: Training content and retention of knowledge (10 minutes)

- How you were selected for the training
- What did you learn (Course-wise)
- Do you think that the training content was appropriate/enough for your particular course
- Did you feel comfortable with the process/approach of training

## 3 Issue: Training relevance (15 minutes)

- Do you know the objectives of MACH
- Can you relate the training with any of the MACH objectives
- What is their opinion about the usefulness of the training courses in the local socio-economic context
- Usefulness- why and why not
- Did you get credit linked with training, and any follow up advice
- Purpose of credit and training received
- Did any of you try AIGAs that failed or you could not continue after training, what happened/why could you not continue?
- How applicable/relevant were the AIG training for this area?
- Course(s) – which topics/AIGAs do you think most appropriate for people like yourselves in this area and why

## 4 Issue: Effect and Impact of training (15 minutes)

- Did any changes happen in your livelihood/life style (economically and socially) due to training, what/details/examples
- Any differences in sources of income in last one year compared to 1998-99
- Do they think MACH training program contributed to any change in source and level of income? If so, how; and cite specific example
- Have these changes had any effect on your use of wetland and fishery resources – what/details/examples

## 5 Future recommendations (aspirations) 10 minutes:

- What type of skill development or income generation training/initiative you think is needed in future (except the current ones)
- After MACH ends how do you expect to get such training in future?
- Any other suggestions

Thanks them and say goodbye.

Annex-4

# MACH – Evaluation of AIG Training impact - 2006
# Semi Structured Interview-Guide - CARITAS staff

## Introduction:

As a part of training evaluation process, CBSG will conduct semi-structured but focused interview with relevant staff of MACH (Caritas) at field and HQ level. At least 2 from each site will be interviewed and altogether 10 staff.

Issues to be discussed during semi-structured interview with CARITAS field and HQ training staff. The interviewer must keep the name of AIG training courses in mind while interviewing the Caritas staff.

- Why you have selected these training courses? – (Rationale behind selection of these types of AIG courses for the RUG members).
- Did you carried out need assessment or similar exercise before selecting courses or during development of training content or module?
- Potentials and hindrances of application of training knowledge by the RUG members in your site and as a whole in the MACH project
- What is your perception about human capacity of RUG member to implement the training knowledge – specific to gender – age and ethnicity?
- What external factors responsible for success or failure to impact training in the lives of poor people of this site (environment/nature – market opportunity – communication etc)
- What individual factors responsible for success or failure to impact training (solvency, education etc)
- What are your (CARITAS and MACH project) strengths as well as weaknesses in delivering these training?
- Issues of coordination and cooperation between MACH implementing partners to implement training program
- Do you have any follow-up mechanism – to see impact or implementation of training knowledge by the participants? If so, what are they and how do you do the follow-ups?
- If you are to design these training courses yet another time, what changes would you suggest? (Identifying trainees, module, approach/methodology etc.)

**Name of the courses under the study consideration:**

- Cow rearing and fattening
- Poultry/duck rearing
- Fish culture/nursery
- Plant nursery
- Vegetable cultivation
- Wheat cultivation
- Vocational
- Tailoring
- Bamboo and cane

## Semi-structured Interview of Key Informants
## Highlights of the Findings

The rational of selecting the IGA trainings, which are conducted by CARITAS for the MACH project is to reduce dependency on the wetland of the people who are mostly depend on wetland resources for their survival. At the beginning of the project in this area, most of the poor people of the community are involved in fishing every day for their survival and that results the wetland almost resource less and damaged from the nature. In order to keep the wetland in nature and resourceful, there is a major need to involve those people in an alternative trade.

The need and demand of the mentioned IGA trainings were mostly drown from the discussion of RUG meetings, Community Meetings, Various awareness meetings and as well as from the observation of the field level workers.

The major basis for selecting these IGA trainings were:

- Traditional trade
- Easy understandable method of the business
- Man and women friendly trade
- Minimum cot involvement
- Available market demand
- Easy to make profit
- Scope to shift permanently on these business

There were no formal need assessments exercise had been carried for selecting these courses. Selections of these IGA training were mostly based on the demand of the beneficiaries. The demands were drawn from the discussion of RUG meetings, Community meetings, various awareness meetings, observation from the field level workers and the previous experience of CARITAS.

The training courses are not only open for the group members of MACH but also for the poor community people. These method and techniques have created a congenial environment for the participants to perceive the knowledge for applications. Most of the participants who have received the IGA training are using their training knowledge in their respective trade. Their daily income have already been increased and this works as a reference of success the applications of training knowledge.

On other way, decreasing resources of wetland and poverty pushes the poor community people to find out alternative income sources to meet their fundamental needs. As the content of these training are on traditional trade based on the available market demand, and as well as easy to them understand and apply, they take these training not only to gather knowledge but also to apply in practice and make profit in order to meet their fundamental needs.

There are very few who did not apply the knowledge that they acquired from training courses. This happens almost among the aged people who are a bit rigid to shift their present profession that they inherited from their past generation, and a very few cases

with the women whose in laws are highly non-cooperative. However, the main hindrances are found in order to applications the training knowledge are as follows;

- Less interest on alternative trade (Specially male fisherman)
- Laziness
- In-laws non cooperation (specially for women)
- Lack of proper marketing

Women were mostly found enthusiastic and sincere to implement the training knowledge. Males are found very success in poultry business and driving the traditional vehicle. Female members are more organized than the male. Youths are mostly interested and founds success in Vocational trade

Good communication infrastructure, favorable environment, Community friendly trade, available market demand, easy implementable approach, Success stories of others etc. were found as major external factors for success to impact the training in the lives of poor in the project area.

Unpredictable diseases (for poultry), natural disaster, Non-cooperation of in-laws (some times) etc. were found as external factor of hindrances on the lives of poor in the project area.

Need based Credit facilities from the project, Easy profitable trade, Facility of adult literacy, Cooperation of the family members etc. are found as individual factors for success to impact training in the lives of the poor in the project area.

Mishandling of credit facilities (Very few), Non-cooperation of In-laws (Some times) etc. are found as external factor for failure to impact the training I the lives of poor in the project area.

CARITAS have created a well experienced and skilled trainers composed training cell at the project area. In addition CARITAS hired external resource person, mainly on subject matters, from upazila level officials. Their strengths are:

- Need based and customizes curriculum/Manual
- Community friendly training communication approaches
- Experienced and skilled consultant trainers pool of CARITAS
- Clear understanding about participants perception/conception and as well as their behavior pattern
- Batter coordination and cooperation among the implementing partners (MACH)
- Allocations of adequate budgets for the training program

Despite the strengths, some weaknesses are also found in order to delivery the trainings. Limited numbers of technical resource person were unable to meet the training schedule. A quite regular turn over of the skilled trainers resulting in affecting the proper delivery of trainings. Inadequate Training facilities and limited numbers of training equipment some times affecting to bring out the best out put from the trainees.

Issues regarding coordination and cooperation are found very professional and effective. The better coordination and cooperation among the implementing partners are the major strength to implement this project.

CASRITAS has set a very intensive follow up mechanism to monitor the participants' initiative after having these training. These are as follows:

- Regular discussion during group meeting
- IGA inspection and regular consultation
- Offer need based credit
- Monitor their implementation activity (Trade)
- Help in getting technological support
- Help in marketing
- Weaving interest on credit if any natural disaster occurred
- Weekly meeting etc.

Most of them have expressed their suggestion on the process and methodologies of the training conduction. Some curriculum needs to be upgraded incorporating the most current technologies on the given trade. However, followings are the suggestion, what the participants wished to change to design the same in future;

- Split long duration (3 month, 6 month) courses.
- Incorporate more participatory approach rather then lecture method
- Incorporate new and updated technology oriented session
- More Role play and field visit oriented session may be incorporated
- Highlight Participants role rather than facilitators role during the training session
- Incorporate more customized example

# Annex-6

## Annex to the report on Evaluation of credit and income generating training programs, MACH project

**Table-A1: Respondent's gender**

| Site | Female | % | Male | % | Total | % |
|---|---|---|---|---|---|---|
| HH | 39 | 39.0 | 61 | 61.0 | 100 | 33.3 |
| TB | 30 | 30.0 | 70 | 70.0 | 100 | 33.3 |
| KM | 44 | 44.0 | 56 | 56.0 | 100 | 33.3 |
| **Total** | 113 | 37.7 | 187 | 62.3 | 300 | 100 |

**Table-A2: Proportion of RUG members received at least one AIG Training**

| Particular | Site | | | | | | Overall | |
|---|---|---|---|---|---|---|---|---|
| | HH | | KM | | TB | | | |
| | No. | % | No. | % | No. | % | No. | % |
| Not received any AIG training | 15 | 29.4% | 10 | 19.6% | 8 | 15.7% | 33 | 21.6% |
| Received AIG training | 36 | 70.6% | 41 | 80.4% | 43 | 84.3% | 120 | 78.4% |
| Total | 51 | 100.0% | 51 | 100.0% | 51 | 100.0% | 153 | 100.0% |

**Table – A3: Usefulness and Effectiveness by course type and gender**

| Course type | Overall usefulness (Mean score) | Overall Effectiveness (Mean score) | Usefulness | | Effectiveness | |
|---|---|---|---|---|---|---|
| | | | Female (Mean score) | Male (Mean score) | Female (Mean score) | Male (Mean score) |
| **AIG related training** | | | | | | |
| Cow rearing and fattening | 2.7 | 2.5 | 2.7 | 2.7 | 2.6 | 2.4 |
| Poultry/duck rearing | 2.5 | 2.2 | 2.8 | 2.3 | 2.7 | 1.8 |
| Fish culture/nursery | 2.6 | 2.4 | 1.9 | 2.8 | 1.6 | 2.5 |
| Plant nursery | 2.3 | 2.1 | 2.3 | 2.3 | 2.3 | 2.1 |
| Vegetable cultivation | 2.6 | 2.3 | 2.5 | 2.7 | 2.2 | 2.3 |
| Wheat cultivation | 2.6 | 2.1 | 2.5 | 2.6 | 3.0 | 1.9 |
| Vocational | 2.0 | 2.0 | . | 2.0 | . | 2.0 |
| Tailoring | 2.6 | 2.6 | 2.6 | . | 2.6 | . |
| Bamboo and cane | 3.0 | 2.8 | 3.0 | 3.0 | 2.8 | 2.0 |
| Other AIG training | 2.3 | 2.0 | 2.3 | 2.2 | 1.9 | 2.1 |
| Sub-total | **2.6** | **2.3** | **2.6** | **2.5** | **2.4** | **2.2** |
| **Non AIG training** | | | | | | |
| Group management | 2.4 | 2.0 | 2.5 | 2.4 | 2.2 | 1.9 |
| Resource Awareness | 2.6 | 2.1 | 2.7 | 2.5 | 2.1 | 2.2 |
| Leadership Development | 2.3 | 2.0 | 2.5 | 2.2 | 2.2 | 1.8 |
| Gender and Advocacy | 2.6 | 2.2 | 2.8 | 2.4 | 2.6 | 1.9 |
| FRUG Management | 2.4 | 2.2 | 2.5 | 2.4 | 2.3 | 2.1 |
| Finance/credit mgt. | 2.5 | 2.0 | 2.5 | 2.5 | 2.3 | 1.8 |
| Other Non AIG training | 1.5 | 1.0 | . | 1.5 | . | 1.0 |
| Sub Total | **2.4** | **2.1** | **2.5** | **2.4** | **2.2** | **1.9** |

**Table A-4: Extent of usefulness by AIG course type and gender**

| Sl. | AIG training type | Female | | | | Male | | | | Overall | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | n | % Not useful | % Av. Useful | % High useful | n | % Not useful | % Av. Useful | % High useful | n | % Not useful | % Av. Useful | % High useful |
| 01 | Cow rearing and fattening | 31 | 3.2 | 32.3 | 64.5 | 47 | 6.4 | 31.9 | 61.7 | 78 | 5.1 | 32.1 | 62.8 |
| 02 | Poultry/duck rearing | 36 | 5.6 | 33.3 | 61.1 | 47 | 19.1 | 31.9 | 49.0 | 83 | 13.3 | 32.5 | 54.2 |
| 03 | Fish culture/nursery | 12 | 25.0 | 41.7 | 33.3 | 52 | 5.8 | 30.8 | 63.4 | 64 | 9.4 | 32.8 | 57.8 |
| 04 | Plant nursery | 4 | 25.0 | 25.0 | 50.0 | 26 | 23.1 | 34.6 | 42.3 | 30 | 23.3 | 33.3 | 43.3 |
| 05 | Vegetable cultivation | 39 | 5.1 | 53.8 | 41.0 | 58 | 1.7 | 44.8 | 53.5 | 97 | 3.1 | 48.5 | 48.5 |
| 06 | Wheat cultivation | 2 | | 50.0 | 50.0 | 8 | 12.5 | 37.5 | 50 | 10 | 10.0 | 40.0 | 50.0 |
| 07 | Vocational | | | | | 17 | 35.3 | 29.4 | 35.3 | 17 | 35.3 | 29.4 | 35.3 |
| 08 | Tailoring | 30 | 3.3 | 46.7 | 50.0 | | | | | 30 | 3.3 | 46.7 | 50.0 |
| 09 | Bamboo and cane | 12 | 8.3 | 16.7 | 75.0 | 1 | 100.0 | | | 13 | 7.7 | 15.4 | 76.9 |
| 10 | Other AIG training | 15 | 13.3 | 40.0 | 46.7 | 9 | 22.2 | 22.2 | 55.6 | 24 | 16.7 | 33.3 | 50.0 |
| | **Total** | 181 | 7.2 | 39.8 | 53.0 | 265 | 11.7 | 34.3 | 54.0 | 446 | 9.9 | 36.5 | 53.6 |

**Table A-5: Extent of usefulness by non-AIG course type and gender**

| Sl. | AIG training type | Female | | | | Male | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | n | % Not useful | % Av. Useful | % High useful | n | % Not useful | % Av. useful | % High useful |
| 1 | Group management | 51 | 7.8 | 41.2 | 51.0 | 84 | 4.8 | 50.0 | 45.2 |
| 2 | Resource Awareness | 19 | .0 | 52.6 | 47.4 | 36 | 2.8 | 47.2 | 50.0 |
| 3 | Leadership Development | 26 | 3.8 | 50.0 | 46.2 | 45 | 11.1 | 55.6 | 33.3 |
| 4 | Gender and Advocacy | 8 | .0 | 25.0 | 75.0 | 10 | .0 | 60.0 | 40.0 |
| 5 | FRUG Management | 10 | .0 | 50.0 | 50.0 | 14 | .0 | 64.3 | 35.7 |
| 6 | Finance/credit mgt. | 13 | .0 | 46.2 | 53.8 | 20 | 5.0 | 40.0 | 55.0 |
| 7 | Other Non AIG training | | .0 | .0 | .0 | 3 | 33.3 | .0 | 66.7 |
| | Total | 127 | 3.9 | 44.9 | 51.2 | 212 | 5.7 | 50.5 | 43.9 |

**Table A-6: Extent of usefulness by non-AIG course type and site**

| Sl. | AIG training courses - type | HH Site | | | | KM site | | | | TB Site | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | n | % Not useful | % Av. Useful | % High useful | n | % Not useful | % Av. Useful | % High useful | n | % Not useful | % Av. Useful | % High useful |
| 16 | Group management | 42 | 2.4 | 40.5 | 57.1 | 44 | 2.3 | 45.5 | 52.3 | 49 | 12.2 | 53.1 | 34.7 |
| 17 | Resource Awareness | 23 | .0 | 34.8 | 65.2 | 11 | 9.1 | 27.3 | 63.6 | 21 | .0 | 76.2 | 23.8 |
| 18 | Leadership Development | 27 | 11.1 | 40.7 | 57.1 | 22 | .0 | 45.5 | 54.5 | 22 | 13.6 | 77.3 | 9.1 |
| 19 | Gender and Advocacy | 7 | .0 | .0 | 100.0 | 10 | .0 | 70.0 | 30.0 | 1 | .0 | 100.0 | .0 |
| 20 | FRUG Management | 10 | .0 | 30.0 | 70.0 | 3 | .0 | 100.0 | .0 | 11 | .0 | 72.7 | 27.3 |
| 21 | Finance/credit mgt. | 11 | .0 | 9.1 | 90.9 | 9 | 11.1 | 44.4 | 44.4 | 13 | .0 | 69.2 | 30.8 |
| 22 | Other Non AIG training | 1 | .0 | .0 | 100.0 | | .0 | .0 | .0 | 2 | 50.0 | .0 | 50.0 |
| | **Total** | 121 | 3.3 | 33.1 | 63.6 | 99 | 3.0 | 47.5 | 49.5 | 119 | 8.4 | 64.7 | 26.9 |

**Table A-7: Respondents' perception on usefulness (mean score) by course type and their education level**

| | Illiterate/Can sign only | Primary level | Secondary level | Higher Secondary and above |
|---|---|---|---|---|
| **AIG related training** | | | | |
| Cow rearing and fattening | 2.8 | 2.5 | 2.9 | 3.0 |
| Poultry/duck rearing | 2.6 | 2.6 | 2.4 | . |
| Fish culture/nursery | 2.7 | 2.4 | 2.8 | . |
| Plant nursery | 2.3 | 2.4 | 2.0 | 4.0 |
| Vegetable cultivation | 2.7 | 2.4 | 2.6 | 2.0 |
| Wheat cultivation | 2.7 | 2.8 | 2.3 | . |
| Vocational | . | 2.0 | 2.0 | 2.0 |
| Tailoring | 3.0 | 2.5 | 2.6 | 3.0 |
| Bamboo and cane | 3.0 | . | . | . |
| Other AIG training | 2.6 | 1.6 | 2.5 | . |
| **Sub-total** | 2.7 | 2.4 | 2.5 | 2.8 |
| **Non AIG training** | | | | |
| Group management | 2.5 | 2.3 | 2.5 | 2.0 |
| Resource Awareness | 2.8 | 2.6 | 2.4 | 2.0 |
| Leadership Development | 2.5 | 2.1 | 2.4 | 2.0 |
| Gender and Advocacy | 2.8 | 3.0 | 2.3 | 2.0 |
| FRUG Management | 2.4 | 2.5 | 2.4 | 2.0 |
| Finance/credit mgt. | 2.6 | 2.5 | 2.3 | 3.0 |
| Other Non AIG training | . | 3.0 | .0 | . |
| **Sub Total** | 2.6 | 2.3 | 2.4 | 2.2 |

**Table A-8: Effectiveness of AIG training by course type and site (in percent)**

| Sl. | AIG training courses - type | HH Site | | | | KM site | | | | TB Site | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | n | % Not E'ves | % E'ves | % E'ves | n | % E'ves | % E'ves | % E'ves | n | % E'ves | % E'ves | % E'ves |
| 01 | Cow rearing and fattening | 36 | 13.9 | 27.8 | 58.3 | 23 | 4.3 | 56.5 | 39.1 | 19 | 26.3 | 31.6 | 42.1 |
| 02 | Poultry/duck rearing | 30 | 20.0 | 30.0 | 50.0 | 22 | | 59.1 | 40.9 | 31 | 45.2 | 25.8 | 29.0 |
| 03 | Fish culture/nursery | 26 | 34.6 | 15.4 | 50.0 | 25 | | 28.0 | 72.0 | 13 | 38.5 | 23.1 | 38.5 |
| 04 | Plant nursery | 12 | 50.0 | 8.3 | 41.7 | 6 | 16.7 | 33.3 | 50.0 | 12 | 25.0 | 25.0 | 50.0 |
| 05 | Vegetable cultivation | 22 | 9.1 | 54.5 | 36.4 | 37 | 10.8 | 54.1 | 35.1 | 38 | 15.8 | 55.3 | 28.9 |
| 06 | Wheat cultivation | 1 | 100.0 | 0.0 | 0.0 | 4 | 25.0 | 25.0 | 50.0 | 5 | 20.0 | 40.0 | 40.0 |
| 07 | Vocational | 8 | 50.0 | 25.0 | 25.0 | 2 | | | 100.0 | 7 | 42.9 | 14.3 | 42.9 |
| 08 | Tailoring | 7 | 0.0 | 28.6 | 71.4 | 14 | 14.3 | 50.0 | 35.7 | 9 | | 33.3 | 66.7 |
| 09 | Bamboo and cane | | 0.0 | 0.0 | 0.0 | 13 | 7.7 | 38.5 | 53.8 | | | | |
| 10 | Other AIG training | 17 | 35.3 | 29.4 | 35.3 | 2 | | 50.0 | 50.0 | 5 | 20.0 | 40.0 | 40.0 |
| | ***Total*** | 159 | 24.5 | 28.3 | 47.2 | 148 | 6.8 | 46.6 | 46.6 | 139 | 27.3 | 35.3 | 37.4 |

**Table A-9: Effectiveness of non-AIG training by course type and site (in percent)**

| Sl. | AIG training courses - type | HH Site | | | | KM site | | | | TB Site | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | n | % Not Practi | % Av. Practi | % High Practi | n | % Not Practi | % Av. Practi | % High Practi | n | % Not Practi | % Av. Practi l | % High Practi |
| 16 | Group management | 42 | 28.6 | 31.0 | 40.5 | 44 | 27.3 | 25.0 | 47.7 | 49 | 26.5 | 57.1 | 16.3 |
| 17 | Resource Awareness | 23 | 17.4 | 43.5 | 39.1 | 11 | 18.2 | 36.4 | 45.5 | 21 | 9.5 | 71.4 | 19.0 |
| 18 | Leadership Development | 27 | 29.6 | 33.3 | 37.0 | 22 | 18.2 | 31.8 | 50.0 | 22 | 40.9 | 54.5 | 4.5 |
| 19 | Gender and Advocacy | 7 | .0 | 28.6 | 71.4 | 10 | 30.0 | 50.0 | 20.0 | 1 | 100.0 | .0 | .0 |
| 20 | FRUG Management | 10 | 20.0 | 30.0 | 50.0 | 3 | .0 | 100.0 | .0 | 11 | 9.1 | 72.7 | 18.2 |
| 21 | Finance/credit mgt. | 11 | 36.4 | 9.1 | 54.5 | 9 | 33.3 | 44.4 | 22.2 | 13 | 15.4 | 61.5 | 23.1 |
| 22 | Other Non AIG training | 1 | .0 | 100.0 | .0 | | .0 | .0 | .0 | 2 | 50.0 | .0 | 50.0 |
| | ***Total*** | 121 | 24.8 | 32.2 | 43.0 | 99 | 24.2 | 34.3 | 41.4 | 119 | 24.4 | 59.7 | 16.0 |

**Table A-10: Respondents' perception on effectiveness (mean score) by course type and their education level**

| | Illiterate/Can sign only | Primary level | Secondary level | Higher Secondary and above |
|---|---|---|---|---|
| AIG related training | | | | |
| Cow rearing and fattening | 2.6 | 2.5 | 2.4 | 2.0 |
| Poultry/duck rearing | 2.1 | 2.4 | 2.1 | . |
| Fish culture/nursery | 2.4 | 2.1 | 2.5 | . |
| Plant nursery | 1.9 | 2.4 | 2.1 | 3.0 |
| Vegetable cultivation | 2.3 | 2.3 | 2.4 | 1.0 |
| Wheat cultivation | 2.0 | 2.3 | 2.0 | . |
| Vocational | . | 2.3 | 1.9 | 2.0 |
| Tailoring | 3.0 | 2.4 | 2.6 | 3.0 |
| Bamboo and cane | 2.8 | . | . | . |
| Other AIG training | 2.2 | 1.7 | 1.8 | . |
| **Sub-total** | 2.3 | 2.3 | 2.3 | 2.2 |

**Table A-10.1: Relevance of the training courses with respondents family context**

| | Priority ranks (no. of respondents) | | | | |
|---|---|---|---|---|---|
| | 1 | 2 | 3 | Total | % |
| **AIG related training** | | | | | |
| Cow rearing and fattening | 62 | 13 | 3 | 78 | 17.5 |
| Poultry/duck rearing | 62 | 13 | 7 | 82 | 18.4 |
| Fish culture/nursery | 52 | 7 | 5 | 64 | 14.4 |
| Plant nursery | 16 | 7 | 7 | 30 | 6.7 |
| Vegetable cultivation | 42 | 43 | 12 | 97 | 21.8 |
| Wheat cultivation | 1 | 7 | 2 | 10 | 2.2 |
| Vocational | 15 | 1 | 1 | 17 | 3.8 |
| Tailoring | 26 | 1 | 3 | 30 | 6.7 |
| Bamboo and cane | 12 | | 1 | 13 | 2.9 |
| Other AIG training | 7 | 10 | 7 | 24 | 5.4 |
| Sub-total | **295** | **102** | **48** | **445** | 100. |
| **Non AIG training** | | | | | |
| Group management | 2 | 48 | 85 | 135 | 39.8 |
| Resource Awareness | | 21 | 34 | 55 | 16.2 |
| Leadership Development | | 18 | 53 | 71 | 20.9 |
| Gender and Advocacy | | 4 | 14 | 18 | 5.3 |
| FRUG Management | | 3 | 21 | 24 | 7.1 |
| Finance/credit mgt. | | 14 | 19 | 33 | 9.7 |
| Other Non AIG training | | | 2 | 2 | 0.6 |
| Sub Total | **2** | **108** | **228** | **338** | 100.0 |

## Table-A11: Effectiveness of non AIG training courses and gender

| Sl. | AIG training type | Female | | | | Male | | | | Overall | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | n | % Not useful | % Av. Useful | % High useful | n | % Not useful | % Av. Useful | % High useful | n | % Not useful | % Av. Useful | % High useful |
| 16 | Group management | 51 | 23.5 | 31.4 | 45.1 | 84 | 29.8 | 42.9 | 27.4 | 135 | 27.4 | 38.5 | 34.1 |
| 17 | Resource Awareness | 19 | 21.1 | 47.4 | 31.6 | 36 | 11.1 | 55.6 | 33.3 | 55 | 14.5 | 52.7 | 32.7 |
| 18 | Leadership Development | 26 | 19.2 | 38.5 | 42.3 | 45 | 35.6 | 40.0 | 24.4 | 71 | 29.6 | 39.4 | 31.0 |
| 19 | Gender and Advocacy | 8 | .0 | 50.0 | 50.0 | 10 | 40.0 | 30.0 | 30.0 | 18 | 22.2 | 38.9 | 38.9 |
| 20 | FRUG Management | 10 | 10.0 | 60.0 | 30.0 | 14 | 14.3 | 57.1 | 28.6 | 24 | 12.5 | 58.3 | 29.2 |
| 21 | Finance/credit mgt. | 13 | 7.7 | 53.8 | 38.5 | 20 | 40.0 | 30.0 | 30.0 | 33 | 27.3 | 39.4 | 33.3 |
| 22 | Other Non AIG training | | .0 | .0 | .0 | 3 | 33.3 | 33.3 | 33.3 | 3 | 33.3 | 33.3 | 33.3 |
| | **Total** | 127 | 18.1 | 40.9 | 40.9 | 212 | 28.3 | 43.4 | 28.3 | 339 | 24.5 | 42.5 | 33.0 |

**Table A-12: Proportion of respondents received AIG training in the same IGA that they used a loan for - by IGA type and site**

| | IGA Type | HH Site | | | KM Site | | | TB Site | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | n | % recv. trn | % no. recvd. | n | % recv. trn | % no. recvd. | n | % recv. trn | % no. recvd. |
| 01 | Cow rearing and Fattening | 30 | 73.3 | 26.7 | 34 | 47.1 | 52.9% | 28 | 32.1 | 67.9 |
| 02 | Fish Culture/trading | 20 | 70.0 | 30.0 | 15 | 73.3 | 26.7% | 9 | 33.3 | 66.7 |
| 03 | Poultry | 7 | 100.0 | | 9 | 100.0 | | 11 | 63.6 | 36.4 |
| 04 | Goat Rearing | 2 | 50.0 | 50.0 | | | | | | |
| 05 | Small Scale Industry | 5 | | 100.0 | 3 | 100.0 | | 4 | 25.0 | 75.0 |
| 06 | Vegetable Gardening/Business | 2 | 100.0 | | 3 | 100.0 | | 10 | 70.0 | 30.0 |
| 07 | Nursery | 5 | 60.0 | 40.0 | | | | 4 | 75.0 | 25.0 |
| 08 | Wheat Cultivation | 1 | 100.0 | | | | | | | |
| 09 | Technical Trade (Vocational) | 1 | 100.0 | | | | | | | |
| 10 | Tailoring/Embroidery | 2 | 100.0 | | 3 | 100.0 | | 4 | 50.0 | 50.0 |
| 11 | Small/Petty business | 29 | 6.9 | 93.1 | 20 | | 100.0% | 28 | 3.6 | 96.4 |
| | Total | 104 | 52.9 | 47.1 | 87 | 51.7 | 48.3% | 98 | 33.7 | 66.3 |

**Table A-13: Proportion of respondents received AIG training in the same IGA that they used a loan for - by IGA type and site**

| Sl. | IGA Type | Female | | | Male | | | Overall | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | n | % recv. trn | % no. recvd. | n | % recv. trn | % no. recvd. | n | % recv. trn | % no. recvd. |
| 01 | Cow rearing and Fattening | 37 | 45.9 | 54.1 | 55 | 54.5 | 45.5 | 92 | 51 | 49 |
| 02 | Fish Culture/trading | 9 | 44.4 | 55.6 | 35 | 68.6 | 31.4 | 44 | 63.6 | 36.4 |
| 03 | Poultry | 17 | 88.2 | 54.1 | 10 | 80.0 | 20.0 | 27 | 85.1 | 14.9 |
| 04 | Goat Rearing | 2 | 50.0 | 50.0 | | | | 2 | 50.0 | 50.0 |
| 05 | Small Scale Industry | 6 | 50.0 | 50.0 | 6 | 16.7 | 83.3 | 12 | 33.6 | 67.6 |
| 06 | Vegetable Gardening/Business | 5 | 100.0 | | 10 | 70.0 | 30.0 | 15 | 80.0 | 20.0 |
| 07 | Nursery | 3 | 66.7 | 33.3 | 6 | 66.7 | 33.3 | 9 | 66.7 | 33.3 |
| 08 | Wheat Cultivation | | | | 1 | 100.0 | | 1 | 100.0 | 0.0 |
| 09 | Technical Trade (Vocational) | | | | 1 | 100.0 | | 1 | 100.0 | 0.0 |
| 10 | Tailoring/Embroidery | 6 | 100.0 | | 3 | 33.3 | 66.7 | 9 | 77.8 | 22.2 |
| 11 | Small/Petty business | 23 | | 100.0 | 54 | 5.6 | 94.4 | 77 | 3.9 | 96.1 |
| | **Total** | 108 | 49.1 | 50.9 | 181 | 44.2 | 55.8 | 289 | 46.2 | 53.8 |

**Table A-14: Main IGA Proportion of respondents received AIG training in the same IGA that they used a loan for - by IGA type and site**

| | IGA Type | HH | KM | TB | Total Av. | Total N* |
|---|---|---|---|---|---|---|
| 01 | Cow rearing and Fattening | 4260 | 4504 | 7269 | 5246 | 178 |
| 02 | Fish Culture/trading | 4354 | 3332 | 3071 | 3786 | 78 |
| 03 | Poultry | 5500 | 1542 | 14231 | 8140 | 53 |
| 04 | Goat Rearing | 2250 | . | . | 2250 | 6 |
| 05 | Small Scale Industry | 2500 | 5500 | 1656 | 2406 | 23 |
| 06 | Vegetable Gardening/Business | 9667 | 2667 | 3786 | 4885 | 20 |
| 07 | Nursery | 17286 | . | 10500 | 14818 | 13 |
| 08 | Wheat Cultivation | 4060 | . | . | . | 1 |
| 09 | Technical Trade (Vocational) | 8000 | . | . | 7067 | 2 |
| 10 | Tailoring/Embroidery | . | 2500 | 9143 | 7667 | 12 |
| 11 | Small/Petty business | . | . | 2000 | 2000 | 35 |
| | Total | 5423 | 3852 | 7321 | 5610 | 421 |

**Table A-15:Change in respondent's profession and their income earning ratio**

| Code | Source of Income | Prior to the Project | | During the Study Period | |
|---|---|---|---|---|---|
| | | Respondent employed (%) | Income earned ( 9%) | Respondent employed (%) | Income earned ( %) |
| 1 | Fishing | 52.3 | 25.6 | 18 | 5.12 |
| 2 | Other aquatic resources (plants, snails, birds etc…) | 1.7 | 0.27 | 0 | 0 |
| 3 | Labouring -agricultural | 26.7 | 8.89 | 11.3 | 3.47 |
| 4 | Labouring non-agricultural (transport worker/Carpenter/Mason etc) | 12 | 4.72 | 10.3 | 3.22 |
| 5 | Rickshaw/van driving/renting out | 2.7 | 1 | 3.3 | 1.43 |
| 8 | Fish trading | 6.7 | 3.58 | 10.7 | 4.68 |
| 9 | Fish culture | 3.3 | 0.77 | 17.3 | 5.45 |
| 10 | Handicrafts | 5.3 | 1.41 | 10.7 | 2.81 |
| 11 | Small trade/shop | 14.3 | 6.25 | 29.3 | 11.37 |
| 12 | Skilled trade (eg mechanic) | 1 | 0.54 | 3.7 | 1.16 |
| 13 | Domestic servant | 0.7 | 0.37 | 0.7 | 0.31 |
| 14 | Poultry | 45 | 5.79 | 63 | 10.31 |
| 15 | Cattle/buffaloes | 32 | 4.5 | 46 | 9.2 |
| 16 | Goats/sheep | 7 | 0.81 | 10.7 | 1.33 |
| 17 | Vegetable growing | 13.3 | 1.22 | 31.7 | 4.7 |
| 18 | Tree nursery | 1 | 0.29 | 5 | 1.47 |
| 19 | Cultivating own or sharecropped in land | 61 | 24.35 | 64.3 | 21.5 |
| 21 | Renting out mechanical power | 0.3 | 0.08 | 1 | 0.35 |
| 22 | Renting out/ sharecropping out own land | 0.7 | 0.25 | 1.3 | 0.22 |
| 23 | Business (big) | 3 | 1.41 | 5.7 | 2.56 |
| 24 | Service salary | 10 | 4.91 | 12.7 | 4.2 |
| 25 | From abroad (Relatives sending money) | 1.7 | 0.75 | 3.3 | 1.12 |
| 26 | Selling of trees/bamboos/firewood | 1.3 | 0.45 | 1 | 0.16 |
| 27 | Selling of non traditional agri product (Fruit, Spices/Mushroom etc) | 1.7 | 0.39 | 1.7 | 0.35 |
| 30 | Tailoring | 0.3 | 0.06 | 8 | 2.43 |
| 31 | Others[1] | 2.7 | 1.23 | 2.7 | 0.91 |

[1] Others include beggar, wheat cultivation, driving, retired pension recipients, private teaching (home), religious (Imam, Pujari), beetle leaves growing etc.

**Table A-16: Change in profession and income source by fishing categories**

| | Profession /source of income | Never Fished Av. % of income by source n-142 | | Stopped Fishing Av. % of income by source n=104 | | Continued Fishing Av. % of income by source N= 53 | |
|---|---|---|---|---|---|---|---|
| Income Source (% by source) | | Before | Now | Before | Now | Before | Now |
| 01 | Fishing | | | 46.27 | 0.00 | 54.13 | 28.89 |
| 02 | Other aquatic resources (plants, snails, birds etc…) | 0.31 | 0 | 0.24 | 0.00 | 0.24 | 0.00 |
| 03 | Labouring -agricultural | 6.56 | 2.95 | 11.42 | 3.19 | 10.38 | 5.54 |
| 04 | Laboring non-agricultural (transport worker/Carpenter/Mason etc) | 7.79 | 5.06 | 1.86 | 1.02 | 2.24 | 2.71 |
| 05 | Rickshaw/van driving/renting out | 1.01 | 0.79 | 1.50 | 3.06 | 0.00 | 0.00 |
| 08 | Fish trading | 5.19 | 3.52 | 1.50 | 5.77 | 1.77 | 4.83 |
| 09 | Fish culture | 1.01 | 4.71 | 0.60 | 7.69 | 0.47 | 3.18 |
| 10 | Handicrafts | 2.16 | 1.89 | 0.42 | 4.45 | 1.42 | 2.12 |
| 11 | Small trade/shop | 10.56 | 13.73 | 2.82 | 10.64 | 1.53 | 6.49 |
| 12 | Skilled trade (eg mechanic) | 1.14 | 1.54 | 0.00 | 1.26 | 0.00 | 0.00 |
| 13 | Domestic servant | 0.79 | 0.66 | 0.00 | 0.00 | 0.00 | 0.00 |
| 14 | Poultry | 6.51 | 9.46 | 5.47 | 12.86 | 4.36 | 7.43 |
| 15 | Cattle/buffaloes | 4.71 | 7.44 | 3.73 | 11.42 | 5.54 | 9.79 |
| 16 | Goats/sheep | 1.10 | 0.75 | 0.42 | 1.56 | 0.83 | 2.48 |
| 17 | Vegetable growing | 1.45 | 4.97 | 0.96 | 4.87 | 1.18 | 3.77 |
| 18 | Tree nursery | 0.53 | 1.58 | 0.12 | 1.26 | 0.00 | 1.65 |
| 19 | Cultivating own or sharecropped in land | 32.53 | 24.69 | 17.97 | 19.95 | 15.45 | 16.16 |
| 21 | Renting out mechanical power | 0.18 | 0.22 | 0.00 | 0.72 | 0.00 | 0.00 |
| 22 | Renting out/ sharecropping out own land | 0.53 | 0.31 | 0.00 | 0.24 | 0.00 | 0.00 |
| 23 | Business (big) | 2.38 | 2.68 | 0.84 | 3.37 | 0.00 | 0.71 |
| 24 | Service salary | 8.54 | 6.95 | 2.52 | 2.46 | 0.00 | 0.35 |
| 25 | From abroad (Relatives sending money) | 0.88 | 1.54 | 0.96 | 1.14 | 0.00 | 0.00 |
| 26 | Selling of trees/bamboos/firewood | 0.97 | 0.35 | 0.00 | 0.00 | 0.00 | 0.00 |
| 27 | Selling of non traditional agri product (Fruit, Spices/Mushroom etc) | 0.44 | 0.26 | 0.36 | 0.42 | 0.35 | 0.47 |
| 30 | Tailoring | 0.13 | 0.53 | 0.00 | 2.52 | 0.00 | 3.18 |
| 31 | Others* | 2.60 | 1.80 | 0.00 | 0.12 | 0.12 | 0.24 |

**Table A-17: Change expressed in mean score– before MACH and now by gender**

| Issues/Particular | Female (n=113) | | Male (n=187) | | Overall (n=300) | |
|---|---|---|---|---|---|---|
| | Before | Now | Before | Now | Before | Now |
| Family Income | 2.3 | 5.3 | 2.6 | 5.5 | 2.5 | 5.5 |
| Dependency on Fishing | 2.6 | 1.4 | 2.9 | 1.5 | 2.8 | 1.5 |
| Dependency on other aquatic/WILD resources | 1.9 | 1.1 | 1.8 | 1.1 | 1.8 | 1.1 |
| Change in skill and knowledge for good living | 1.7 | 5.4 | 1.9 | 5.5 | 1.8 | 5.5 |

**Table A –18: Percent of respondents were not or least involved– before MACH and now by gender**

| Issues/Particular | Female (n=113) | | Male (n=187) | | Overall (n=300) | |
|---|---|---|---|---|---|---|
| | Before | Now | Before | Now | Before | Now |
| Proportion/number of poorest people | 19 (16.8%) | 2 (1.7%) | 15 (8 %) | 1 (.5%) | 34 (11.3%) | 3 (1%) |
| Least Dependency on Fishing | 53 (46.9%) | 92 (81.4%) | 81 (43.3%) | 137 (73.2%) | 134 (44.6%) | 229 (76.3%) |
| Least Dependency on other aquatic/WILD resources | 69 (61%) | 53 (46.9%) | 114 (60.9%) | 81 (43.3%) | 183 (61%) | 285 (95%) |
| Change in skill and knowledge for good living | 53 (46.9%) | 3 (2.6%) | 83 (44.3%) | - | 136 (45.3%) | 3 (1%) |

**Table A-19: Impact on Fishing profession by site**

| Site | No. RUG member surveyed | Number used to fishing | Number left fishing (1998-2005) | % left fishing (of those previously fishing) |
|---|---|---|---|---|
| HH | 100 | 47 | 21 | 45 |
| KM | 100 | 76 | 51 | 67 |
| TB | 100 | 43 | 28 | 65 |
| Total | 300 | 166 | 100 | 60 |

**Table A-20: Impact on Fishing profession by site**

| Site | No. RUG member surveyed | Number used to fishing | Number left fishing (1998-2005) | % left fishing (of those previously fishing) |
|---|---|---|---|---|
| Female | 113 | 60 | 40 | 67 |
| Male | 187 | 106 | 60 | 57 |
| Total | 300 | 166 | 100 | 60 |

**Table A-21: Retention of training knowledge (mean score) by Respondent's education level**

| Education level | Average retention level |
|---|---|
| Illiterate/Can sign | 2.6 |
| Primary | 2.5 |
| Secondary | 2.7 |
| Higher secondary | 3.0 |
| Overall | 2.6 |

**Table A-22: Course wise training learnings**

| Name of Training Course | Received Learning |
|---|---|
| Cow rearing and fattening | Cow fattening process<br>How to identify cow disease<br>Process of cow food<br>How to identify (quality) variety of cow<br>When to feed vitamin to cow |
| Poultry/duck rearing | Type of foods provided to poultry bird<br>How to identify poultry bird disease<br>How to build house for poultry bird<br>How to identify variety of poultry bird<br>How to maintain hygienic security |
| Fish culture/nursery | How to clean ponds<br>How and when to feed fish<br>Better knowledge about fish culture<br>When to sell brood fish<br>How to identify fish disease |
| Plant nursery | How to plant trees<br>Quality of fertilizer given to deferent variety of trees<br>Seed preservation process<br>How to plant in polythen bag<br>Grafting process |
| Vegetable cultivation | Knowledge about variety of vegetable<br>Knowledge about Chemical fertilizer<br>How to make pit of plantation<br>Time of plantation to different types of vegetables and seeds<br>Seed quality identification |
| Wheat cultivation | Knowledge of variety wheat<br>Quality and timing fertilizer use<br>Wheat hunting process |
| Vocational | Process and types of welding<br>Gas cutting and holding<br>Maintenance of Machine<br>Knowledge about road signal and traffic laws<br>Driving vehicle |
| Tailoring | How to swing shirt, pant, kamiz<br>How to measure cloth<br>Basic knowledge of swing machine parts |
| Bamboo and cane | How to make Mora, Chalon, Kula, Dala<br>How to cutting process bamboo and cane<br>How to use (quality) variety bamboo<br>How to plug cane |

**Table A-23. Change in the life-style of the respondents due to training**

| Gender | Site | | |
|---|---|---|---|
| | HH | KM | TB |
| Male | ▪ Income Increased<br>▪ Increased Knowledge, Experience, Skill and Awareness level<br>▪ Can send children to school<br>▪ Food Security ensured<br>▪ Improved social status<br>▪ Alternative Income Opportunity created<br>▪ Standard of living improved or upgraded | ▪ Income Increased<br>▪ Increased Knowledge, Experience, Skill and Awareness level<br>▪ Food Security ensured<br>▪ Can send children to school<br>▪ Alternative Income Opportunity created<br>▪ Standard of living improved or upgraded<br>▪ Improved social status | ▪ Increased Knowledge, Experience, Skill and Awareness level<br>▪ Income Increased<br>▪ Improved social status<br>▪ Standard of living improved or upgraded<br>▪ Alternative Income Opportunity created |
| Female | ▪ Income Increased<br>▪ Increased Knowledge, Experience, Skill and Awareness level<br>▪ Can send children to school<br>▪ Food Security ensured<br>▪ Improved social status<br>▪ Alternative Income Opportunity created<br>▪ Standard of living improved or upgraded | ▪ Income Increased<br>▪ Increased Knowledge, Experience, Skill and Awareness level<br>▪ Food Security ensured<br>▪ Can send children to school<br>▪ Alternative Income Opportunity created<br>▪ Standard of living improved or upgraded<br>▪ Improved social status | ▪ Increased Knowledge, Experience, Skill and Awareness level<br>▪ Income Increased<br>▪ Improved social status<br>▪ Standard of living improved or upgraded<br>▪ Alternative Income Opportunity created |

**Table A-24: Participants perspective on increasing training impact by site and gender**

| Gender | Site | | |
|---|---|---|---|
| | HH | KM | TB |
| **Male** | ▪ Extend training days<br>▪ Loan and training should be coherent<br>▪ Area wise training opportunity established / created<br>▪ Increase / arrange training allowance<br>▪ Increase size of loan amount<br>▪ Include recreation during training<br>▪ Arrange training on new areas / subject<br>▪ Existing training process is just fine with us<br>▪ Diversity training process | ▪ Extend training days<br>▪ Existing training process is just fine with us<br>▪ Arrange training on new areas / subject<br>▪ Provide improved adult education<br>▪ Increase / arrange training allowance<br>▪ Loan and training should be coherent<br>▪ Diversity training process | ▪ Extend training days<br>▪ Loan and training should be coherent<br>▪ Increase / arrange training allowance<br>▪ Increase size of loan amount<br>▪ Diversity training process<br>▪ Arrange training on new areas / subject |
| **Female** | ▪ Extend training days<br>▪ Loan and training should be coherent<br>▪ Area wise training opportunity established / created<br>▪ Increase / arrange training allowance<br>▪ Increase size of loan amount<br>▪ Include recreation during training<br>▪ Arrange training on new areas / subject<br>▪ Existing training process is just fine with us<br>▪ Diversity training process | ▪ Extend training days<br>▪ Existing training process is just fine with us<br>▪ Arrange training on new areas / subject<br>▪ Provide improved adult education<br>▪ Increase / arrange training allowance<br>▪ Loan and training should be coherent<br>▪ Diversity training process | ▪ Extend training days<br>▪ Loan and training should be coherent<br>▪ Increase / arrange training allowance<br>▪ Increase size of loan amount<br>▪ Diversity training process<br>▪ Arrange training on new areas / subject |