

Report on

Second assessment of public awareness about wetland resources and bio-diversity conservation, MACH project



Submitted to:

Chief of Party

MACH-ISF, Dhaka

House 2, Road 23/A, Gulshan

Dhaka 1212

Conducted By:

CAPACITY BUILDING SERVICE GROUP (CBSG)

6/1 Block-B (Ground floor)

Lalmatia, Dhaka 1207

Phone: 913102, 8155672

Email: cbsg@bdonline.com

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ACRONYMS AND DEFINITIONS

BCAS	Bangladesh Center for Advanced Studies
CBSG	Capacity Building Service Group
CNRS	Center for Natural Resource Studies
EC	Executive Committee
FRUG	Federation of RUGs
GB	General Body
GV	General Villagers
HH	Hail Haor
IGA	Income Generating Activities
KM	Kangsha-Malijhee
LG	Local Government
LGC	Local Government Committee
MACH	Management of Aquatic Ecosystems through Community Husbandry
NGO	None 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

Capacity Building Service Group (CBSG) has conducted the awareness assessment of MACH project for the second consecutive year. With the excellent professional of MACH project and its staff member, CBSG has been successful to conduct survey and presents this report.

This survey report is the result of a co-operative and mutually supportive exercise between CBSG and MACH project staff and partners from all levels.

CBSG takes the pleasure to thank all MACH staff and partners but in particular to Mr. Darrell L. Deppert, Chief of Party and Mr. Paul M. Thompson, Sr. Natural Resource Advisor, MACH for their genuine support and commitment to the work and subsequent consultations. Special thanks are due to Mr. Ziaul Haque, Mr. Mazharul Islam and Mr. Pallab, Site Coordinators of KM, HH and TB sites respectively for their full support and for guidance during field work, planning and data collection.. It was refreshing to meet each one of them personally and professionally extremely satisfying as they shared a unique worldview of development, participation, research in empowering the poor and their institutions.

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 the program participants and general villagers to make this survey a success.

Finally, while acknowledging the valuable inputs of all the above, CBSG stands 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

This report provides the current awareness situation of the community people on key issues related to natural resource management and habitat conservation over an entire wetland ecosystem in the MACH project area. The results of the awareness situation survey 2006 were compared with the follow-up and baseline surveys conducted in 2005 and 2004 respectively, to determine if awareness of the community people has been changed by MACH project interventions, and to understand the effectiveness of different communication strategies adopted by the project.

This time the study was conducted on two categories of respondent those includes community people and the local government committee members. As many as 315 community people participated in the survey that included 225 project participants (RMO and RUG members) and 90 general villagers. Structured questionnaires were administered among the respondents of the project area to gather information.

Major Findings

The community respondents included 69% male and the rest 31% were female. About 40% respondents were found illiterate or can sign only. A good proportion of respondents (37%) had secondary and above level of education. About 30% of the respondents were found to be self-employed¹. Another 27% of the respondents were found to be engaged in agriculture as their primary occupation followed by business and fishing.

Almost all respondents acknowledged the improvement of wetland in the last few years. The major improvements include: wetlands environment, sanctuary establishment, forestation along the side of wetlands, increased fish production, and stopped fishing of spawn & brood fish. The respondent also acknowledged MACH and its program partners including RMO and RUG for making this improvement happen. Most of the respondents were aware about MACH project. Many of them had participated more than one activities of MACH such as RMO and RUG meeting, sanctuary establishment, rallies, plantation and excavation etc. However, participation of general villagers was found quite low in comparison to the project participants. Although, the situation has improved slightly from the follow-up survey of 2005.

As far as MACH awareness message is concerned, 58% respondents (as against 52% in 2005) could recall 1-3 messages, 24% (as against 20% in 2005) recall 4 and more messages. 18% (as against 28%) could not recall any message – 68% of whom general villagers and rest 32% are project participants.

Regarding awareness on MACH objectives, a progressive improvement is evident. The comparison of awareness among the project participants had showed a significant improvement (74%) in 2005 from the baseline (2004) but the level was at below average level ²(1.98). This time the improvement is 31% from 2005 and their awareness level has increased to above average level (2.60) as far as MACH objectives are concerned. The awareness situation of general villagers (1.25) about MACH objectives remained static since 2005. Among the project participants, RMO members' average level of awareness (2.67) was found slightly higher than that of RUG members (2.51). Education status of the respondents seemed not having significant influence on awareness level. Gender wise male has fairly better level of awareness than those of female.

RMO member's awareness level of regarding their organisation and responsibilities had increased significantly (62%) in 2005 and since then the improvement has dropped little (12%) down. Likewise, RUG members' awareness on their organization had increased by 92% from 2004 to 2005 and now has increased only 23% in 2006.

¹ Self employment included homestead based agriculture, tailoring, home-based poultry, livestock, nursery and fish culture, vaccination, mechanic, boatman, hawkers etc.

² Scale interpretation of objective level responses: 0 = Not at all, 1 = Very Little, 2 = Average, 3 = High, 4= Very High

MACH communication activities were targeted mostly to the project participants but some were also to the general villagers. The assessments of 2005 and 2006 revealed a steady growth of awareness level of MACH communication activities across the board. The results of surveys had reported a significant growth in 2005 in comparison to 2004 baseline. But since then the pace of development has slowed down. In the baseline, overall awareness level among the project participants was very low which had increased in 2005 but yet in 2006 remains below average. Similarly, awareness level among the general villagers was almost non-existent in 2004, which had enhanced to some degree in 2005 and since then no substantial improvement has been observed. As far as the effectiveness of various communication interventions were concerned, exhibitions, courtyard meeting, live drama, folk songs and miking were found to be the most effective among all the communication interventions. Besides, rally/day observance and community level meetings were seen to be quite effective. The project recently introduced some RMO led communication interventions. Among them RMO gathering was found somewhat effective and other types of interventions are yet to create significant public attention.

MACH used different communication materials to disseminate awareness raising information. MACH communication materials mainly included posters, signboards, booklets, handbills and other educational materials on wetland resources. Very recently, RMOs have also introduced few communication materials such as leaflets, newsletter etc. The awareness level of various communication materials has improved progressively to a certain extent among the project participants as well as among the general villagers. Yet the current awareness level still remains below average level. Awareness level of project participants was found far better than the general villagers. Regarding the effectiveness of materials, signboard, educational materials and posters/folders were the more effective materials than other materials. However overall effectiveness of MACH material was found at below average level though some progressive improvement had observed in 2005 and 2006. The awareness and effectiveness of RMO introduced materials were not even found very encouraging.

The study team also looked if gender had any implication on level of awareness. The data from the surveys (2005 and 2006) showed that gender had bearing on the level of awareness as well as effectiveness about communication activities and materials. Male respondent had higher level of awareness than the female respondents. Likewise, male respondents found the MACH communication activities and materials were more effective than the female respondents. However, the difference was not very significant, as both male and female still had below average level of awareness on the MACH communication interventions/materials and its effectiveness.

The study revealed that there was a strong correlation existed between the educational attainment and the awareness level of the respondents. This relationship held true across all three-project sites for communication interventions and materials. The lower the education attainments lower the awareness level. Illiterate people were found very little aware about MACH communication interventions and materials.

Besides the community people, the current study also interviewed 10 LG members involved in MACH project implementation. Government officials (UNO and UFO) and local UPs were asked about their awareness of MACH project. The overall awareness of LG members was found to be high about the project and in particular about the various awareness interventions. There has been observed a significant improvement of the awareness level of LG members since 2005 survey. The LG members expressed that their increased participation in project implementation can contribute to the long-term sustainability of MACH project benefits.

The consultant have also analysed the issues and comments made by the project participants, villagers and LG members during the course of study and found that some of them are key issues that might need attention from the MACH project. These include:

Good Governance: It has been increasingly felt by the project participants to ensure equitable benefit from the project in particular to the poor. Corruptions and lack of law enforcement are causing serious impact on the poor.

Dominance of Elites and vested interest group: The benefits of MACH project are continuing to be distributed disproportionately among various groups of people. Elites are still skimming from the project leaving the poor far behind from accessing equitable economic opportunities.

Livelihoods and supplementary income: Livelihood of the poor fishermen still at risk during non-fishing period though the project has introduced supplementary income options through credit and training. Interest rate also perceived as high to the respondents. Credit coverage may go far beyond the RUG members to include even the general poor villagers.

Awareness development: MACH has made significant strive for awareness building of the community people. However, there is a clear need for more awareness development activities from the community people but it needs to be focused on specific groups and tailor made approaches.

Conclusions and Recommendation

A steady improvement of awareness is evident among the project participants over the years. In compare to the baseline and follow up awareness study, the third awareness study shows significant improvement of awareness particularly among the RMO and RUG members. The increase of awareness among the general villagers was found less significant during the last year. However, lot more awareness development is needed if the community-based management of the wetland has to sustain.

MACH had introduced a number of new communication and awareness development activities. Many of these activities were initiated locally by the RMOs such as exposure and exchanged visit, RMO gathering, RMO produced leaflet etc. So far these activities had made limited impact though the potentiality of these activities were said to be great by the RMO leaders.

Relative awareness on MACH is seen to be much higher among the RMO members than the RUG members. In other words, RUG members are falling behind from the main spirit of MACH project. Rather they tend to be more interested with savings and credit activities. There is a need for balancing act to establish complementarities between MACH project activities and IGA programs in particular for the RUG members.

Awareness level of the general villagers has increased but only marginally. They are yet to be integrated within the project frame. They continue to remain on-lookers to the project. Effective integration of the villagers who constitute majority of the population around the wetland remains the key issue for sustainability of the project. RMO as an emergent local institution can take an ever-increasing role to effectively integrate the general villagers with MACH project where FRUG can play a complementary role.

Way Forward

The study team have reflected on the overall findings of the second awareness assessment compared to baseline situation and first awareness assessment - by the same team in 2005. Based on the reflections and the experience with communication strategy development, the consultants following recommendations are made for the MACH project management.

Interactive and locally accepted communication method and materials: The project has number of interactive communication approach already in place like drama. To be more effective the dramas could be bolstered by introducing locally acclaimed stories, characters, and dialects.

The communication events particularly the interactive one should be implemented in an iterative manner so that the participants can deepen their understanding on the issues. One of an event will not be much helpful.

Special program as well as focus is necessary for the general villagers to enable them to effectively collaborate with the project participants. Appropriate communication methods including selection media and adequate intensity will be needed to bring their awareness compatible to the project participants.

Advanced RUG and RMO members can be used as effective communication channel for awareness development of the poor villagers. Such members can be trained to work for MACH.

Government officials, public representatives and local opinion leaders have great potential to work as change agent and facilitate mobilization and awareness building. MACH project can devise specific role for them to work on various awareness building activities particularly at RMO level programs and events.

SECTION – I: INTRODUCTION

1 Background

This 2006 awareness assessment survey is the third of this kind undertaken by MACH project. Using the same basic tools, this survey result expressed a progressive status of MACH awareness interventions for the year 2004, 2005 and 2006 on the people of the project areas.

MACH project has been in operation for 7 years and is approaching towards the end of second phase. The project had envisaged the need for sustainable approaches 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 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.

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 commissioned two awareness assessment study in 2004 and 2005. Based on the assessment findings and recommendations, MACH revitalized its awareness building activities and communication strategies to have deeper understanding and awareness on wetland resources and eco-system and programme approach. This assessment is conducted to capture the current level of awareness among various groups and stakeholders of MACH, specifically:

- 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;
- 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
- understand the reasons for patterns of awareness and the role and effectiveness of project communication media/channels.

1.1 Study Objectives

The broad objective of the study is to assess public awareness about wetland resources and biodiversity 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.

1.2 Scope of work

- Develop interview questionnaire through an interactive process with full participation of MACH as well as project beneficiaries and finalized the questionnaire through field tests.
- Conduct interview with 315 stratified but randomly selected RMO members, RUG members and local villagers, and 10 LG members of MACH project,
- 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

2 Methodology and Implementation

This awareness assessment 2006 of MACH project adopted the quantitative survey research methodology to assess the current awareness level of the survey respondents and compare that with the baseline and follow-up surveys conducted in 2004 and 2005 respectively. Methodology and implementation procedures adopted for the current awareness assessment survey are given below:

2.1 Survey:

Survey was used to capture the response of key research questions from the audience with variety of socio-economic characteristic. The survey itself attempted to capture information that was sought in the study queries.

A structured and mostly pre-coded questionnaire was administered among 315 MACH project participants and non participants in the project area. In addition 30 staff members of MACH project partners and 10 Site level GoB administration staff, Fisheries Officers and union level local government representatives were interviewed. Both quantitative and qualitative information from the members through interactive personal interviews were captured.



2.2 Study Area:

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

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

2.3 Sampling

A total of 315 sample respondents (project participants and general villagers) were drawn from three sites using purposive random sampling methodologies. In addition, 10 LGC members comprising of UNO, UFO and local UP representatives were also selected randomly for interview. The following table presents the sample size by respondents' category.

Table-1: Sample size by category of respondent

Sl.	Stakeholder type	Selected sample size	Sample per site	Remarks
1	RMO EC member (may be in RUG or not)	36 (4 per RMO)	3 RMOs per site 4 members x 3 RMO=12	Included either president or Secretary plus any 3 EC members and at least one was female
2	RMO GB but not in RUG	36 (4 per RMO)	4 members x 3 RMO=12	General members of RMO only at least 30% was female
3	RMO GB and in RUG	63	21 per site: 7 per RMO area	Covered at least 2 RUGs in one RMO area and at least 30% was female
4	RUG and not in RMO	90	30 per site 10 per RMO area	Covered at least 3 RUGs per RMO area and at least 30% was female
5	General villagers	90	30 per site 10 per RMO area	Near by RUG and 30% was female
6	LG people	10	<u>TB</u> : UNO, UFO, UP-CH <u>KM</u> : UNO,UP-CH-, UFO-2 (Sr. +Jr.) <u>HH</u> : UNO and Sr. UFO, UP-CH	Similar to 2005 assessment survey
Total Sample size except the LG people was 315 same as 2005 survey				
Total 9 RMOs have been covered, 3 RMOs per site. In KM and TB sites, one RMO out of 3-sampled last year (2005) was different while in the HH site all 3 RMOs were different from last year sample.				

2.4 Identification of Primary Sampling Unit (PSU)

Samples have equally been drawn from each MACH project sites. RMO or RUG selected in the last year survey was not included in this year sampling frame. RMOs and RUGs were selected using random sampling method. Afterwards, the ultimate sampling unit was identified from the members' list of respective RMOs and RUGs using systematic sampling procedure. General villagers were selected from the communities near by RMO and RUG. However, in case of non-availability or missing respondent, next number from the existing client list was chosen for interview.

2.5 Assessment tool development:

2.5.1 Survey Questionnaire:

The survey was administered using same tools used last year. Survey questionnaire was made relevant to communication interventions undertaken by MACH in last one year. Accordingly, CBSG redrafted the questionnaire for field test.

- CBSG had field tested the draft questionnaire at the TB site and shared the findings with the MACH managements.
- Based on the consultation between CBSG and MACH, the two sets of survey questionnaires were finalized. One questionnaire set was prepared for public (project participants and non-participants) awareness assessment and the other set were prepared for the LG member's awareness assessment.
- Both the survey questionnaires are attached as annex 2 and 3.

2.6 Review of communication materials and baseline survey

CBSG also reviewed the MACH project documents including annual report, RMO constitutions, and various types of communication materials. These materials provided CBSG an updated understanding about the project.

2.7 Implementation

The assessment study begun with the inception and briefing meeting with the management of MACH. Then relevant documents, reports and baseline survey reports were reviewed. Afterward a detail implementation plan including timeframe and responsibilities was chalked out.

The next task was the update of survey instruments and implementation guides. All these tools were refined through field test in one of the MACH project site. Before the survey work, all the field enumerators were provided with two days classroom and one day field training. Fieldwork was undertaken with intensive supervision and required quality control mechanism installed at various levels. Consultants made a number of field visits during the fieldwork.

On completion of the fieldwork, the data was coded and analyzed using computerized data management system. The draft report was then prepared and submitted to MACH for their suggestions. Following section gives more detail of implementation.

2.8 Field Survey

The data collection took place between 25th August and 15th September 2006. A group of 14 enumerators balanced by gender and familiar with development programme and experienced in field data collection – were deployed for the assignment to undertake the field investigation. About 50% of them were involved with similar types of work during 2005 survey. Afterward field enumerators were divided into 2 teams and a supervisor guided each team. The whole field investigation team worked under the guidance of a Field coordinator. The survey specialist coordinated the whole survey process.

2.9 Quality Control and Field Editing

As part of the quality control measures, around 10% respondent was re-interviewed by the respective field supervisors and required corrections were made on the spot. Field supervisors checked the completed survey questionnaire for any inconsistencies before departing from the field. The field supervisors, in turn, deposited the questionnaires to the field coordinator. The field coordinator and Survey Specialist checked the questionnaires for the second time. 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 and to discuss field interviews with the participation of enumerators, field supervisors and the field coordinator for final check at the field level.

2.10 Final Editing, coding and de-coding

For open-ended and pre-coded queries, data editing, coding and decoding were done at central level in Dhaka. A team comprising field supervisors – experienced in editing, coding and decoding carried out whole task under the guidance of survey specialist.

2.11 Data Analysis, processing and quality control

The quantitative data were processed and analyzed by using statistical techniques. On the other hand qualitative information was presented in a narrative or tabulated (weighted average) form to measure the awareness and understanding level of community people. To assess the awareness and understanding level of the community people a five point Likert Type scoring scale was used. Following provides an illustration of Likert Type Scale.

Score	Explanation
0	Not at all/not applicable
1	Very little
2	Average
3	High
4	Very high

For analysis and reporting, survey data was initially stored into the electronic format using Access database, which was then transferred into SPSS format that provided the main frame for data analysis. A Smart and conditional data-entry software was developed using a combination of Access and Visual basic to filter quality and consistency during data entry. Coding and de-coding were done to handle the data in the electronic form. A thorough consistency check was done before taking simple tables, data ranges, frequency distributions and descriptive tables. The basic tables worked as guide to develop a more detail and cross-analytical tables for analysis.

2.12 Report Flow

This report is presented in six Sections besides an executive summary. Section I contains background and objectives of the assessment. Section II includes methodology. Section III contains findings and analysis of community people (RMO, RUG and General Villagers). Section IV contains suggestions by the community people, conclusions and recommendations. Section V includes awareness assessment of MACH LG members. In addition, there are annexes for further references.

2.13 Limitation of the study

A large part of the survey questions were responded through Likert type scoring. The awareness issues are by default is subjective in nature but the information was collected through objective 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.

Other than this few operational difficulties were faced during the fieldwork, which includes identifying the survey respondent, travelling to difficult places. Excellent cooperation and support from MACH project staff had been very instrumental to address these difficulties.

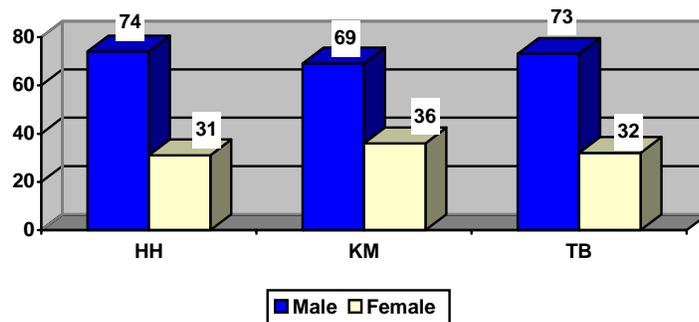
SECTION III: FINDINGS AND ANALYSIS

3 Basic Characteristics of the respondents

3.1 Gender composition of the respondents

The sample size remained unchanged from 2005 survey. The study was conducted on 315 respondents comprising both male and female. 69% of the respondents were male and the rest 31% were female. Male and female participation in HH and TB were almost identical at a rate of 70% and 30% respectively. But in KM site male participation was slightly lower compared to other two project sites i.e. 65%. Therefore the ratio between male and female participation in the survey was 69:31.

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



3.2 Educational level of the respondents

The study was conducted on the people of various backgrounds. Education level of person is in general gives an idea about his/her understanding and awareness level. Education is considered as a key factor in determining background of a person and his/her social position. The survey results show that a range of people with various educational qualification participated in the survey. About 40% of the respondents had no education. About one third had only secondary level education. Another quarter of the interviewees had primary level education and only 4% of the respondents had higher secondary or above levels of education. There are some differences between the MACH project participants and the general villagers in terms of educational attainments. Following table gives the detail.

Table-2: Education level of the respondents in percent

Education levels	Project Participant n=225	General villagers n=90	Total
Illiterate/Can sign only	37.3	44.9	39.5
Primary Level	24.4	22.5	23.9
Secondary Level	34.7	27.0	32.5
Higher Secondary & above	3.6	5.6	4.1
Total (%)	100	100	100

In general, project participants have better educational background compared to general villagers. Literacy levels of various respondent groups suggest that RMO EC members had higher level of education than other respondent groups. RUG members had the lowest level of education among all the respondent groups meaning that RUG members perhaps come from the disadvantaged social group of the community. For more detail please see annex 4 (Table A-3 & A-4).

3.3 Occupation of the respondents

The study attempted to look at the occupational status of the respondents. The study revealed that the respondents were involved in diverse occupations. Farming on own agricultural land was found as number one occupation of the respondent group. About 30% respondents were found to be self-employed (Self-employment included homestead based agriculture, tailoring, home-based poultry, livestock, nursery and fish culture, vaccination, mechanic, boatman, hawkers etc.) However, they mostly constituted of female respondents. Small business (12%) has been the next important occupation and they mostly of male respondent. In the HH site about 21% male respondents were found fisherman, but in overall only 7% were found fishing as primary occupation. Following table gives a vivid description of gender wise occupation of the survey participants in three project sites.

Table-3: Primary Occupation status of the Respondent in percent

Occupation	HH (n=105)		KM (n=105)		TB (n=105)		Total (n=315) %
	Male	Female	Male	Female	Male	Female	
Agriculture in own land	28.4	3.2	42.6	.0	45.2	.0	26.8
Share cropper	10.8	.0	5.9	.0	1.4	.0	4.1
Fishermen	21.6	.0	7.4	.0	2.7	.0	7.3
Agriculture labor	1.4	.0	7.4	.0	1.4	.0	2.2
Business – Small	16.2	6.5	14.7	.0	19.2	3.1	12.4
Business – Large	9.5	.0	5.9	.0	4.1	.0	4.5
Government employee	.0	.0	1.5	.0	1.4	.0	.6
NGO employee	1.4	3.2	.0	.0	6.8	9.4	3.2
Self employed	9.5	74.2	14.7	86.1	11.0	46.9	29.9
Carpenter	1.4	.0	.0	.0	4.1	.0	1.3
Cottage industry	.0	9.7	.0	8.3	.0	6.3	2.5
House wife	.0	3.2	.0	5.6	.0	15.6	2.5
Others	.0	.0	.0	.0	2.7	18.8	2.5
Total (%)	100	100	100	100	100	100	100

The study also revealed that most of the respondents were involved in other form of secondary occupation from where they earn supplementary income. Some of the major secondary occupations included: agriculture in own land, self-employment, fishing, sharecropping etc. While analysing the secondary occupation status, it has revealed that about 14% respondents are doing fishing as secondary occupation. The details of secondary occupation of the respondents can be found in annex –4 (Table A-1 & A2).

3.4 Familiarity of RMO Office and RUG meeting place

MACH project takes specific plan to establish Office for each RMO. Most of the offices building are now in place and functioning. However, both RMO and RUG maintain office and meeting

place respectively formally or informally. The survey tried to understand how much the RMO³ and RUG members were familiar with their respective RMO office and RUG meeting place. About 83% of the RMO respondents were familiar with RMO and its office. In contrast, about 56% of RUG respondents could identify RUG and its meeting places. However, site wise situation about familiarity is presented below:

Table 3.1: Familiarity of RMO and RUG members with respective office and meeting place

Site	% of RMO members familiar with RMO Office (n-135)	% of RUG members familiar with RUG meeting place (n=90)
Hail Haor	64.4%	46.7%
Kangsha-Malijhee	88.6%	63.3%
Turag-Bongshi	97.8%	56.7%
Total	83.6%	55.6%

4 Current Situation of wetland

4.1 Changes in the wetland area

The survey asked the respondents if they had noticed any changes in the wetland in last few years. Cent percent project participants acknowledged a number of positive changes occurred in the wetland and more than 98% general villagers also acknowledged the changes. The study further asked the respondents to elaborate on the kind of changes they had noticed. The respondent identified a number of changes, which are categorised in twelve concrete areas of change. Cent percent respondents acknowledged that sanctuary established and improved environment of wetland. About 79% percent respondents recognized that forestation is done along –side the haor/beels. Other major changes included increased fish production; stopped fishing in lean season(April-June), stopped fishing of spawn and brood fish and use of current net etc. However, relatively higher proportion of project participants could mention the changes brought by MACH projects than the General Villagers. Following table gives more detail on site wise changes as perceived by the respondents. (*Site wise is presented table in the annex Table A-5*)

³ Only RMO members were asked about RMO office and only RUG members were asked about RUG meeting place while general villagers were asked neither of the above questions.

Table-4: Changes (response in percent) brought by MACH project by respondent type

Changes noticed	Changes brought by MACH Project		
	Project Participants (n=225)	General Villagers (n=90)	Total (n=315)
Sanctuary established and wetland environment improved	100	100	100
Forestation along the side of wetland	88	69	79
Overall fish production increased including indigenous fish species	86	50	70
Stopped fishing in the haor for three months (April-June)	74	41	58
Awareness increased in general	71	32	52
Using current net is now prohibited	69	15	42
Stopped bird hunting	55	13	34
Excavation of haor is done on a regular basis	55	11	33
Opportunity of alternative income created	45	0	23
Stopped fishing of spawn and brood fish	41	11	26
Stopped fishing after complete irrigation of wetlands water	32	0	16
Measures taken not to catch rear fish	13	8	11

4.2 Factors and actors enabled the changes

The respondents were asked what factors had enabled the change to occur. In reply the respondents mentioned both the name of the actors who enabled the changes and a number of factors that also contributed to the change. In most occasions, the respondents had mentioned more than one actor and/or factor for the changes. Following table describes the role of various actors as well as factors that enabled changes in the wetland condition.

Table-5: Changing Agents as per respondents by their types (response percent)

	RMO	RUG	GV	Total (315)
MACH project as a whole	91.1	76.7	63.3	79.0
CARITAS	42.2	67.8	38.9	48.6
RMO	39.3	25.6	15.6	28.6
CNRS	26.1	8.9	11.1	16.3
RUG	5.2	12.2	3.3	6.7
Local Elite	18.5	14.4	10.0	14.9
Local Administration	7.4	3.3	3.3	5.1
NGO workers		1.1	4.4	1.6

The table reveals that MACH project rank the top as actor for making the change. In totality, 79% respondents mentioned MACH project as against 87% in 2005. About 48% (as against 35% in last year) respondent mentioned CARITAS responsible for this change. Respondent type-wise, about 68% RUG members (as against 43% in last year) mentioned that CARITAS is the actor behind the change while 42% RMO and 39% GV members mentioned the same actor name. It may be mentioned that CARITAS is primarily attached with RUG members. About 28% respondents mentioned that local RMO has brought the change through awareness building and income generating activities. The respondents for changing the condition of the wetland also mentioned few other actors/factors. Among three sites, MACH project name was mentioned highest in the TB site and similarly CARITAS name was mentioned more in KM site than other two sites (*Site-wise table is presented in the annex Table A-6*).

5 General Awareness about MACH project

5.1 Awareness about MACH project

The study made an attempt to assess the level of awareness about MACH project and its various elements. The study revealed that cent percent respondent of both project participants and general villagers were aware of MACH project as found in the 2005 survey too. Regarding RMO and RUG, 96.9% project participants were aware of RMO and 98.7% project participants were aware of RUG. General villagers were found to be less aware of RMO and RUG. The awareness about RMO and RUG were found to be 64% and 53% (as against 71% and 67% in 2005) respectively. About MACH activities, 100% project participants were found to be aware while 72.2% (as against 83% in 2005) general villagers were aware of MACH activities. Following table gives the detail.

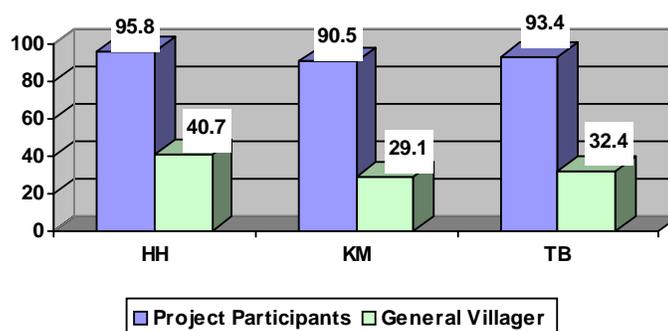
Table-6: Awareness of the respondents about MACH and its components in percent

Area of awareness	Project Participant (n=225)		General Villagers (n=90)		Total (n=315)	
	Yes	No	Yes	No	Yes	No
About MACH Project	100.0		100.0		100.0	
About RMO	96.9	3.1	64.4	35.6	87.6	12.4
About RUG	98.7	1.3	53.3	46.7	85.7	14.3
About MACH activities	100.0		72.2	27.8	86.4	13.4
Total (Average)	98.9	1.1	72.5	27.5	90.0	10.0

5.2 Participation in MACH activities

MACH organises several social and awareness events where project participants and general people participate. It promoted participation of project participants and general villagers in various grass roots level activities. About 76% respondents (as against 74% in 2005) were found participated in one or more MACH activities. However, 93% (92% in 2005) project participants participated in MACH activities while the participation of general villagers was only 34% (as against 28% in 2005). In the HH site, participation of MACH activities has been found higher in comparisons to other two sites both for project participants and general villagers. Lowest participation observed in the KM site.

Figure-2: Site wise participation in MACH activities by respondent type in percent



The survey team further enquired the respondents who had participated in MACH activities and tried to capture actually what activities they had participated. The respondents gave a range of activities they had participated in MACH activities. Many of them had participated more than one activities of MACH. However, RMO and RUG activities such as organizational meeting, saving & credit had been the most participated activity of MACH as 93% of participated project participants (out of 210) and 36% of participated general villager respondents (out of 31) in this activity. Besides, participation of structural/physical activities such sanctuary establishment, plantation and excavation work was also quite high as 69% participated respondents of project participants and 24% general villager respondents had participated in these activities. Details participation by respondent type in MACH activities is given in the following table.

Table-7: Types of participation in MACH activities in percent

Types of Participation	Type of Respondent	
	Response percent of PP n=210 ⁴	Response percent of GV n=31
RMO & RUG activities (Meeting, Savings Credit etc)	93	36
Sanctuary establishment, plantation & excavation work	69	24
Rally and discussion meeting on important day observance	67	29
Participated in courtyard meeting & awareness raising activities for general villagers & fisherman	54	22
Helped in Miking	18	6
Participation and observation of live drama / Folk song	13	3
Social development activities through additional support by the project	17	0
Fish restocking	15	0
Participated in cross visit	5	0

It is evident from the above table that general villagers' involvement with MACH activities significantly lower than that of project participants. The situation has slightly improved from 2005

⁴ Out of 225 PP, 210 responded, "Yes" to have participated in the MACH activities. Likewise, 31 general villagers out of 90 responded "Yes" to have participated in the MACH activities.

but still not enough. The project may think for strategies to attract general villagers in the project activities for its future and long-term sustainability.

5.3 Awareness about MACH activities

The survey looked at the level of awareness about MACH activities among the respondents. They have mentioned quite a number of activities. It is evident from table below that project participants could mention relatively more activities than that of general villagers. Interestingly, general villagers could not mention the activity “Group formation & supplementary income generating activities through training & credit” as much as project participants as the general villagers are not part of it. Excavation, Sanctuary establishment, plantations are more visible activities and people are more involved with.

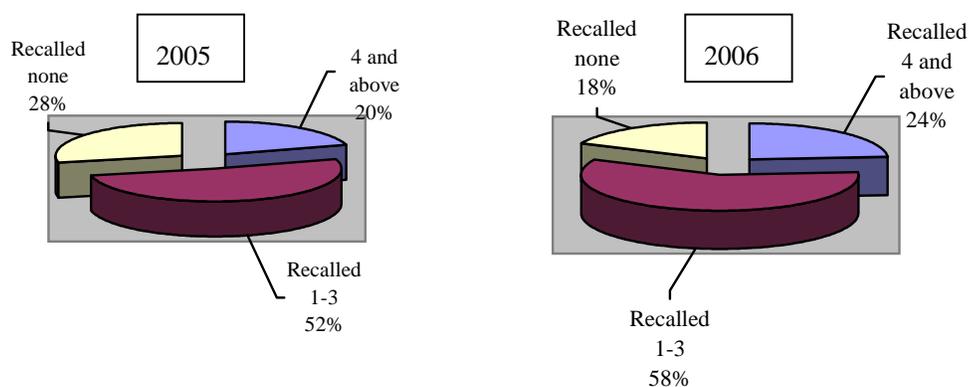
Table-8: Awareness about MACH activities by respondents type (response percent)

Activities	Project Participant (n=225)	General Villagers (n=90)	Total
Group formation & supplementary income generating activities through training & credit	58	45	54
Sanctuary establishment & sustainability	45	37	43
Excavation & Plantation	42	35	40
Indigenous threatened fish species re-introduction	20	13	18
Awareness created through meeting	17	12	16
Stopped illegal fishing	12	7	10
Stopped bird hunting	12	7	10

5.4 Awareness about MACH messages

The respondents were asked about MACH messages during the survey. In totality, 58% respondents could recall 1-3 messages as against 52% in 2005, 24% recall 4 and more messages and 18% could not recall any message as against 20% and 28% respectively in 2005. It is to be mentioned that among the 18% who could not recall any messages constitutes 68% general villagers and rest 32% are project participants.

Figure-3: MACH messages recalled by the respondents (2005 and 2006) in percent



The most common messages that the respondents could recalled were:

- Establish sanctuary, ensure the habitat of fishes
- Stop using current net, save the lineage of fish
- Stop hunting birds
- Increase supplementary income, reduce pressure on fishing
- Plantation in cannel side, let protect beel sedimentation
- Shall not drain out all beels, shall not catch all fish

However, site wise distribution of 82% (259) respondents according to the messages recalled is presented below.

Table 8.1: Response percent of messages recalled by the respondents

Types of messages	MACH Project			Total	
	Site			No.	%
	HH	KM	TB		
Shall not catch spawn fish	83	79	83	259	82
Stop hunting birds, save all varieties	63	67	54	193	62
Plantation in cannel side, let protect beel sedimentation	54	21	17	96	31
Shall not catch brood fish, shall not break the law	50	46	33	136	43
Stop using current net, save the lineage of fish	33	33	29	100	32
Establish sanctuary, ensure the habitat of fishes	29	25	0	57	18
Shall not drain out all beels, shall not catch all fish	25	13	0	39	13
Group organize, live by alternative income	21	50	25	100	32
Increase alternative income for reduce pressure on fishing	1	46	21	87	28
Haor, beel, wetlands and fish are our gold mines	13	0	17	30	10
Management of sanctuary, increase fish increase income	13	13	13	39	13
Catch no fish in Chittra, Baishak and Jaishta, a happy life follow for twelve months	8	17	8	35	12
Cultivate fish & happy live 12 months	8	8	8	26	9

5.5 Awareness about MACH objectives

MACH has an overall program goal and three specific project objectives. Awareness level of three specific objectives was averaged to get the awareness level of overall MACH objective. There has been observed a progressive increase of awareness level by site and project participants' type. For the general villagers, it remained statistic while for the project participants, the awareness level about overall MACH objective has increased by 31% from 2005. It is also notable that in Likert scale, the current awareness level was found to be 2.60 in a 5 point scale in compare to 1.98 in the follow-up of 2005 for the project participants. It is climbing towards to the above average level (2.60) for the project participants. Following table gives a detail of the change of awareness level on MACH objectives.

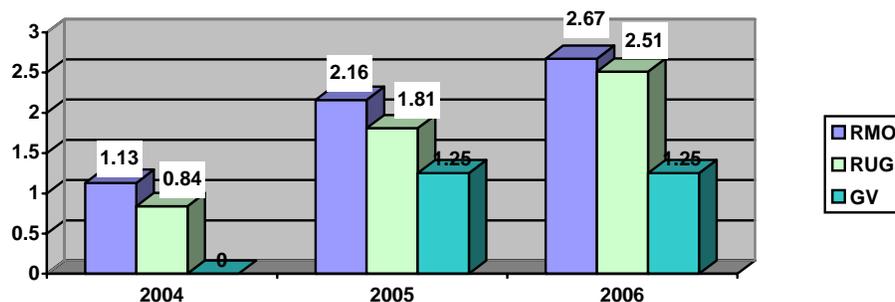
Table-9.1: Awareness about MACH overall objectives (baseline, follow-up and endline)

Site	RMO Member				RUG Member				Total Project participants				For General Villagers	
	2004	2005	2006	Change	2004	2005	2006	Change	2004	2005	2006	Change	2005	2006
HH	1.41	2.17	2.73	25.80	.90	1.96	2.55	30.10	1.16	2.06	2.65	28.64	1.16	1.18
KM	0.97	2.20	2.64	20	.74	1.65	2.34	41.81	0.86	1.92	2.52	31.25	1.24	1.25
TB	1.00	2.10	2.65	26.19	.89	1.82	2.63	44.50	1.41	1.96	2.64	34.69	1.34	1.32
Total	1.13	2.16	2.67	23.60	.84	1.81	2.51	38.12	1.14	1.98	2.60	31.31	1.25	1.25

Scale interpretation of objective level responses: 0 = Not at all, 1 = Very Little, 2 = Average, 3 = High, 4= Very High

The graph below provides a visual look of progressive trend of awareness status by year and type of respondents. In 2004, classified data for general villagers was not collected or not available to the study team. Interestingly, awareness level of general villagers remained unchanged since 2005. The rate of progression was recorded higher in 2005 survey than the current assessment for all three types of respondents.

Figure-4: Awareness about MACH overall objective by year and respondents' type



This time RUG member's awareness level has shown the highest increase (38.12%) than RMO members. But in the likert scale RUG members (2.51) are still behind the RMO members (2.67).

Table-9.2: Change in Awareness about MACH objectives – RMO & RUG members

Score	Percent of Responses - RMO Members						Percent of Responses - RUG Members					
	Objective - 1		Objective - 2		Objective - 3		Objective - 1		Objective - 2		Objective - 3	
	Survey 2005	Survey 2006	Survey 2005	Survey 2006	Survey 2005	Survey 2006	Survey 2005	Survey 2006	Survey 2005	Survey 2006	Survey 2005	Survey 2006
Very High (4)	0.00	5.9	0.00	8.1	4.70	5.9	0.00	5.6	0.00	4.4	4.97	6.7
High (3)	34.67	60.7	40.27	55.6	44.97	57.8	26.92	43.3	32.60	44.4	41.99	50.0
Average (2)	41.33	31.9	47.65	35.6	32.21	31.9	45.05	48.9	52.49	44.4	30.94	41.1
Very Little (1)	13.33	.7	4.70	.7	2.01	.7	14.84	1.1	7.73	2.2	3.87	1.1
Not at All (0)	10.67	.7	7.38	.0	16.11	3.7	13.19	1.1	7.18	4.4	18.23	1.1
Total	100	100	100	100	100	100	100	100	100	100	100	100

While looking at the individual score level comparison between assessment findings 2005 and 6, a significant progress of awareness level has been observed for RMO and RUG members about all the project objectives. The above table shows an increasing trend towards score level 3 and 4, and in most cases decreasing trend from score level 2 to 0 during 2005 survey.

Project objective wise awareness level comparison shows an improvement of awareness level across all three objectives for both RMO members and RUG members. In the 2005 survey, relative awareness on objective-1 had been the lowest for both RMO and RUG. In Following table gives a detail analysis of change of awareness level for each of the three project objectives for RMO as well as RUG members.

Table-10: Objective wise change in awareness level of RMO and RUG members

Specific Objective	RMO (EC & GB) member				RUG member			
	Baseline 2004	Follow-up 2005	End line	Change %	Baseline 2004	Follow-up 2005	End line	Change %
Objective - 1	0.69	2.04	2.7	32.35	0.32	1.64	2.51	53.04
Objective - 2	1.42	2.28	2.71	18.85	0.98	1.83	2.42	32.24
Objective - 3	1.28	2.18	2.61	19.72	1.11	1.97	2.60	31.97

There has been a progressive increment of awareness level among the project participants for all the three specific objectives. For each of the objectives paired t-test confirmed the significant improvement at 95% confidence interval.

Objective-1: Raise awareness about the importance of natural flood plain resources to secure food and income security;
Objective-2: Maintain and recover the selected natural flood plain ecosystems and associated fisheries;
Objective-3: Identify activities to generate alternative income that result in a reduction of pressure from fishing and agriculture.

The study also looked the implication of educational level on awareness on MACH objectives. The data clearly shows a co-relation between educational level and awareness level. That is to say, higher level of educational attainment leads to higher degree of awareness level. Following table describes the relation between educational background of the respondents and level of awareness in various project objectives.

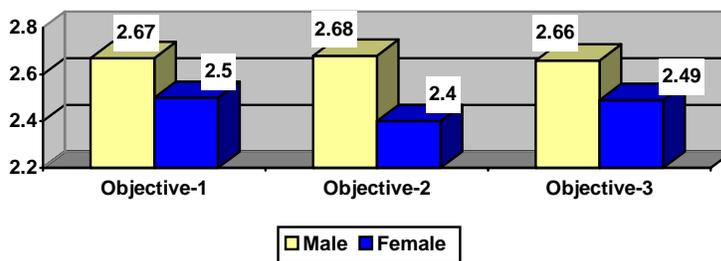
Table-11: Education level and objective awareness of the respondents (n=315)

Level of Education	Objective - 1	Objective - 2	Objective - 3	Total
Illiterate / Can sign only	2.54	2.48	2.5	2.46
Primary Level	2.62	2.49	2.5	2.53
Secondary Level	2.65	2.78	2.7	2.71
Higher secondary & above Level	3.00	2.75	2.8	2.85
Total	2.62	2.60	2.6	2.63

In most cases, data is presented in averages (arithmetic mean). Calculations are limited to two decimal points only. Therefore, there might be negligible difference of figures after decimal point two from table to table.

The above table clearly shows that illiterate people had the lowest level of awareness. In contrast people with higher secondary and above level of education had been the most aware people among the respondents. The same trend had also been observed in 2005 assessment but in 2006 level of awareness has increased at all education levels.

Figure-5: Objective wise awareness by Gender



The current level of awareness about MACH objectives show that male has fairly better level of awareness than those of female. The situation in 2005 was just reverse. However, underlying reason could be proportionately male are more involved in MACH project than female. Male participants are more exposed to communication and RMO/RUG activities at a regular basis.

5.6 Awareness about MACH management approach

MACH has established a community based management approach to manage the wetland and natural resources. RMO and RUG are two formal structures that the project has installed at the community level. Both of the structures have specific institutional framework and operating mechanism to function effectively. This study tried to look at the awareness level of the respondents on RMO and RUG approach. RMO members and RUG members were asked different questions relevant to them to assess the level of awareness. That is to say, RMO members were asked about the RMO approach and also some questions about RUG and the RUG members were asked about the RUG approach and some knowledge question of RMOs of his/her area and also about FRUG.

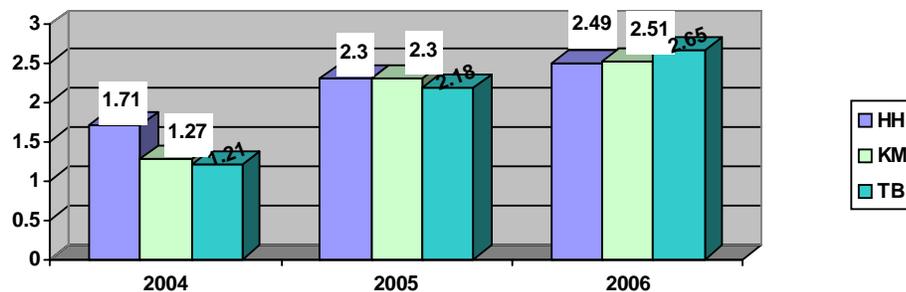
5.6.1 Awareness level of RMO members

Awareness level of RMO members regarding RMO approach including formation, management and responsibilities were measured in the assessment survey of 2006 and compared the data with the survey of 2005. The comparative analysis of overall awareness level reveals that RMO members' awareness have increased from 2.26 to 2.55, an increase of about 13%. It should be mentioned here that the level was recorded only 1.24 in 2004 baseline survey. An increase of 62% from 2004 to 2005 and increase rate 13% from 2005 to 2006. RMO member's awareness level had risen to above average level from below average level from 2004. Site-wise disaggregated data shows that improvement in the awareness level had been most prominent in the TB site where the awareness score has increased by 22% followed by 9% and 8% in the KM and HH site respectively. Awareness level in TB site was found to be the highest.

Table-12: Awareness of RMO members about management area/approach

Awareness Area	HH (Average Score)			KM (Average Score)			TB (Average Score)			Total Average		
	2005	2006	Change %	2005	2006	Change %	2005	2006	Change %	2005	2006	Change %
Formation of RMO and its Bye laws	2.27	2.51	10.57	2.29	2.48	4.80	2.16	2.71	25	2.24	2.57	11.60
Management of RMO	2.36	2.38	.84	2.29	2.55	9.17	2.29	2.60	13.53	2.31	2.51	8.22
Roles and Responsibilities of members	2.42	2.49	2.90	2.36	2.45	1.69	2.16	2.71	25	2.31	2.55	8.22
Activities of RUG	2.16	2.59	15.74	2.24	2.55	11.60	2.11	2.60	23.22	2.17	2.58	15.20
Total	2.30	2.49	8.26	2.3	2.51	9.13	2.18	2.65	21.55	2.26	2.55	12.83

Figure-6: Awareness of RMO members about overall management approach by year and site

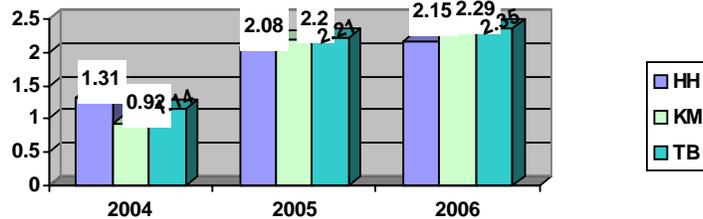


The above chart depicts a visual understanding of year wise progression of RMO's awareness level about different aspects of RMO itself. Site wise situation appears to be similar although there has been found a slight advancement in TB site. The rate of progression was recorded higher in 2005 than the current year.

5.6.2 Awareness level of RUG members

RUG member's awareness about RUG formation and management, its activities and RMO were measured in the current survey and compared those with the 2005 and baseline. Additional questions were also asked in the 2005 and 2006 surveys to the RUG members on RMO and FRGU where no baseline data was available to compare. However, these questions have developed a set of data that can be compared in any future comparison.

Figure-7: Awareness of RUG members about overall management approach by year and site



The comparative analysis between the baseline, follow up and the current assessment regarding RUG members' awareness on RUG approach shows that RUG members now have improved level of understating about their organization. However, the rate of increase in 2006 in awareness level is not very significant for last one year as compared to the increase had recorded in 2005. In 2004, the awareness level was below average; it has increased to average level in 2005 and since then there has not been observed any remarkable change. RUG members' awareness was found to be highest in the TB site followed by KM site in 2006. Table below provides details of RUG members' awareness on their own organization.

Table-13: Awareness of RUG members about MACH management (survey 2005 and 2006)

Awareness Areas	HH (Average Score)			KM (Average Score)			TB (Average Score)			Total Average			
	2005	2006	Change %	2005	2006	Change %	2005	2006	Change %	2005	2006	Change %	
2004 data collected on these areas only	Activities of RUG	2.35	2.41	0.21	2.41	2.47	2.91	2.52	2.77	9.92	2.42	2.54	5.08
	Formation and management of RUG	2.25	2.3	0.22	2.14	2.33	8.87	2.43	2.6	6.99	2.27	2.41	6.01
	Objectives of RMO formation	1.64	1.8	0.97	2.05	2.08	1.46	1.69	1.7	0.59	1.79	1.86	3.71
	Sub-Total Average:	2.08	2.16	3.84	2.2	2.29	4.24	2.21	2.35	6.63	2.16	2.27	5.03
Collected in 2005 and 2006 only	Knowledge on RMO name	2.23	2.45	9.86	1.81	1.98	9.39	1.72	1.88	9.30	1.92	2.17	13.36
	FRUG formation & management	1.59	1.71	7.54	1.02	1.8	76.47	1.57	2.1	33.75	1.39	1.76	26.55
	Activities of FRUG	1.51	1.89	25.16	1.07	1.5	40.18	1.45	1.78	22.75	1.34	1.77	31.76
Total Average	1.93	2.01	4.49	1.75	1.76	0.57	1.9	1.92	1.05	1.55	1.90	22.61	

Scale interpretation: 0 = Not at all, 1 = Very Little, 2 = Average, 3 = High, 4= Very High

The respondent for the current section (5.6.2) was RUG member only. The value level of the bar chart (Figure-7) included data for the year 2004 but not presented in the table. The Table –13 is segregated to draw Figure 7 so that year wise comparison (2004, 2005 and 2006) is visibly expressed. In the year 2004, RUG members were asked to respond only on three areas – activities of RUG, formation and management of RUG and objective of RMO formation. In order to generate compatible data for analysis, the table 13 has been fragmented. However, while looking at the overall situation (all six areas), an increase of 22.61 % was observed in 2006 compared to 2005 for RUG members on the specified management areas of MACH.

6 Awareness and Effectiveness of MACH communication interventions

MACH project had introduced a range of communication interventions at various levels to raise awareness on conservation and sustainable management of wetlands. It has also included few activities in its communication strategy since the last assessment. They are mostly implemented by RMO. The new basket includes exposure/exchange visit of project participants from one site to another, RMO gathering/workshop etc in addition to the previous communication interventions. The previously introduced communication interventions include MACH introductory program at community, union, and Upazilla levels, courtyard meetings and community level campaign to disseminate various wetland and environmental messages. Community level campaign included live drama, folk song, miking, video show. Besides, MACH also took various programs to disseminate wetland and environmental related information to a wider audience through important day observation, school program, rally, and TV program. MACH project also used different communication materials like posters, signboard, leaflets, and so on to have an impact on the wider audience.

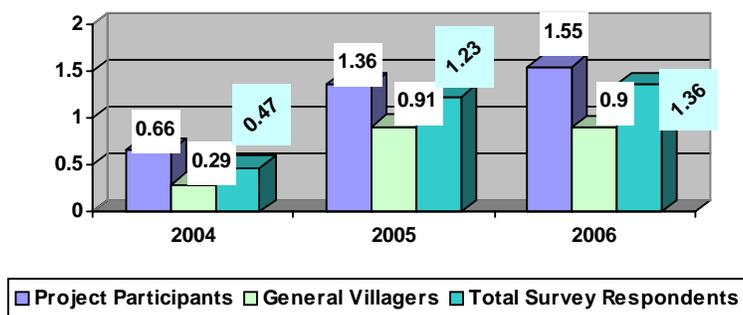
This current assessment survey tried to look at the impact of these communication interventions on the community people while comparing their awareness level with baseline and follow-up surveys conducted in 2004 and 2005 respectively. The impact of communication was expected to be on two levels –awareness and effectiveness. Awareness deals with the level of understanding of the communication interventions and messages disseminated. On the other hand, effectiveness deals with the appropriateness of the intervention to influence behavioural changes of the respondents. The study has used 5-point Likert scale to measure the awareness and effectiveness of MACH communication interventions.

Awareness: 0 = Not at all (no knowledge of activity); 1 = Very little (heard about it); 2 = Average (someone in household saw/attended but don't know/forgot any messages), 3 = High (participated/saw and remember something), 4=Very High (attended/saw and remember messages)

6.1 Awareness level of MACH activities:

A large part of the communication activities of MACH was targeted to the project participants i.e. RMO and RUG members. Besides some communication activities had also reach to the general villagers. Some communication also reached to the general villagers through RMO and RUG activities and its members.

Figure-8: Overall awareness about MACH communication interventions by respondent type



The current assessment shows general improvements but not as significant in 2005 when a sharp growth was recorded of awareness level of MACH communication activities across the board. This time, only the project participants shows a significant growth even their level is still below average. In the baseline, overall awareness level among the project participants was very low (only .66) which had increased to 1.36 during 2005 and this time reached to only 1.55. Similarly, awareness level among the general villagers was almost non-existent (.29) which had enhanced to .91 during follow-up and since then remained unchanged - meaning that they still had very little awareness about MACH communication activities.

In the baseline, overall awareness level among the community people who include both project participants and general villagers were almost non-existent (only .47) which had increased to 1.23 during follow-up – recording significant improvement (160%) and since then only increased to 1.36 at an improvement rate of 10.56%. TB site appears to have recorded (33%) the highest level of achievement than other two sites. Site wise status of awareness level has been presented in the following table.

Table-14: Overall awareness about MACH communication interventions

Site	Project Participants			General Villager			Total Average		
	2005	2006	Change %	2005	2006	Change %	2005	2006	Change %
HH	1.44	1.55	7.63	0.94	0.85	0.94	1.3	1.35	3.84
KM	1.44	1.46	1.38	0.99	0.93	0.99	1.31	1.30	-0.76
TB	1.19	1.65	38.65	0.8	0.93	0.8	1.08	1.44	33.33
Average	1.36	1.55	13.97	0.91	0.90	0.91	1.23	1.36	10.56

The study team has conducted a statistical significant test (T-test) to validate whether there is any significance difference between the mean of project participants and general villagers. p value is found close to zero at 95% confidence level meaning a significant difference between increase of awareness level between project participants and general villagers.

The table below provides current awareness status of the respondents about communication interventions compared to 2005 survey result at the overall level. Baseline data in such classified form was not available, the study team could not make straight comparison with the follow-up surveys.

It is evident from the table 14.1 that a good proportion of respondents rated very high category in 2006 (26%) than 2005 (21%). An increase of about 20 %, and they mainly moved to very high category from average level. However “not at all” level remained almost unchanged.

Table: 14.1 Current Awareness level of the respondents on communication interventions

MACH Communication Intervention	Average Awareness Score under Different Site							
	Very High (4)- High (3)	%	Average (2)- Very little (1)	%	Not at all (0)	%	Total	%
1. Courtyard Meeting	213	67.6	97	30.8	5	1.6	315	100
2. Community Level Meeting	96	30.5	160	50.8	59	18.7	315	100
3. MACH Project Introductory Meeting	96	30.5	145	46.0	74	23.5	315	100
4. Briefing Session for Different Stakeholders	63	20.0	137	43.5	115	36.5	315	100
5. Important Day Observance	119	37.8	153	48.6	43	13.7	315	100
6. Rally	157	49.8	128	40.6	30	9.5	315	100
7. Environment Education in School	21	6.7	80	25.4	214	67.9	315	100
8. Live Drama	138	43.8	126	40.0	51	16.2	315	100
9. Folk song	92	29.2	134	42.5	89	28.3	315	100
10. Miking	195	61.9	106	33.7	14	4.4	315	100
11. Drawing Competition	9	2.9	36	11.4	270	85.7	315	100
12. Quiz competition	4	1.3	21	6.7	290	92.1	315	100
13. Essay Competition	4	1.3	25	7.9	286	90.8	315	100
14. TV Program	33	10.5	102	32.4	180	57.1	315	100
15. Video show on Wetland Resources	73	23.2	89	28.3	153	48.6	315	100
16. Fair/Exhibition	54	17.1	107	34.0	154	48.9	315	100
17. MACH Workshop	44	14.0	74	23.5	197	62.5	315	100
18. Visits to other sites & networking	52	16.5	60	19.0	203	64.4	315	100
19. RMO petition / gathering	83	26.4	81	25.8	150	47.8	315	100
Overall-2006	81	25.84	98	31.1	135	43.06	315	100
Overall -2005	65	20.64	117	37.14	133	42.22	315	100

6.2 Effectiveness of MACH communication activities:

Respondents expressed their view on the effectiveness of MACH communication activities. While the effectiveness of various communication activities differs quite significantly, the overall effectiveness of MACH communication activities was rated quite low (1.36) by the respondents in the current survey. Although there has been found an increase of about 26% from last year assessment.

Table-15: Effectiveness of MACH communication interventions by site and respondent type

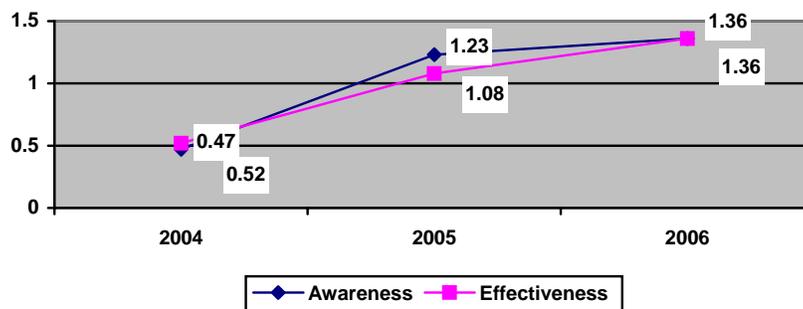
Site	Project Participants			General Villager			Total Average		
	2005	2006	Change %	2005	2006	Change %	2005	2006	Change %
HH	1.28	1.55	21.09	0.81	0.84	3.70	1.15	1.35	17.39
KM	1.31	1.46	11.45	0.86	0.92	6.97	1.18	1.3	10.16
TB	1.01	1.65	63.36	0.62	0.93	50	0.9	1.44	60
Total Average	1.2	1.55	29.44	0.76	0.89	17.98	1.08	1.36	26.23

The above table shows that the project participants had perceived higher level of effectiveness of communication activities than the general villagers. All three sites experienced improvements and among the sites, TB site picture better than other two sites. Following section provides the details for RMO members, RUG members and general villagers both in awareness and effectiveness categories.

Effectiveness uses 5-point ladder scale from 0 not at all effective/couldn't understand, to 4 highly effective – changed my opinions. Scoring will not be applicable for the respondents who score zero (0) on awareness about the above communication activities of MACH project.

Co-Relationship between awareness and effectiveness: The study team has conducted statistical significant test between awareness and effectiveness in all communication interventions. p values for these tests were found near to 0 at 95% confidence level. Therefore, it can be confidently said that there is a strong co-relation exists between awareness and effectiveness. This means higher the awareness higher the effectiveness.

Figure-9: Picture shows change in overall awareness and effectiveness of communication interventions by year



6.3 Awareness and effectiveness of MACH communication Activities –RMO

RMO members had participated in various communication activities. They were asked to express their views awareness and effectiveness of the activities they had either participated or aware. In the baseline, overall awareness of communication activities very little (.85) which in the follow up (2005) survey had increased to 1.44 and in the current assessment of 2006, it has further improved to 1.71 close to average score. Increase of about 20% in last one year. As far as effectiveness is concerned, an improvement could be noticed from .9 in the baseline to 1.28 in the follow up 2005 and in the current survey, it has increase to 1.45 but still remains at below average level. The improvement rate in the awareness is more than the improvement in the effectiveness. Following table provides a comparative analysis between the baseline and the follow up with particular reference to the various communication intervention strategies.

Table-15.1: Awareness and effectiveness - MACH communication Activities –RMO members

Interventions	Awareness			Effectiveness		
	2005	2006	Increase %	2005	2006	Increase %
1. Courtyard Meeting	2.81	2.99	6.40	2.58	2.66	3.10
2. Community Level Meeting	2.27	2.41	6.16	1.99	2.01	1.00
3. MACH Project Introductory Meeting	1.93	2.43	25.90	1.7	1.98	16.47
4. Briefing Session for Different Stakeholders	1.16	1.81	56.03	1.01	1.51	49.50
5. Important Day Observance	2	2.52	26	1.76	2.16	22.72
6. Rally	2.41	2.75	14.10	2.13	2.41	13.14
7. Environment Education in School	1.15	0.76	-33.91	1.03	0.61	-40.77
8. Live Drama	2.34	2.3	-1.70	2.13	2.07	-2.81
9. Folk song	0.56	1.7	203.57	0.47	1.34	185.10
10. Miking	2.74	2.81	2.55	2.44	2.5	2.45
11. Drawing Competition	0.15	0.36	140	0.12	0.24	100
12. Quiz competition	0.36	0.3	-16.66	0.33	0.23	-30.30
13. Essay Competition	0.07	0.27	285.71	0.07	0.19	171.42
14. TV Program	1.39	1.01	-27.33	1.19	0.89	-25.21
15. Video show on Wetland Resources	0.87	1.57	80.45	0.79	1.36	72.15
16. Fair/Exhibition	0.79	1.38	74.68	0.7	1.16	65.71
17. MACH Workshop	-	1.3	13	-	1.03	103
18. Visits to other sites & networking	-	1.46	146	-	1.22	122
19. RMO petition / gathering	-	2.47	247	-	2.07	207
Total (Average)	1.44	1.71	19.35	1.28	1.45	13.65

Comparative analysis of the above table shows that RMO members had developed significant awareness in folksong, essay competition, briefing session and Fair/Exhibition. Their awareness level had improved to the above or average level which was below average in the baseline. RMO members shared various issues and themes they had learnt from these interventions. Improvements on awareness could be seen in other communication intervention as well though actual score in not very significant.

As far as the effectiveness of various interventions was concerned, folksong, essay competition, briefing session and Fair/Exhibition were found relatively effective among all the communication interventions to the RMO members. Besides, rally and community level meetings were seen to be somewhat effective among the RMO members. Awareness and effectiveness score has decreased in some cases mainly these activities were not took place in recent times. Score has not been recorded very high even in RMO led communication activities. Only RMO gathering is recognized at average level for both awareness and effectiveness.

6.4 Awareness and effectiveness of MACH communication Activities –RUG members

RUG had also participated in various communication activities. They were asked to express their views awareness and effectiveness of the activities they had either participated or became aware of. Overall awareness and effectiveness of communication activities of RUG members has not increased very significantly (1.62% and 1.83%) from the assessment of 2005. In some of the interventions, like introductory meeting, live drama and TV program, have shown decreasing trend since 2005. One reason could be introductory meetings, TV programs and live dramas are not held frequently in last one year. Courtyard meetings, day observance, miking have been recognized by the RUG members and opined that those are also very effective. Following table provides a comparative analysis between the assessments of 2005 and 2006 with particular reference to the various communication intervention strategies.

Table-16: Awareness and effectiveness of MACH communication Activities –RUG members

Interventions	Awareness			Effectiveness		
	2005	2006	Increase %	2005	2006	Increase %
1. Courtyard Meeting	2.59	2.80	8.10	2.26	2.34	3.73
2. Community Level Meeting	1.77	1.80	1.69	1.51	1.34	-10.96
3. MACH Project Introductory Meeting	1.57	1.34	-14.64	1.4	1.2	-14.28
4. Briefing Session for Different Stakeholders	0.96	1.50	56.25	0.83	1.01	21.82
5. Important Day Observance	1.62	1.91	17.9	1.47	1.74	18.66
6. Rally	2.14	2.22	3.73	1.96	2.07	6.00
7. Environment Education in School – messages	0.79	1.97	149.3	0.7	0.34	-50.79
8. Live Drama	2.34	.54	-76.92	2.04	1.744	-14.48
9. Folk song	0.6	2.10	250	0.49	1.26	158.50
10. Miking	2.42	2.64	9.0	2.09	2.18	4.73
11. Drawing Competition	0.11	.22	100	0.1	1.26	1166.66
12. Quiz competition	0.33	.03	-90.90	0.29	0.03	-88.50
13. Essay Competition	0.08	.08	0	0.06	0.05	-7.40
14. TV Program	1.08	.86	-20.37	1.02	0.65	-35.72
15. Video show on Wetland Resources	0.66	.76	15.1	0.64	0.98	54.51
16. Fair/Exhibition	0.74	.76	2.7	0.63	0.95	51.67
17. MACH Workshop		.87	87	-	0.67	67
18. Visits to other sites & networking		.74	74	-	0.63	63
19. RMO petition / gathering		.83	83	-	0.74	74
Total (Average)	1.23	1.25	1.62	1.09	1.11	1.83

RUG members' awareness level improved slightly for miking, rallies and courtyard meeting but still at the level of average. However, in the event of folk song it has improved to near to the above average level, which was very little in 2005. RUG members shared various messages and issues they had learnt from these interventions. Improvements on awareness could be seen in other communication intervention as well though actual score is not that significant.

Regarding the effectiveness of various communication interventions, fair exhibition, folksong and video show were the most effective among all the communication interventions to RUG members. RMO led communication interventions are relatively new and awareness and effectiveness of them still remained at very little level.

6.5 Awareness and effectiveness of MACH communication Activities –Gen. Villagers

General villagers had participated some of the community based communication activities such as live drama, folk song, rally etc. They were asked to express their views awareness and effectiveness of the activities they had either participated or seen or heard from others. They are also observer of various MACH activities. Following table provides a comparative analysis between the baseline and the follow up.

Table-17: Awareness and effectiveness of MACH communication Activities –GV

Interventions	Awareness			Effectiveness		
	2005	2006	Increase %	2005	2006	Increase %
1. Courtyard Meeting	1.99	2.21	0.50	1.60	1.69	5.62
2. Community Level Meeting	1.24	1.13	-19.35	1.10	.90	-18.18
3. MACH Project Introductory Meeting	1.08	1.2	-7.40	0.96	1.02	6.25
4. Briefing Session for Different Stakeholders	0.6	0.93	66.66	0.49	.80	63.26
5. Important Day Observance	0.93	1.33	7.52	0.83	.99	19.27
6. Rally	1.33	1.54	50.37	1.13	1.17	3.53
7. Environment Education in School	0.41	0.48	-100	0.39	.43	10.25
8. Live Drama	2.17	1.83	-7.83	1.73	1.37	-20.80
9. Folk song	0.53	1.68	277.35	0.37	1.24	235.13
10. Miking	2.23	2.22	-10.31	1.87	1.79	-4.27
11. Drawing Competition	0.06	0.17	-100	0.06	.11	83.33
12. Quiz competition	0.09	0.04	-100	0.09	.08	-11.11
13. Essay Competition	0.01	0.1	-100	0.01	.12	1100
14. TV Program	1.1	0.93	-9.09	0.97	.66	-31.95
15. Video show on Wetland Resources	0.36	0.58	177.77	0.33	.44	33.3
16. Fair/Exhibition	0.4	0.53	150	0.32	.37	15.62
17. MACH Workshop	-	0.23	0	-	.13	13
18. Visits to other sites & networking	-	0.15	0	-	.10	10
19. RMO petition / gathering	-	0.14	0	-	.12	12
Total (Average)	0.91	0.92	1.09	0.77	0.71	-7.79

Comparative analysis reveals that general villagers overall awareness level of MACH communication interventions remained very low, although little improvement is noticed from 2005 survey. However, courtyard meeting, miking, rally, live drama are close to average level of awareness. On the issue of communication effectiveness, miking and courtyard meeting were found to be most effective among all, though the level of effectiveness was rated only close to

average. Effectiveness of most of the other interventions was rated very low. Awareness and effectiveness of RMO led interventions were found very low.

6.6 Communication interventions and Respondents' Social Factors

The consultant team had made an attempt to see the current awareness level based on various attributes of the respondents including educational status, gender and occupation. Some interesting information has come out in the analysis, which might have policy implication in future communication strategies.

Educational level and awareness: The study found that there is a strong correlation exists between educational attainment and the awareness level. This relationship holds true across all three-project sites. Illiterate people are very little aware about MACH communication activities. On the other hand, people with secondary and above level of education have average level of awareness of communication and messages. Following table gives the details.

Table-18: Awareness on MACH Communication interventions by education level (n=315)

Education Level	HH	KM	TB	Total
Illiterate/ Can sign only	1.21	1.2	1.15	1.18
Primary Level	1.33	1.2	1.39	1.30
Secondary Level	1.52	1.52	1.51	1.52
Higher Secondary & above	1.84	2.44	2	2.09
Total	1.47	1.59	1.51	1.52

Gender and Awareness level: The study team also looked if gender has any implication on level of awareness. The data from the surveys (2005 and 2006) show that gender has bearing on the level of awareness as well as effectiveness. Male respondent had higher level of awareness than the female respondents. Likewise, male respondent found the MACH communication activities more effective than the female respondents. However, the difference was not very significant as both male and female still had very little awareness on the MACH communication interventions and its effectiveness.

Table-19: Awareness and effectiveness of MACH communication interventions by gender

Site	Male			Female			Overall		
	2005	2006	Change %	2005	2006	Change %	2005	2006	Change %
HH	1.34	1.40	4.47	1.21	1.24	2.47	1.27	1.32	3.93
KM	1.36	1.38	1.47	1.19	1.16	-2.52	1.27	1.27	0
TB	1.23	1.50	21.95	1.12	1.31	16.96	1.17	1.40	19.65
Overall	1.31	1.42	8.39	1.17	1.23	5.12	1.23	1.33	8.13

Table-19.1: Effectiveness of MACH communication interventions by gender

Site	Male			Female			Overall		
	2005	2006	Change %	2005	2006	Change %	2005	2006	Change %
HH	1.2	1.17	-2.5	1.02	0.97	-4.90	1.11	1.07	-3.60
KM	1.29	1.15	-10.85	0.93	0.94	1.07	1.11	1.04	-6.30
TB	0.92	1.26	36.95	0.87	1.04	19.54	0.89	1.15	29.21
Overall	1.14	1.19	4.38	0.94	0.98	4.25	1.03	1.08	4.85

The study team also looked at the occupation background of the respondents to find out their awareness level specifically the awareness level of fishermen and others. No significant difference was found between the fishermen and respondent from other occupation regarding MACH communication interventions.

7 Awareness and Effectiveness of MACH communication Materials

MACH used different communication materials to disseminate MACH awareness development messages to accomplish the project objectives. MACH communication materials mainly included posters, signboards, booklets, handbills and other educational materials on wetland resources. During last one year MACH has introduced few new items in the material basket. They were MACH bag, Newsletter, Leaflet, Book/Brochure and RMO published materials. MACH communication materials had been a part of its communication strategy and complement and supplement its communication activities at various levels.

This assessment survey tried to look on the impact of this communication material on RMO and RUG members as well as on the general villagers. Like the communication interventions, the impact of communication material was expected to be on two levels –awareness and effectiveness. Awareness deals with the level of understanding of the messages disseminated. On the other hand, effectiveness deals with the appropriateness/usefulness of the communication materials to disseminate the message. The study has used 5-point Likert scale to measure the awareness and effectiveness of MACH communication interventions.

Awareness level of MACH Materials: A large part of the communication material of MACH was targeted to the project participants i.e. RMO and RUG members and the general villagers. Some communication materials also reached to the general villagers through RMO and RUG activities. The current assessment shows that a significant improvement in awareness has achieved in last one year also (62%). In the baseline the awareness level was very poor, only .28, which had increased to .84 in the follow up of 2005, and has further improved to 1.36. This data shows that the current awareness level on various MACH communication materials still remains below average. In the baseline, awareness level among the project participants was very low (only .35) which had increased to .92 in 2005, and has further moved to average level. Similarly, awareness level among the general villagers was almost non-existent (.2) in the baseline conducted in 2004, which had enhanced to .66 in 2005 and has further increased to .89 in 2006. However, they still had very little awareness about MACH communication materials.

TB site (similar to communication interventions) achieved the highest level of achievement in the awareness development but still with a very low awareness score. Site wise status of awareness level has been described in the following table.

Table-20: Table: Awareness about MACH Communication Materials

Site	Project Participants			General Villager			Total Average		
	2005	2006	Change %	2005	2006	Change %	2005	2006	Change %
HH	0.98	1.55	58.16	0.7	0.84	20	0.9	1.35	50
KM	0.92	1.46	58.69	0.66	0.92	39.39	0.84	1.3	54.76
TB	0.86	1.65	91.86	0.63	0.93	47.61	0.79	1.44	82.27
Total Average	0.92	1.55	68.47	0.66	0.89	34.84	0.84	1.36	61.90

Effectiveness of MACH communication materials: Respondents expressed their views on the effectiveness of various communication materials MACH used for awareness building. While the

effectiveness of various communication materials differs quite significantly, the overall effectiveness of MACH communication materials was rated quite low (1.12) by the respondents in the follow up survey. There had been no baseline data for the general villagers, as these data were not collected in the baseline. Comparison for the project participants does show a sign of improvement in the effectiveness of communication materials used by MACH project. Even after some improvement, current effectiveness rating continues to be very low. Following table gives the detail site wise effectiveness statistics.

Table-21: Effectiveness of MACH Communication Materials

Project Site	Project Participants (Av. Score)			General Villager (Av. Score)			Total Average		
	2005	2006	Change %	2005	2006	Change %	2005	2006	Change %*
HH	0.83	1.28	54.21	0.6	0.7	16.66	0.76	1.11	46.05
KM	0.83	1.2	44.57	0.53	0.77	45.28	0.74	1.07	44.59
TB	0.72	1.4	94.44	0.46	0.66	43.47	0.64	1.19	85.93
Total Average	0.79	1.29	63.29	0.53	0.71	33.96	0.71	1.12	57.74

Co-Relationship between awareness and effectiveness: The study team has conducted statistical significant test between awareness and effectiveness of all the communication materials used. p values for these tests were found near to 0 at 95% confidence level. This means, there is a strong co-relation exists between the awareness and effectiveness. In other words, higher the awareness levels of the respondents higher the effectiveness of the materials.

The table below provides current awareness status of the respondents about communication materials. As baseline data in such classified form was not available, the study team could not make straight comparison with the follow-up survey. Majority of the respondents rated very high only for signboards. 36% rated high for Education materials and messages. Respondents are seemingly unaware about the majority of the materials.

Table: 21.1 Current Awareness level of the respondents (n=315) on communication materials

MACH Communication Materials	Average Awareness Score						Total	%
	Very High (4)- High (3)	%	Average (2)- Very little (1)	%	Not at all (0)	%		
1. Posters (4 types)	147	46.7	167	53.0	1	.3	315	100
2. Folders (2 types)	20	6.3	69	21.9	226	71.7	315	100
3. Booklet	10	3.2	37	11.7	268	85.1	315	100
4. Coat Pin	18	5.7	43	13.7	254	80.6	315	100
5. T-shirt	84	26.7	170	54.0	61	19.4	315	100
6. Signboards (4 types)	114	36.2	114	36.2	87	27.6	315	100
7.MACH Documentary (Bangla)	51	16.2	59	18.7	205	65.1	315	100
8. Handbills (3 types)	19	6.0	79	25.1	217	68.9	315	100
9. MACH Cap	94	29.8	154	48.9	67	21.3	315	100
10. Wall Painting	46	14.6	99	31.4	170	54.0	315	100
11. Education Materials (Wetland Messages)	158	50.2	85	27.0	72	22.9	315	100
12. MACH Bag	43	13.7	109	34.6	163	51.7	315	100
13. Newsletters	16	5.1	32	10.2	267	84.8	315	100
14. Leaflets (6 types)	34	10.8	71	22.5	210	66.7	315	100
15. RMO produced leaflets, books & others	49	15.3	75	23.9	191	60.8	315	100
Total	60.2	19.10	90.86	28.85	163.93	52.06	315	100

7.1 Awareness and effectiveness on communication materials – RMO members

The communication materials used by the MACH project reached to the RMO members in various way such as training, discussion meetings, grass roots campaign etc. Some of the materials were in the public domain like posters, signboard where RMO members had equal exposure. Based on the exposure and its impact, RMO members were asked to reflect on the communication materials used in MACH project over the period. Their responses were categorized in terms of awareness and effectiveness and compared with the surveys of 2005 and 2006 to see if any comparative improvement was achieved. The study team also looked at the situation of 2004 while comparing data of 2005 and 2006. It was observed that the increase rate of overall awareness and effectiveness of communication materials for RMO members was higher (awareness 97% and effectiveness 69%) in 2005 (compared to 2004) than 2006 (compared to 2005).

Following table give the details.

Table-22: Awareness and effectiveness on communication materials – RMO members

Communication Materials	Awareness			Effectiveness		
	2005	2006	Increase %	2005	2006	Increase %
1. Posters (4 types)	2.34	2.73	16.66	2	2.33	16.5
2. Folders (2 types)	0.13	.94	623.07	0.11	.72	554.54
3. Booklet	0.27	.48	77.77	0.26	.36	38.46
4. Coat Pin	0.02	.64	3100	0.02	.52	2500
5. T-shirt	0.56	2.17	287.5	0.48	1.71	256.25
6. Signboards (4 types)	2.52	2.01	-20.23	2.21	1.63	-26.24
7. MACH Documentary (Bangla)	0.5	1.30	160	0.49	1.10	124.48
8. Handbills (3 types)	0.44	.97	120.45	0.38	.79	107.89
9. MACH Cap	1.44	2.28	58.33	1.21	1.92	58.67
10. Wall Painting	0.1	1.27	1170	0.08	1.06	1225
11. Education Materials (Wetland Messages)	2.39	2.29	-4.18	2.06	1.93	-6.31
12. MACH Bag	-	1.34	134	-	1.03	103
13. Newsletters	-	.53	53	-	.43	43
14. Leaflets (6 types)	-	1.20	120	-	1.01	101
15. RMO produced leaflets, books & others	-	1.53	153	-	1.22	122
Total (Average)	0.97	1.44	48.45	0.85	1.18	38.82

RMO members were found quite aware of posters, signboards and educational materials. A steady improvement was achieved over the periods. Awareness about RMO led materials was not recorded satisfactory. As far as the effectiveness of materials was concerned RMO members found signboard, educational materials and posters were the more effective materials than other materials..

7.2 Awareness and effectiveness on communication materials – RUG members

RUG members were exposed to MACH communication materials in various ways such as AIG training, courtyard meeting and credit and savings activities, discussion meetings, grass roots level campaign etc. Some of the materials were in the public domain like posters, signboard where RUG members had equal exposure. Based on the exposure and its impact, RUG members' opinion was sought regarding the awareness and usefulness on the communication materials used in MACH project. Their responses were analysed and compared with the baseline to see if any improvement was achieved since the assessment survey of 2005. Following table give the details.

Table-23: Awareness and effectiveness on communication materials – RUG members

Communication Materials	Awareness			Effectiveness		
	2005	2006	Increase %	2005	2006	Increase %
1. Posters (4 types)	2.03	2.54	25.12	1.7	2.00	17.64
2. Folders (2 types)	0.13	.48	269.23	0.09	.28	211.11
3. Booklet	0.06	.22	266.66	0.06	.13	116.66
4. Coat Pin	0.02	.30	1400	0.02	.18	800
5. T-shirt	0.42	1.98	371.42	0.38	1.46	284.21
6. Signboards (4 types)	2.31	1.66	-28.13	1.91	1.26	-34.03
7. MACH Documentary (Bangla)	0.37	.73	97.29	0.34	.59	73.52
8. Handbills (3 types)	0.39	.51	30.76	0.34	.40	17.64
9. MACH Cap	1.27	1.91	50.39	1.08	1.47	36.11
10. Wall Painting	0.07	1.20	1614.28	0.06	.97	1516.66
11. Education Materials (Wetland Messages)	2.2	2.11	-4.09	1.78	1.69	-5.05
12. MACH Bag	-	1.14	114	-	.73	73
13. Newsletters	-	.29	29	-	.18	18
14. Leaflets (6 types)	-	.67	67	-	.59	59
15. RMO produced leaflets, books & others	-	.87	87	-	.70	70
Total (Average)	0.84	1.10	30.95	0.71	0.84	18.30

RUG members were found to have above average level of awareness on posters and educational materials. In some area, there shows a decreasing trend. However, at the overall level both awareness and effectiveness has increased by 30.95 and 18.30 % respectively. The increase is multi-fold in some cases (Wall painting, T-Shirt, folder etc.) but still not average level Regarding effectiveness of materials RUG members found that posters, educational materials and MACH caps are more effective than other materials.

7.3 Awareness and effectiveness on communication materials – General Villagers

General villagers were exposed to MACH communication materials in various ways but mainly grass roots level campaign and public information dissemination like posters, signboard. Based on the exposure to MACH information and awareness messages, general villagers' views were gathered regarding the awareness and usefulness (effectiveness) of the communication materials used in MACH project. Their responses were analysed and compared with the baseline to see if any improved was achieved since the assessment survey 2005. Following table gives the details.

Table 24: Awareness and effectiveness on communication materials – GV

Communication Materials	Awareness			Effectiveness		
	2005	2006	Increase %	Baseline	Follow – up 2005	Increase %
1. Posters (4 types)	1.7	2.04	20	1.3	1.47	13.07
2. Folders (2 types)	0.07	.03	-57.14	0.07	.00	-100
3. Booklet	0.11	.08	-27.27	0.11	.04	-63.63
4. Coat Pin	0.03	.07	133.33	0.03	.03	0
5. T-shirt	0.27	.85	214.8	0.26	.78	200
6. Signboards (4 types)	2.19	2.56	16.89	1.71	1.81	5.64
7. MACH Documentary (Bangla)	0.14	.27	92.85	0.13	.21	61.53
8. Handbills (3 types)	0.18	.17	-5.55	0.18	.14	-22.22
9. MACH Cap	0.96	.94	-2.08	0.68	.63	-7.35
10. Wall Painting	0.03	.03	0	0.03	..23	666
11. Education Materials (Wetland Messages)	1.61	1.67	3.72	1.3	1.10	-4.61
12. MACH Bag	-	.10	10	-	.10	10
13. Newsletters	-	.01	1	-	.00	0
14. Leaflets (6 types)	-	.11	11	-	.06	6
15. RMO produced leaflets, books & others	-	.14	14	-	.13	13
Total (Average)	0.66	0.62	-6.06	0.53	0.52	-1.88

The above table shows that the awareness level of general villagers have developed to average level particularly on posters, signboards and educational materials. A good degree of improvement was achieved on these materials as compared to last year assessment.

Overall awareness on MACH materials had improved significantly from 2004 (.18) to 2005 (.66), since then it dropped a little in 2006. Awareness about the newly introduced materials is extremely low.

Regarding effectiveness of materials, General villagers found signboard the most effective among all followed by educational materials and posters. However, overall effectiveness of MACH communication materials was found to be very poor.

7.4 Communication materials and Respondents' Social factors

The consultant team made an attempt to see the current awareness level based on various attributes of the respondents including educational status, gender and occupation. They are also compared with the assessment findings of 2005. By and large, there has been observed a positive change from 2005 in all the inquired aspects. They all are important and interesting. Some interesting information has come out in the analysis, which might have policy implication in future communication strategies.

Educational level and awareness: The study found that there is a strong correlation exists between educational attainment and the awareness level. This relationship holds true across all

three-project sites. Illiterate people are very little aware about MACH communication materials. Overall, people with secondary level of education have more awareness than other groups. Following table presents the details.

Table-25: Awareness on MACH Communication materials by Respondents' education level

Level of Education	HH	KM	TB	Total (n=315)
Illiterate / Can sign only	0.97	0.84	0.95	0.90
Primary Level	1.11	0.85	1.23	1.10
Secondary Level	1.27	2.16	1.30	1.84
Higher & above Level	1.53	0.96	1.81	1.11
Total	1.22	1.20	1.32	1.23

Gender and Awareness level: The study team also looked if gender has any implication on level of awareness. The data from both surveys (2005 and 2006) show there is a difference between male and female in awareness as well as effectiveness. Male respondent seemed to be more aware than the female respondents. Likewise, male respondent found the MACH communication materials more effective than the female respondents. However, the difference was not very significant as both male and female still had very little awareness on the MACH communication materials.

Table-26: Awareness about MACH communication materials by gender

Site	Male			Female			Overall		
	2005	2006	Change %	2005	2006	Change %	2005	2006	Change %
HH	.91	1.16	27.47	0.88	0.97	10.22	0.89	1.06	19.10
KM	.94	1.00	6.38	0.62	0.86	38.70	0.78	0.93	19.23
TB	.83	1.33	60.24	0.72	1.08	50	0.77	1.20	55.84
Overall	.89	1.16	30.33	0.74	0.97	31.08	0.81	1.06	30.86

It is also important to mention for both types of respondents that there has been an increase recorded by 2006 survey from 2005 in both awareness and effectiveness. Female has improved slightly better than male respondents but in the Likert scale they are still at very low level.

Table-26.1: Effectiveness of MACH communication materials by gender

Site	Male			Female			Overall		
	2005	2006	Change %	2005	2006	Change %	2005	2006	Change %
HH	0.80	0.93	16.25	0.67	0.70	4.47	0.73	0.81	10.95
KM	0.76	0.78	2.63	0.45	0.71	57.77	0.60	0.74	23.33
TB	0.67	1.06	58.20	0.57	0.82	43.85	0.62	0.94	51.61
Overall	0.74	0.92	24.32	0.56	0.74	32.14	0.65	0.83	27.69

The study team also looked at the occupational background of the respondents to see the awareness level- specifically the fishermen and others. No significant difference was found between the fishermen and respondent from other occupation regarding MACH communication materials.

SECTION –IV: CONCLUSION AND RECOMMENDATIONS

8 Issues related to MACH project and suggestions

The study made an attempt to get views of the respondents about the pitfalls and limitations of MACH project and get suggestions on how the limitations can be overcome. Both the project participants and the general villagers expressed their opinion and shared their concerns with the survey team. They also provided with suggestions to overcome the current project limitations and pitfalls. The respondent did not keep their views within the project boundary; rather they shared wider problems that they faced with the wetland resources including issues related to MACH project. Following matrix gives the views and opinions of the project participants as well as the general villagers.

Table-27: Respondents perception of the limitations of MACH and their potential solutions

	Major Limitations of MACH	Suggestions
Project Participants (RMO & RUG)	<ul style="list-style-type: none"> ▪ Corruption in the beel leasing process (35%) ▪ High lease amount of beels that goes beyond the reach of poor (34%) ▪ Insufficient and damaged sanctuaries (29%) ▪ Flood plains management is dominated by the elites (25%) ▪ Villagers are still not aware or awareness program to be strengthened (23%) ▪ Lack of enforcement of laws (19%) ▪ Lack of supplementary income opportunity (18%) ▪ Repayment conditions are not pro-poor and Loan interest is high (18%) ▪ Lack of training and credit coverage (16%) ▪ Water Pollution – factories and people also (13%) ▪ Theft of fish during prohibition period or from sanctuaries (11%) 	<ul style="list-style-type: none"> ▪ Proper enforcement of laws and motivate govt official not to indulge with corruption ▪ Sanctuaries to be managed and digging to be continued in the dry session ▪ Develop policy/rule so that poor gets preference in taking lease of wetlands ▪ Increase awareness on water pollution ▪ Discuss with factory owners about pollution ▪ Develop sustainable sanctuaries ▪ Create more supplementary income opportunity for the fisherman ▪ Arrange strong guarding in the haor/beels ▪ Extend credit coverage and training opportunities for the poor ▪ Strengthen awareness program – change old signboards
General villager	<ul style="list-style-type: none"> ▪ Lack of supplementary income and training opportunities (42%) ▪ Lease amount of bill is high (34%) ▪ Siltration of sanctuaries (22%) ▪ Illegal possession of wetlands by the rich and vested group (21%) ▪ Lack of participation of general villagers in RMO & RUG meeting and village politics (16%) ▪ Current net is still being used (12%) 	<ul style="list-style-type: none"> ▪ Form more RUG and provide training/credit to poor people ▪ Stop use of current net for fishing ▪ Excavation of beels and canals ▪ Ensure the participation of general villagers in RMO & RUG meeting ▪ Pro-poor policy to be made and steps needed to free wetland from vested groups

The table/matrix has raised some of the key issues that need urgent attentions. The consultant have analysed the issues mentioned in the matrix and found that some of them are key issues that might need attention from the MACH project. These include:

Good Governance: It has been increasingly felt by the project participants to ensure equitable benefit from the project in particular to the poor. Corruptions and lack of law enforcement are causing serious impact ton the poor.

Dominance of Elites and vested interest group: The benefits of MACH project are continuing to be distributed disproportionately among various groups of people. Elites are still skimming from the project leaving the poor far behind from accessing equitable economic opportunities.

Livelihoods and supplementary income: Livelihood of the poor fishermen still at risk during non-fishing period though the project has introduced supplementary income options through credit and training. Interest rate also perceived as high to the respondents. Credit coverage may go far beyond the RUG members to include event the general poor villagers.

Awareness development: MACH has made significant strive for awareness building of the community people. However, there is a clear need for more awareness development activities from the community people but it needs to be focused on specific groups and tailor made approaches.

9 Conclusions and Recommendation

A steady improvement of awareness is evident among the project participants over the years. In compare to the baseline and follow up awareness study, the second awareness study shows significant improvement of awareness particularly among the RMO and RUG members. The increase of awareness among the general villagers is less significant during the last year. However, overall awareness level of the community people on the wetland issues still remains just about above average level. Lot more awareness development is needed if the community-based management of the wetland has to sustain.

MACH had introduced a number of new communication and awareness development activities. Many of these activities were initiated locally by the RMOs such as exposure and exchanged visit, RMO gathering, RMO produced leaflet etc. SO far these activities had made limited impact though the potentiality of these activities were said to be great by the RMO leaders.

Relative awareness on MACH seen to be much higher among the RMO members than the RUG members. In other words, RUG members are falling behind from the main spirit of MACH project. Rather they tend to be more interested with savings and credit activities. There is a need for balancing act to establish complementarities between MACH project activities and IGA programs in particular for the RUG members.

Awareness level of the general villagers has increased but only marginally. They are yet to be integrated within the project frame. They continue to remain on-lookers to the project. Effective integration of the villagers who constitute majority of the population around the wetland remains the key issue for sustainability of the project. RMO as an emergent local institution can take an ever-increasing role to effectively integrate the general villagers with MACH project where FRUG can play a complementary role.

9.1 Way forward

The study team have reflected on the overall findings of the second awareness assessment compared to baseline situation and first awareness assessment - by the same team in 2005. Based on the reflections and the experience with communication strategy development, the consultants following recommendations are made for the MACH project management.

Interactive and locally accepted communication method and materials: The project has number of interactive communication approach already in place like drama. To be more effective the dramas could be bolstered by introducing locally acclaimed stories, characters, and dialects.

The communication events particularly the interactive one should be implemented in an iterative manner so that the participants can deepen their understanding on the issues. One of an event will not be much helpful.

Especial program as well as focus is necessary for the general villagers to enable them to effectively collaborate with the project participants. Appropriate communication methods including selection media and adequate intensity will be needed to bring their awareness compatible to the project participants.

Advanced RUG and RMO members can be used as effective communication channel for awareness development of the poor villagers. Such members can be trained to work for MACH.

Government officials, public representatives and local opinion leaders have great potential to work as change agent and facilitate mobilization and awareness building. MACH project can devise specific role for them to work on various awareness building activities particularly at RMO level programs and events.

SECTION-V: AWARENESS ASSESSMENT OF LOCAL GOVERNMENT MEMBERS

10 Introduction

MACH is a collaborative juncture between public and private development initiators. It has identified stakeholders at different levels. At the site and Upazila level, Upazila administration, Fisheries departments, Local Government bodies, and Local Elite and civil society members are brought in a forum called LGC together with site level project management staff. Each MACH site has a Local Government Committee (LGC) to oversee project implementation and ensure cooperation. In that, UNO, UFO and union level local representatives like Chairman and members of UP are important stakeholders. This assessment has also attempted to know their level of understanding about MACH. To this end, a total of 10 such persons were interviewed. They included 3 UNOs, 4 Sr. UFO/UFOs and 3 Chairmen. Site wise, 3 from HH, 4 from KM and 3 from TB site.

CBSG has conducted interviews and collected data using a structured questionnaire. Although, MACH project staff had collected data through direct interview in 2004 and 2005 using the same questionnaire.

11 Findings:

11.1 Awareness about MACH overall goal and objectives

The tenure of service for UNO and SUFO/UFO is around one year while for UP Chairmen's are in their existing portfolios for more than four years. Except the UNO of TB site (Kaliarkoir), other two UNOs were the respondents of 2005 assessment survey. UP chairmen are local and this time they have been found better equipped to respond to the interview questions. The awareness level of LG members, in general, has significantly increased from 2005 survey. One reason could be that some of the members had been interviewed last year were also included this year's sample. Interviewing some of the same respondents during last year survey might have contributed to their increased awareness this year.

Table-28: Awareness about MACH overall goal and objectives

Respondent	Average Awareness of LG			
	Baseline	Follow-up 2005	Survey 2006	Change %
UNO	3.5	1.33	3.0	125.56
UP Chairman	2.2	2.67	3.67	37.45
SUFO/UFO	3.33	2.75	4.0	45.45
Total Average	3.0	2.25	3.55	57.77

The data presented in the above table shows that there has been an increase of awareness for all categories of respondents. On an average 57.77 increase has been observed. Highest change (125.56%) observed among UNOs and lowest change observed among UP chairmen. The project management can put special attention to appraise local chairman's about the project and its intervention strategies.

11.2 Awareness and Effectiveness of Communication interventions-LG

It is evident from the table presented below that UNO's are highly aware about the project communication interventions. A record (303%) change in their awareness level about MACH communication interventions has been observed for UNOs while overall awareness of LG members increased by 117%. The reason might have been that 2 out of three UNOs were

interviewed last year also. However, some of the communications interventions like important day observance, rally, fair/exhibition etc. were found to be well recognized by the UNOs. One possible reason could be that they are often made chief or special guests on such occasions. LIVE drama and important day observation were found highly recognized MACH interventions for all three types stakeholders. They also opined that these two interventions are most effective.

Table-29: Awareness about MACH Communication Interventions- LG

Communication interventions	Awareness Level (Average)								
	UNO			UP Chairman			SUFO/UFO		
	2005	2006	Change %	2005	2006	Change %	2005	2006	Change %
1. Courtyard Meeting	0	2.33	233	1.33	3.33	150.6	1	2.50	150
2. Community Level Meeting	0.67	2.7	298.5	2.33	3	28.7	1.75	2.25	28.5
3. MACH Project Introductory Meeting	0	2.00	200	0	2.66	266	0	2.00	200
4. Briefing Session for Different Stakeholders	0	2.67	267	0	2.33	233	0	2.25	225
5. Important Day	2	2.67	33.5	2.33	3.33	43.0	2.75	2.75	0
6. Rally	0	2.67	267	1	3	200	2	2.75	37.5
7. Environment Education in School	1	2.33	133	1	1	0	1.75	1.50	-14.3
8. Live Drama	2	2.67	33.5	4	2.66	-33.3	3.75	2.25	-40
9. Folk song	0	2.33	233	0	2	2	0	2.00	200
10. Miking	0.67	2.67	298.5	2	1.66	-16.6	1.75	2.75	57.1
11. Drawing Competition	0.33	1.33	303.0	0	1	1	0.75	1.00	33.33
12. Quiz competition	0	1.33	133	1	1	0	1.25	1.50	20
13. Essay Competition	0	1.67	167	0	0.66	66	0.75	1.25	66.6
14. TV Program	0	2.00	200	0	2.66	266	1.5	2.00	33.3
15. Video show on Wetland Resources	0	1.67	167	0	1.33	133	0	1.50	150
16. Fair/Exhibition	2	2.67	33.5	2	1.66	-16.6	2	2.75	37.5
17. MACH Workshop	0	1.67	167	0	2	2	0	1.75	175
18. Visits to other sites & networking	0	2.33	233	0	2	2	0	2.50	250
19. RMO petition / gathering	0	1.67	167	0	2	2	0	2.25	225
Total (Average)	0.54	2.18	303.7	1.06	2.07	95.2	1.31	2.08	58.7

The awareness and effectiveness level of Fishery Officers are higher than UP Chairmen. Even though their score was found below overall average. It is notable that LIVE DRAMA, Day observance, Miking, Fair/Exhibitions, Folk songs as communication interventions were found relatively more effective than other types interventions. The project needs to more selective in

implementing awareness development interventions. The project should give special attention to aware its site level stakeholders about the MACH communication interventions.

Overall change in the effectiveness status of communication interventions has increased by 111%. The overall change figure is mostly influenced by the opinion of UNOs. However, changes in case of UFO and Chairman are 92% and 58% respectively. The table below presents the a comparative status of effectiveness of MACH communication interventions in 2005 and 2006 by LG.

Table-30: Effectiveness of Communication Interventions- Local Government

Communication interventions	Effectiveness Level (Average)								
	UNO			UP Chairman			SUFO/UFO		
	2005	2006	Change %	2005	2006	Change %	2005	2006	Change %
1. Courtyard Meeting	0	2.00	200	1	3.33	233.33	1	2.75	175
2. Community Level Meeting	0.67	2.33	248.2	2	3.00	50	1.75	2.25	28.57
3. MACH Project Introductory Meeting	0	2.00	200	0	2.67	267	0	2.00	200
4. Briefing Session for Different Stakeholders	0	3.00	300	0	2.33	233	0	2.25	225
5. Important Day	2	2.67	33.33	2.33	3.00	28.7	2.75	2.50	-9.09
6. Rally	0	2.33	233	1	2.67	166.6	2	2.50	25
7. Environment Education in School	1	2.00	100	1	1.00	0	1.75	1.75	0
8. Live Drama	2	2.33	16.66	4	2.67	-33.3	3.75	2.50	-33.33
9. Folk song	0	2.33	233	0	2.00	200	0	2.00	200
10. Miking	0.67	2.33	248.26	2	2.00	0	1.75	2.50	42.85
11. Drawing Competition	0.33	1.33	304.04	0	1.00	100	0.75	0.75	0
12. Quiz competition	0	1.00	100	1	1.00	0	1.25	1.25	0
13. Essay Competition	0	1.00	100	0	0.67	67	0.75	1.00	33.33
14. TV Program	0	2.00	200	0	2.67	267	1.5	1.75	16.66
15. Video show on Wetland Resources	0	2.00	200	0	1.33	133	0	2.00	200
16. Fair/Exhibition	2	2.33	16.66	2	1.67	-16.67	2	2.50	25
17. MACH Workshop	0	1.67	167	0	2.33	233	0	1.50	1.5
18. Visits to other sites & networking	0	2.67	267	0	2.00	200	0	2.75	2.75
19. RMO petition / gathering	0	1.67	167	0	2.33	233	0	2.75	2.75
Total (Average)	0.54	2.05	279.6	1.02	1.96	92.1	1.31	2.07	58.1

11.3 Awareness and Effectiveness of MACH communication materials -LG

Communication materials play very important role in communicating any messages or ideas. MACH has developed number of such attractive materials during two phases. They include Coat pin, Calendars, Posters, Festoons, sun caps etc. During the assessment, LG members were asked to express their opinion about the relative awareness and effectiveness of those materials for MACH audience in a 5 point Likert Sacle. There have been positive changes observed in the awareness and effectiveness of the communication materials.

Table-31: Awareness about MACH Communication Materials- Local Government

Communication intervention	Awareness								
	UNO			UP Chairman			SUFO/UFO		
	2005	2006	Change %	2005	2006	Change %	2005	2006	Change %
1. MACH Brochure/Booklet/MACH Calendar	1.67	2.00	19.76	2.33	2.50	7.29	2.5	2.63	5
2. Festoon, Placards Used in Day observances, Rally, Workshop etc	0	2.33	233	2.33	2.17	-7.01	2.5	3.00	20
3. Sign boards, Wall Painting	0	2.67	267	2.33	2.50	7.29	2.25	2.75	22.22
4. Environmental Education Programs through Printed Khatta	0	1.67	167	0	1.00	100	0	1.75	175
5. Quiz Competition	0	1.00	100	1	1.00	0	1	1.25	25
6. Sun Cap	0.67	1.33	99.00	1	1.00	0	1	1.00	0
7. Signboard	0.67	1.67	148.75	1	1.33	33.33	2	2.25	12.5
8. Baul (folk) Song	0	1.67	167	0	1.33	133	0	1.00	100
9. Poster (Benefits of trees)	0	1.67	167	0	1.67	167	0.75	2.50	233.33
Total (Average)	0.33	1.78	439.3	1.11	1.61	45.0	1.33	2.01	51.1

Overall changes recorded 94% for awareness and 86% for effectiveness. Although, the figures are significantly affected by the UNOs opinion, although the average score is just around 2 (average level). High change figure does not mean that the LG members awareness level went high. There still require lot of effort to make the LG members aware about MACH communication interventions vis-a-vis the materials.

The current level of awareness and effectiveness was found below average for UNOs, average for UNFOs and slightly above average level for the Chairmen.

Table-32: Effectiveness of Communication Materials- Local Government

Communication intervention	Awareness								
	UNO			UP Chairman			SUFO/UFO		
	2005	2006	Change %	2005	2006	Change %	2005	2006	Change %
1.MACH Brochure /Booklet/MACH Calendar	2	2.67	33.33	2.33	2.83	21.60	2.75	2.75	0
2. Festoon, Placards Used in Day observances, Rally, Workshop etc	0	2.67	267	2.33	2.17	-7.01	2.5	2.75	10
3. Sign boards, Wall Painting	0	2.67	267	2.33	2.50	7.29	2.25	3.00	33.33
4.Environmental Education Programs through Printed Khatta	0	1.33	133	0	1.00	100	0	1.75	175
5. Quiz Competition	0	0.33	33	1	1.00	0	1	1.25	25
6. Sun Cap	0.67	1.33	99.00	1	1.33	33.33	1	0.75	-25
7. Signboard	0.67	1.33	99.00	1	1.33	33.33	2	2.00	0
8. Baul (folk) Song	0	1.67	167	0	1.00	100	0	1.00	100
9. Poster (Benefits of trees)	0	1.67	167	0	1.33	133	0.75	2.25	200
Total (Average)	0.37	1.74	370.2	1.11	1.61	45.0	1.36	1.94	42.64

The LG members understanding at the effectiveness of MACH communication materials has not been found adequate, which is still below average. This indicates that MACH project require further attention to appraise LG people about project intervention which eventually may bring benefit to the project.

12 Areas for Improvements and suggestions by LG

The LG respondents mentioned some limitations and also put forward some corresponding recommendations. They mentioned awareness activities are not very strong in such a time bound project. They also motioned that there should be limited structure at the field level that is gradual withdrawal of project management support. They particularly opined that RMOs are not enough capacitated that they can sustain. The LG members, particularly the UNOs suggested that project should take initiative for institutional strengthening of RMO.

The LG members reiterated that social development activities to be further strengthened including incorporation of education component. They also felt that project does not share adequate financial information with the LG members. The project may examine and consider the limitations and recommendations as expressed in the table below.

Table-33: Limitation of MACH and subsequent suggestions made by LG

	Limitations	Recommendations
UNO	<ul style="list-style-type: none"> ▪ High cost project – cost – benefit analysis is not properly done and financial information is not shared in the meetings ▪ Responsible and literate persons of the society do not show interest ▪ Awareness activities are not strong ▪ Lack of social and educational aspect in the project ▪ Limited and time based project – every doubt about sustainability 	<ul style="list-style-type: none"> ▪ Strengthen awareness raising and bring social and educational activities ▪ Involve Fisheries officer in local policy and implementation ▪ Local government and responsible persons to be involved in implementation ▪ Local institutions require more management support ▪ Extend and mainstream before closing of project – limited structure has to be there for another three years ▪ A long-term plan (10-15 years) has to be made for the protection of wetland involving local government
SUFO/ UFO	<ul style="list-style-type: none"> ▪ Bill board/signboards have become old and they are no more attractive ▪ Lack of proper coordination and information sharing about project activities in LGC meeting ▪ Time cost of govt officers is not taken into consideration ▪ Most of time project ask for endorsement on their decision ▪ Illiterate people cant read the message and signboards ▪ Too much message oriented and signboards have become illegible ▪ Implementation and line of control to be systematic 	<ul style="list-style-type: none"> ▪ This project is relatively more effective than other collaborative project but still much to be done to make it sustainable ▪ Involve local officers in implementation and policy decision as they know more about local situation ▪ Make communication materials more visual ▪ Street drama to be organised frequently ▪ LGC meeting to made more active and decision oriented not just sharing ▪ Media coverage /TV program require further attention and extension
UP	<ul style="list-style-type: none"> ▪ Message and campaign are still not adequate and they are not reaching to 	<ul style="list-style-type: none"> ▪ Change bill-boards and make messages more visual

	Limitations	Recommendations
Chairmen	<p>the right person – involved in illegal fishing</p> <ul style="list-style-type: none"> ▪ Local government are not adequately involved in the RMO management and MACH implementation ▪ Not adequate support of local elite/influential people in the project activities 	<ul style="list-style-type: none"> ▪ Develop mechanism to reach and motivate those who are involved with illegal fishing ▪ Increase participation of people representatives in project activities ▪ RMO activities to be monitored regularly by the fisheries department. ▪ RUG members need more training and loan ▪ Extend loan program for sustainability

The signboards carrying important messages have become scribbled – almost all types of LG members mentioned it during interview. It is a common desire from all the LG members interviewed that they expect project should involve them more frequently. Increased participation of LG members, particularly the UFO and local government functionaries may contribute to the longer-term sustainability of MACH.



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.

Assessment of Community Awareness Regarding - 2006 Wetland Resource and Bio-Diversity Conservation Issues and Effectiveness of MACH Awareness Activities (Questionnaire)

HH	TB	KM
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Sample No.				
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100. General Information:

100.1 Village : 100.2 Union :

100.3 Upazila : 100.4 District :

100.5 Intended respondent type:

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 If a member of an RMO: Name of RMO:

200.7 If an office bearer of RMO [Only for RMO members] :

200.8 If a member of an RUG : Name of RUG :

200.9 If an office bearer of RUG [Only for RUG members] :

Respondent type

RMO EC member & in RUG or not in RUG	RMO GB member but not in RUG	RMO GB member & in RUG	RUG member but not in RMO	General villager
1	2	3	4	5

300. Opinions on changes in wetland/floodplain resources and management

300.1 Have there been any changes in wetland resources and fisheries, and access and decisions about those resources, in this area in the last few years? [Y=1, N=0]

300.2 If yes, what are the main changes? (record in order volunteered by respondent)

- a)
- b)
- c)
- d)
- e)

300.3 Who has brought about those changes? (record in order volunteered by respondent)

- a)
- b)
- c)

400. Awareness about MACH

400.1 Have you heard the name of MACH Project? Yes = 1, No = 0

400.2 Have you heard about RMO? Yes = 1, No = 0

If yes, what is the name of the RMO here?

400.3 Have you heard about RUG? Yes = 1, No = 0

If yes, what is the name of the RUG here?

400.4 Do you know about any MACH activities? Yes = 1, No = 0

400.5 If yes, what are the main activities of MACH project?:

- a)
- b)
- c)
- d)
- e)

400.6 Have you participated any of the activities of MACH project? Yes = 1, No = 0
If yes, mention the name of the activities:

- a)
- b)
- c)
- d)
- e)

400.7 Mention some key messages of MACH project (if acquainted with MACH activities):

- a)
- b)
- c)
- d)
- e)

400.8 What would you say the objectives of MACH project are? [do not prompt initially, but ask for explanations / details as needed, and record below]

- a)
- b)
- c)
- d)
- e)

Based on replies recorded above score respondent awareness on MACH Project Objectives in the scale of 0 – 4 (0 = Not at all, 1 = Very Little, 2 = Average, 3 = High, 4= Very High):

- (a) **Objective-1** : Raise awareness about the importance of natural flood plain resources to secure food and income security;
- (b) **Objective-2** : Maintain and recover the selected natural flood plain ecosystems and associated fisheries;
- (c) **Objective-3** : Identify activities to generate alternative income that result in a reduction of pressure from fishing and agriculture.

400.9 Did you receive any training from MACH project?
Yes = 1; No = 0, If yes; would you please tell the name of the courses?

- a).....
- b).....
- c).....
- d).....

Code t 01= Cow rearing/fattening, 02= Poultry, 03= fish culture/nursery, 04= Plant nursery, 05= Vegetable Cultivation, 06= Wheat Cultivation, 07= Potato Cultivation, 08= Vocational, 09= Tailoring, 10= Cane and bamboo work, 11= Birth Attendance, 12= Embroidery, 13= Driving, 14= Goat rearing, 15= Mushroom cultivation; 16= others AIG training

Code t 21= Leadership Development, 22=Resource Awareness, 23=Group management, 24= Gender/Advocacy etc., 25=FRUG Development, 26= Finance and credit mgt, 27= others (Non AIG training)

500 CBO awareness: What do you know about the following?

[do not prompt beyond examples given. record responses, later interviewer to score these according to 0 = Not at all, 1 = Very Little, 2 = Average, 3 = High, 4= Very High]

For RMO Members:

500.1 Formation of RMO (e.g. who can be members, how leaders are chosen)

a)

b)

c)

500.2 Management of RMO (e.g. types and frequency of meetings, how decisions are taken, accounts)

a)

b)

c)

500.3 Roles and Responsibilities of RMO Members

a)

b)

c)

500.4 Activities of RUG

a)

b)

c)

For RUG Members:

500.5 Name of RMO

500.6 Objectives of RMO Formation

a)

b)

c)

500.7 Formation and Management of RUG (e.g. who can be members, leaving and joining)

a)

b)

c)

500.8 Activities of RUG

a)

b)

c).....

500.9 Formation and Management of FRUG (e.g. meetings, membership)

- a)
- b)
- c)

500.10 Activities of FRUG

- a)
- b)
- c)

600. Mention your awareness about Communication activities initiated by the MACH project for public awareness on wetland resources in the scale of 0 – 4

	<u>Awareness Level</u>	<u>Effectiveness *</u>
600.1 Courtyard Meeting	<input type="text"/>	<input type="text"/>
600.2 Community Level Meeting	<input type="text"/>	<input type="text"/>
600.3 MACH Project Introductory Meeting	<input type="text"/>	<input type="text"/>
600.4 Briefing Session for different Stakeholders	<input type="text"/>	<input type="text"/>
600.5 Important Day Observance	<input type="text"/>	<input type="text"/>
600.6 Rally	<input type="text"/>	<input type="text"/>
600.7 Environment Education in School	<input type="text"/>	<input type="text"/>
600.8 Live Drama	<input type="text"/>	<input type="text"/>
600.9 Folk Song	<input type="text"/>	<input type="text"/>
600.10 Miking	<input type="text"/>	<input type="text"/>
600.11 Drawing Competition	<input type="text"/>	<input type="text"/>
600.12 Quiz Competition	<input type="text"/>	<input type="text"/>
600.13 Essay Competition	<input type="text"/>	<input type="text"/>
600.14 TV Programs	<input type="text"/>	<input type="text"/>
600.15 Video Show on Wetland Resources	<input type="text"/>	<input type="text"/>
600.16 Fair/Exhibition/Stalls	<input type="text"/>	<input type="text"/>
600.17 MACH Workshop	<input type="text"/>	<input type="text"/>
600.18 Visits to other sites & networking	<input type="text"/>	<input type="text"/>
600.19 RMO petition / gathering	<input type="text"/>	<input type="text"/>

[Awareness: 0 = Not at all (no knowledge of activity); 1 = Very Little (heard about it); 2 = Average (someone in household saw/attended but don't know/forgot any messages), 3 = High (participated/saw and remember something), 4=Very High (attended/saw and remember messages)]

*[*Effectiveness use 5 point ladder scale from 0 not at all effective/couldn't understand, to 4 highly effective – changed my opinions. Scoring will not be applicable for the respondents who score zero (0) on awareness about the above communication activities of MACH project]*

700. Mention your awareness about communication materials developed by the MACH project in the scale of 0 – 4:

	<u>Awareness Level</u>	<u>Effectiveness</u>
*		
700.1 Posters (4 types)	<input type="text"/>	<input type="text"/>
700.2 Folders (2 types)	<input type="text"/>	<input type="text"/>
700.3 Booklets / Brushier	<input type="text"/>	<input type="text"/>
700.4 Coat Pin	<input type="text"/>	<input type="text"/>
700.5 T-shirt	<input type="text"/>	<input type="text"/>
700.6 Sign Boards (4 types)	<input type="text"/>	<input type="text"/>
700.7 MACH Documentary (Bangla)	<input type="text"/>	<input type="text"/>
700.8 Hand Bills (3 types)	<input type="text"/>	<input type="text"/>
700.9 MACH Cap	<input type="text"/>	<input type="text"/>
700.10 Wall Painting	<input type="text"/>	<input type="text"/>
700.11 Education Materials (Wetland Messages)	<input type="text"/>	<input type="text"/>
700.12 MACH Bag	<input type="text"/>	<input type="text"/>
700.13 Newsletters	<input type="text"/>	<input type="text"/>
700.14 Leaflets (6 types)	<input type="text"/>	<input type="text"/>
700.15 RMO produced leaflets, books and others	<input type="text"/>	<input type="text"/>

[Awareness: 0 = Not at all (no knowledge of activity); 1 = Very Little (heard about it); 2 = Average (someone in household saw/attended but don't know/forgot any messages), 3 = High (participated/saw and remember something), 4=Very High (attended/saw and remember messages)]

*[*Effectiveness use 5 point ladder scale from 0 not at all effective/couldn't understand, to 4 highly effective – changed my opinions. Scoring will not be applicable for the respondents who score zero (0) on awareness about the above communication activities of MACH project]*

800.1 Mention general problems of MACH project/activities (if any):

- a)
- b)

800.2 What measures could be undertaken in future to overcome such problems:

- a)
- b)

800.3 Mention other specific comments (if any):

- a)
- b)

Annex-4

Annex Tables and Matrixes of MACH Awareness Assessment Report-2006

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Annex-4: Tables and Matrixes

A. Name of the RMO & RUG covered by the Awareness Assessment Survey -2006

Name of the RMOs	
<i>Hail Haor</i>	
01	Jathua Development Organization
02	Dumuria Development Organization
03	Sanonda Development Organization
<i>Turag - Bongshi River Basin</i>	
04	Mokosh – Kaliadaho Bill Resource Management Welfare Organization
05	Alua Beel Resource Management Welfare Organization
06	Turag Bongshi Fish Resource Management Welfare Organization
<i>Kongshaw - Malijhee River Basin</i>	
07	Dhali Baila Beel Floodplains Resource Management Organization
08	Takimari Daribashia Floodplains Development Organization
09	kaowta Beel Floodplains Resource Management Organization

Name of the RUGs			
<i>Hail Haor</i>			
01	Lal Golap Mohila Development Somity	20	Upohar Jubok Somity
02	Provaty Development Somity	21	Rupchada Mohila Somity
03	Modhumita Mohila Somity	22	Jatrapasha Development Somity
04	Alamin Resource User Organization	23	Shonchooe Purush Somity
05	Matshojibi Shamobai Somity	24	Kanok Chapa Mohila Somity
06	Shemanto Mohila Somity	25	Surjodai Jubok Somity
07	Hoimoty Mohila Somity	26	Dahuk Matshojibi Somity
08	Golapful Mohila Somity	27	Surjomukhi Jubo Somity
09	Dayal Matshojibi Somity	28	Sonar Bangla Matshojibi Somity
10	Manob Development Somity	29	Padma Jubok Somity
11	Baruna Jubok Welfare Somity	30	Rajonigandha Matshojibi Somity
12	Jomuna Mohila Somity	31	Shobuj Shathi Mohila Somity
13	Shapla Mohila Somity	130	Ranovim Jagoroni Shamobai Somity
14	Provati Purush Somity	131	Anondo Mohila Development Somity
15	Kashipur Development Somity	132	Onindita Mohila Development Somity
16	Mitali Purush Somity	133	Kalapur Union Resource User Organization
17	Hazipur Jubo Welfare Somity	134	Vunobir Ashedul Resource User Organization
18	Bada Alisha Matshojibi Somity	135	Progoti Development Somity
19	Taroka Matshojibi Somity		

Name of RUG			
<i>Turag - Bongshi River Basin</i>			
32	Boalia Ganer Alo Purush Somity	55	Bagambar Shamojibi Matshojibi Somity
33	Ajgana Chingri Somity	56	Baroibari Matshojibi Somity
34	Baniachala Tolla Matshojibi Somity	57	Medi Ashulai Mola Purush Somity
35	Boalia Purbapara Mohila Somity	58	Gupinpur Rui Matshojibi Somity
36	Folie Matshojibi Somity	59	Medi Ashulai Doyel Mohila Somity
37	Medi Ashulai Mohila Somity	60	Asharia bari Purush Somity
38	Banolata Purush Somity	61	Derchala Jhenuk Somiy
39	Shing Purush Somity	62	Bhangar Jangal Purush Matshojibi Somity
40	Haturiachala Shing Purush Somity	63	Modonkhali Shapla Purush Somity
41	Bashtoli Matshojibi Somity	64	Kadom Purush Somity
42	Taltoli Shapla Mohila Somity	65	Amdair Purush Matshojibi Somity
43	Doyel Mohila Somity	66	Karpu Purush Somity
44	Bater Carp Somity	67	Roshedpur Kadom Purush Somity
45	Haturiachala Pangas Somity	68	Nam Ashulai Purush Matshojibi Somity
46	Sheulimala Mohila Somity	69	Shapla Purush Somity
47	Roghunathpur Chanda Purush Somity	70	North Sripur Pabda Purush Somity
48	Sripur Aser Alo Purush Somity	71	Medi Ashulai Jhinuk Somity
49	Rupchanda Purush Somity	72	Pangash Purush Somity
50	Baroibari Purush Matshojibi Somity	73	Singho Purush Somity
51	Sinabaho Akota Mohila Somity	74	Sholahati Udaown Mohila Somity
52	Nam Ashulai Hijol Mohila Somity	75	Baroibari Sheulimala Mohila Somity
53	Palash Mohila Somity	76	Bataragar Chingri Somity
54	Bhangar Jangal Krishok Somity	77	
<i>Kongshaw - Malijhee River Basin</i>			
77	North Paikora Matshojibi Somity	104	Chitol Matshojibi Shamobai Somity
78	Kamaria Paka Matshojibi Somity	105	Howra Niz Chingri Matshojibi Somity
79	Chanda Somity	106	Dorikalinagor Chanda Matshojibi Somity
80	Malijheekanda Union Resource User Organization	107	VatiaPara Doyel Mohila Somity
81	Jol Paddo Mohila Somity	108	Howra Niz Hizol Matshojibi Somity
82	Rojonigondha Mohila Somity	109	Shaplpla Matshojibi Purush Group
83	Dorikalinagor Karphu Matshojibi Somity	110	Uzzal Somity
84	Dholibaila Bil Karphu Somity	111	Shol Group

Name of RUG			
85	Tangaripara Baush Matshojibi Somity	112	Badha Teghoria Pora Matshojibi Purush Somity
86	Dolonchapa Matshojibi Somity	113	Tilkandi Mohila Kalim Somity
87	Uzzal Matshojibi Somity	114	Gonoibarua Jhinuk Mohila Somity
88	Jhenigati Union Resource User Organization	115	Pakuria Vatiapara Shapla Somity
89	Pakuria Bil Bhatshala Union Development Organization	116	Conapara Golap Somity
90	Dholibaila Bil Chingri Group	117	Kamaria Jui Mohila Somity
91	Tilkandi Gonia Matshojibi Somity	118	Dorikalinagor Telapia Matshojibi Somity
92	Tilkandi Mohila Kollan Somity	119	Dorikalinagor Gulsha Matshojibi Purush Somity
93	Chingri Matsho Shamobai Somity	120	kaowta Beel Matshojibi Somity
94	Chinguria Shapla Mohila Somity	121	Dorikalinagor Cingri Matshojibi Somity
95	Baniapara Dolonchapa Mohila Somity	122	Karphu Mohila Matshojibi Somity
96	Shemul Mohila Somity	123	Tilkandi Shaluk Mohila Somity
97	Kamaria Pabda Purush Somity	124	Tilkandi Pusti Matshojibi Somity
98	Malijhi Purush Matshojibi Somity	125	Khamar Para Lili Mohila Somity
99	Tilkandi Shing Somtiy	126	Madho Shaldaho Shaluk Mohila Somity
100	Bakar Kanda Bok Somity	127	Katol Somity
101	Gonoiborua Mohila Mukta Somity	128	Bak Somity
102	Bonna Matshojibi Somity	129	Sharputi Somity
103	Conagaow Shol Matshojibi Somity		

Annex Tables and Matrixes

Table A-1: Primary and Secondary Occupational status of the Respondents

Occupation	Respondent distribution by Primary Occupation		Respondent distribution by Secondary Occupation	
	Responses	%	Responses	%
Agriculture in own land	85	27.0%	1	.3%
Share cropper	13	4.1%	9	2.9%
Fishermen	23	7.3%	9	2.9%
Argi labour	7	2.2%	13	4.1%
Industrial labor	-	-	43	13.7%
Transportation labor	-	-	11	3.5%
Construction labor	-	-	18	5.7%
Business – Small	39	12.4%	23	7.3%
Business – Large	14	4.4%	29	8.9%
Government employee	2	.6%	22	7.0%
NGO employee	10	3.2%	-	-
Self employed	94	29.8%	7	2.2%
Carpenter	4	1.3%	-	-
Cottage industry	8	2.5%	4	1.3%
House wife	8	2.5%	-	-
Student	-	-	2	.6%
Unemployed	-	-	24	7.6%
Others	8	2.5%	100	31.8%
Total	315	100%	315	100.0%

Table A-2: Secondary Occupation Distribution by Gender (percent)

	HH			KM			TB			Overall		
	n	Male	Female	n	Male	Female	n	Male	Female	n	Male	Female
Agriculture in own land	0	0	0	0	0.0	0.0	1	100.0	0.0	1	100.0	0.0
Share cropper	6	66.7	33.3	2	0.0	0.0	1	100.0	0.0	9	55.6	44.4
Fishermen	5	60.0	40.0	1	100.0	0.0	3	100.0	0.0	9	77.8	22.2
Day labour	5	80.0	20.0	3	66.7	33.3	3	60.0	40.0	13	69.2	30.8
Construction labour	16	75.0	25.0	9	66.7	33.3	9	50.0	50.0	43	62.8	37.2
Business – Small	4	75.0	25.0	4	75.0	25.0	3	100.0	0.0	11	81.8	18.2
Business – Large	5	100.0	0.0	2	100.0	0.0	6	54.5	45.5	18	72.2	27.8
NGO employee	6	83.3	16.7	11	81.8	18.2	5	83.3	16.7	23	82.6	17.4
Self employed	12	63.6	36.4	7	100.0	0.0	7	70.0	30.0	29	72.4	27.6
Carpenter	6	100.0	0.0	3	100.0	0.0	12	92.3	7.7	22	95.5	4.5
Cottage industry	1	100.0	0.0	0	0.0	0.0	5	0.0	100.0	7	0.0	100.0
House wife	0	0.0	0	2	100.0	0.0	2	100.0	0.0	4	100.0	0.0
Student	0	0.0	0	0	0.0	0.0	2	0.0	100.0	2	0.0	100.0
Unemployed	4	75.0	25.0	17	58.8	41.2	1	33.3	66.7	24	58.3	41.7
Others	35	60.0	40.0	44	54.5	45.5	13	61.9	38.1	100	58.0	42.0
Total (%)	105	71.2	28.8	105	65.7	34.3	73	69.5	30.5	315	68.6	31.4

Table A-3: Level of Education According to Respondent Category

Respondent type	Illiterate/Can sign only		Primary Level		Secondary Level		Higher Secondary & above		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
RMO-EC	5	13.9	5	13.9	19	52.7	7	19.4	36	100
RMO-GB	14	38.9	5	13.9	16	44.4	1	2.8	36	100
RMO-GB+RUG	25	39.6	18	28.5	20	31.7	0	.0	63	100
RUG	40	44.4	27	30.0	23	25.5	0	.0	90	100
General villagers	41	45.5	20	22.2	24	26.6	5	5.5	90	100
Total	125	39.6	75	23.8	102	32.3	13	4.1	315	100

Table A-4: Overall Score of Awareness about MACH Project objectives of project participants

Score	MACH Specific Project Participants				
	Objective-1	Objective-2	Objective-3	Total	Percentage
Very High (4)	13	15	14	14	6.22
High (3)	120	115	123	119	52.88
Average (2)	87	88	80	85	37.77
Very little (1)	3	3	2	3	1.33
Not at all (0)	3	4	6	4	1.77
Total	225	225	225	225	100.00

Table A-5: Changes (response in percent) brought by MACH project by site

Changes noticed	Site wise change in wetland			Total
	HH	KM	TB	
Sanctuary established and wetland environment improved	88	87	84	100
Forestation along the side of wetland	51	60	69	79
Overall fish production increased including indigenous fish species	32	15	32	70
Stopped fishing in the hoar for three months (April-June)	19	13	25	58
Awareness increased in general	15	19	14	52
Using current net is now prohibited	14	14	10	42
Stopped bird hunting	11	10	8	34
Excavation of haor is done on a regular basis	8	8	11	33
Opportunity of alternative income created	8	6	15	23
Stopped fishing of spawn and brood fish	7	11	6	26
Stopped fishing after complete irrigation of wetlands water	4	7	8	16
Measures taken not to catch rear fish	2	8	5	11

Table A-6: Changing Agents as per respondents by site (response percent)

Code	Changing Agents	Site		
		HH	KM	TB
01	MACH project	78.3	90.2	72.7
02	CARITAS	37.9	43.8	52.3
03	RMO	43.3	26.7	30.0
04	CNRS	40.0	35.0	25.0
05	RUG	7.1	2.8	10.0
06	Local Elite	16.2	15.3	11.6
07	Local Administration	1.9	1.5	13.1
08	The People of NGO	3	6	4

Table A – 7: Overall Awareness on MACH Communication Activities

MACH Communication Intervention	Distribution of Awareness Score of respondents											
	Very High (4)	%	High (3)	%	Average (2)	%	Very little (1)	%	Not at all (0)	%	Total	%
1. Courtyard Meeting	31	9.8	182	57.8	88	27.9	9	2.9	5	1.6	315	100
2. Community Level Meeting	19	6.0	77	24.4	124	39.4	36	11.4	59	18.7	315	100
3. MACH Project Introductory Meeting	17	5.4	79	25.1	121	38.4	24	7.6	74	23.5	315	100
4. Briefing Session for Different Stakeholders	6	1.9	57	18.1	105	33.3	32	10.2	115	36.5	315	100
5. Important Day Observance	28	8.9	91	28.9	122	38.7	31	9.8	43	13.7	315	100
6. Rally	33	10.5	124	39.4	100	31.7	28	8.9	30	9.5	315	100
7. Environment Education in School	3	1.0	18	5.7	50	15.9	30	9.5	214	67.9	315	100
8. Live Drama	20	6.3	118	37.5	105	33.3	21	6.7	51	16.2	315	100
9. Folk song	4	1.3	88	27.9	106	33.7	28	8.9	89	28.3	315	100
10. Miking	28	8.9	167	53.0	97	30.8	9	2.9	14	4.4	315	100
11. Drawing Competition	1	.3	8	2.5	20	6.3	16	5.1	270	85.7	315	100
12. Quiz competition	3	1.0	1	.3	11	3.5	10	3.2	290	92.1	315	100
13. Essay Competition	3	1.0	1	.3	12	3.8	13	4.1	286	90.8	315	100
14. TV Program	4	1.3	29	9.2	73	23.2	29	9.2	180	57.1	315	100
15. Video show on Wetland Resources	9	2.9	64	20.3	61	19.4	28	8.9	153	48.6	315	100
16. Fair/Exhibition	11	3.5	43	13.7	67	21.3	40	12.7	154	48.9	315	100
17. MACH Workshop	16	5.1	28	8.9	52	16.5	22	7.0	197	62.5	315	100
18. Visits to other sites & networking	16	5.1	36	11.4	46	14.6	14	4.4	203	64.4	315	100
19. RMO petition / gathering	21	6.7	63	20.0	70	22.2	11	3.5	150	47.6	315	100
Total	13.26	4.57	67.05	21.28	75.26	23.88	22.68	7.20	135.63	43.05	315	100

Table A-8:Overall Effectiveness of MACH Communication Activities

MACH Communication Intervention	Distribution of Effectiveness Score of respondents											
	V. High (4)	%	High (3)	%	Average (2)	%	Very little (1)	%	Not at all (0)	%	Total	%
1. Courtyard Meeting	14	4.4	120	38.1	132	41.9	42	13.3	7	2.2	315	100
2. Community Level Meeting	9	2.9	42	13.3	116	36.8	81	25.7	67	21.3	315	100
3. MACH Project Introductory Meeting	8	2.5	43	13.7	119	37.8	68	21.6	77	24.4	315	100
4. Briefing Session for Different Stakeholders	3	1.0	35	11.1	92	29.2	66	21.0	119	37.8	315	100
5. Important Day Observance	18	5.7	49	15.6	121	38.4	77	24.4	50	19.9	315	100
6. Rally	19	6.0	83	36.3	113	35.9	66	21.0	34	10.8	315	100
7. Environment Education in School	2	.6	7	2.2	35	11.1	53	16.8	218	69.2	315	100
8. Live Drama	13	4.1	84	26.7	98	31.1	60	19.0	60	19.0	315	100
9. Folk song	-	-	45	14.3	97	30.8	78	24.8	95	30.2	315	100
10. Miking	8	2.5	120	38.1	131	41.6	42	13.3	14	4.4	315	100
11. Drawing Competition	-	-	2	.6	13	4.1	26	8.3	274	87.0	315	100
12. Quiz competition	2	.6	-	-	10	3.2	13	4.1	290	92.1	315	100
13. Essay Competition	2	.6	-	-	8	2.5	18	5.7	287	91.1	315	100
14. TV Program	3	1.0	12	3.8	71	22.5	48	15.2	181	57.5	315	100
15. Video show on Wetland Resources	3	1.0	46	14.6	56	17.8	51	16.2	159	50.5	315	100
16. Fair/Exhibition	6	1.9	31	9.8	43	13.7	73	23.2	162	51.4	315	100
17. MACH Workshop	9	2.9	19	6.0	33	10.3	53	16.8	201	63.8	315	100
18. Visits to other sites & networking	11	3.5	25	8.0	41	13.1	32	10.2	206	65.6	315	100
19. RMO petition / gathering	11	3.5	40	12.7	83	26.3	28	8.9	153	48.6	315	100
Total	7	2.352	42.	13.94	74	23.58	51	16.28	131	44.56	315	100

Table A-9: Awareness of RMO Members about MACH Communication Activities

MACH Communication Intervention	Average Awareness Score under Different Site									Overall Awareness Score		
	HH			KM			TB					
	Follo w-Up 2005	End-line	Increase %	Follo w-Up 2005	End-line	Increase %	Follo w-Up 2005	End-line	Increase %	Follo w-Up 2005	End-line	Increase %
1. Courtyard Meeting	3.02	3.00	-0.66	2.64	2.86	8.33	2.78	3.11	11.87	2.81	2.99	6.40
2. Community Level Meeting	2.53	2.44	-3.55	2.36	2.18	-7.62	1.93	2.60	34.71	2.27	2.41	6.16
3. MACH Project Introductory Meeting	1.93	2.44	26.42	1.98	2.16	9.09	1.87	2.69	43.85	1.93	2.43	25.90
4. Briefing Session for Different Stakeholders	1.18	1.91	61.86	1.27	1.95	53.54	1.04	1.56	50.00	1.16	1.81	56.03
5. Important Day	2.24	2.47	10.26	2.2	2.39	8.63	1.56	2.69	72.43	2	2.52	26
6. Rally	2.42	2.60	7.43	2.53	2.52	-0.39	2.29	3.11	35.80	2.41	2.75	14.10
7. Environment Education in School	1.36	.44	-67.64	1.31	1.00	-23.66	0.78	.87	11.53	1.15	0.76	-33.91
8. Live Drama	1.69	2.29	35.50	2.73	1.91	-30.03	2.6	2.71	4.23	2.34	2.3	-1.70
9. Folk song	0.73	1.80	146.57	0.93	1.98	112.90	0	1.29	129	0.56	1.7	203.57
10. Miking	2.56	2.62	2.34	2.78	2.89	3.95	2.89	2.93	1.38	2.74	2.81	2.55
11. Drawing Competition	0.16	.53	231.25	0.16	.34	112.5	0.13	.16	23.07	0.15	0.36	140
12. Quiz competition	0.56	.33	-41.07	0.33	.09	-72.72	0.2	.47	135	0.36	0.3	-16.66
13. Essay Competition	0.11	.29	163.63	0.11	.11	00	0	.40	40	0.07	0.27	285.71
14. TV Program	1.24	1.18	-4.83	1.47	1.09	-25.85	1.47	.78	-46.93	1.39	1.01	-27.33
15. Video show on Wetland Resources	1.31	1.62	23.66	1.11	1.18	6.30	0.2	1.89	845	0.87	1.57	80.45
16. Fair/Exhibition	1	1.00	00	0.91	1.61	76.92	0.44	1.56	254.54	0.79	1.38	74.68
17. MACH Workshop		1.36	136.00		.91	91.00		1.60	160.00	-	1.3	13
18. Visits to other sites & networking		1.29	129.00		1.30	130.00		1.82	182.00	-	1.46	146
19. RMO petition / gathering		2.62	262.00		2.09	209.00		2.67	267.00	-	2.47	247
Total (Average)	1.57	1.69	7.64	1.55	1.60	3.22	1.26	1.83	45.23	1.44	1.71	19.35

Table A-10: Effectiveness change of Communication Activities of RMO Members

MACH Communication Intervention	Average Effectiveness Score under three sites									Overall Awareness Score		
	HH			KM			TB			Follow-Up 2005	End-line	Increase %
	Follow-Up 2005	End-line	Increase %	Follow-Up 2005	End-line	Increase %	Follow-Up 2005	End-line	Increase %			
1. Courtyard Meeting	2.84	2.42	-14.78	2.56	2.61	1.95	2.33	2.93	25.75	2.58	2.66	3.10
2. Community Level Meeting	2.22	2.02	-9.00	2.11	2.02	-4.26	1.64	2.22	35.36	1.99	2.01	1.00
3. MACH Project Meeting	1.71	1.96	14.61	1.78	1.70	-4.49	1.6	2.27	41.87	1.7	1.98	16.47
4. Briefing Session	1	1.62	62.00	1.02	1.66	62.74	1	1.24	24.00	1.01	1.51	49.50
5. Important Day	1.96	2.02	3.06	2.02	2.42	19.80	1.29	2.44	89.14	1.76	2.16	22.72
6. Rally	2.2	2.13	-3.18	2.33	2.20	-5.57	1.84	2.89	57.06	2.13	2.41	13.14
7. Environment Education	1.16	.36	-68.96	1.31	.82	-37.40	0.62	.67	8.06	1.03	0.61	-40.77
8. Live Drama	1.6	2.02	26.25	2.6	2.00	-23.07	2.18	2.58	18.34	2.13	2.07	-2.81
9. Folk song	0.67	1.38	105.97	0.73	2.13	191.78	0	.96	96	0.47	1.34	185.10
10. Miking	2.31	2.22	-3.89	2.56	2.61	1.95	2.47	2.69	8.90	2.44	2.5	2.45
11. Drawing	0.13	.38	192.30	0.11	0.20	81.81	0.11	.09	-18.18	0.12	0.24	100
12. Quiz	0.53	.24	-54.71	0.27	0.02	-92.59	0.2	.42	110	0.33	0.23	-30.30
13. Essay	0.11	.20	81.81	0.09	0.05	-44.44	0	.33	33	0.07	0.19	171.42
14. TV Program	1.07	1.04	-2.80	1.31	0.95	-27.48	1.18	.69	-41.52	1.19	0.89	-25.21
15. Video show	1.18	1.40	18.64	1.09	1.02	-6.42	0.11	1.67	1418.18	0.79	1.36	72.15
16. Fair/Exhibition	0.87	.84	-3.44	0.84	1.30	54.76	0.38	1.38	263.15	0.7	1.16	65.71
17. MACH Workshop		1.13	113.00		0.66	66.00		1.27	127.00	-	1.03	103
18. Visits to other sites & networking		1.13	113.00		1.05	105.00		1.49	149.00	-	1.22	122
19. RMO petition / gathering		2.02	202.00		1.80	180.00		2.40	240.00	-	2.07	207
Total	1.35	1.39	2.96	1.42	1.43	0.70	1.06	1.61	51.88	1.28	1.45	13.65

Table A-11: Awareness about MACH Communication Activities - RUG Members

MACH Communication Intervention	Average Awareness Score under Different Site									Overall Awareness Score		
	HH			KM			TB			Follo w-Up 2005	End - line	Increa se %
	Follo w-Up 2005	End - line	Increa se %	Follo w-Up 2005	End - line	Increa se %	Follo w-Up 2005	End - line	Increa se %			
1. Courtyard Meeting	2.7	2.83	4.81	2.53	2.77	9.48	2.53	2.80	10.67	2.59	2.80	8.10
2. Community Meeting	1.87	1.83	-2.13	1.77	1.40	-20.90	1.67	2.17	29.94	1.77	1.80	1.69
3. MACH Project Meeting	1.57	1.63	3.82	1.33	1.23	-7.51	1.8	1.63	-9.44	1.57	1.34	-14.64
4. Briefing Session	1.23	1.37	11.38	0.73	1.37	87.67	1.09	.90	-17.43	0.96	1.50	56.25
5. Important Day Observance	1.83	1.90	3.82	1.8	2.27	26.11	1.23	2.50	103.25	1.62	1.91	17.9
6. Rally	2.33	2.13	-8.58	2.3	2.37	3.04	1.8	2.90	61.11	2.14	2.22	3.73
7. Environment Education in School	1.07	.53	-50.46	0.77	.67	-12.98	0.53	.43	-18.86	0.79	1.97	149.3
8. Drama	1.93	2.30	19.17	2.73	1.80	-34.06	2.37	2.20	-7.173	2.34	.54	-76.92
9. Folk song	0.77	1.50	94.80	1.03	2.37	130.09	0	1.07	107	0.6	2.10	250
10. Miking	2.33	2.53	8.58	2.6	2.90	11.53	1.03	2.43	135.92	2.42	2.64	9.0
11. Drawing Competition	0.13	.27	107.69	0.07	.17	142.85	0.13	.23	76.92	0.11	.22	100
12. Quiz competition	0.57	.10	-82.45	0.37	.00	-100	0.07	.00	-100	0.33	.03	-90.90
13. Essay	0.17	.07	-58.82	0.07	.07	0	0	.10	10	0.08	.08	0
14. TV Program	0.87	1.17	34.48	1.07	.63	-41.12	1.3	.77	-40.76	1.08	.86	-20.37
15. Video show	1.2	1.53	27.5	0.47	.73	55.31	0.3	1.50	400	0.66	.76	15.1
16. Fair/Exhibition	1.1	1.07	-2.72	0.67	1.27	89.55	0.47	1.43	204.25	0.74	.76	2.7
17. MACH Workshop		1.00	100.00		.63	63.00		.97	97.00		.87	87
18. Visits to other sites & networking		.70	70.00		.43	43.00		1.10	110.00		.74	74
19. RMO petition / gathering		1.14	114.00		.37	37.00		1.00	100.00		.83	83
Total	1.35	1.34	-0.74	1.27	1.23	-3.14	1.02	1.37	34.31	1.23	1.25	1.62

Table A-12: Effectiveness change of Communication Activities of RUG Members

MACH Communication Intervention	Average Effectiveness Score under Different Sites									Overall Awareness Score		
	HH			KM			TB					
	Follow-Up 2005	End -line	Increase %	Follow-Up 2005	End -line	Increase %	Follow-Up 2005	End -line	Increase %	Follow-Up 2005	End -line	Increase %
Courtyard Meeting	2.4	2.30	-4.16	2.3	2.37	3.04	2.07	2.37	14.49	2.26	2.34	3.73
Community Level Meeting	1.57	1.37	-12.73	1.63	1.03	-36.80	1.33	1.63	22.55	1.51	1.34	-10.96
MACH Project Introductory Meeting	1.53	1.40	-8.49	1.13	.97	-14.15	1.53	1.23	-19.60	1.4	1.2	-14.28
Briefing Session	1.03	1.20	16.50	0.6	1.10	83.33	0.87	.73	-16.09	0.83	1.01	21.82
Important Day Observance	1.77	1.60	-9.60	1.6	1.70	6.25	1.03	1.93	87.37	1.47	1.74	18.66
Rally	2.2	1.83	-16.81	2.03	2.03	00	1.63	2.37	45.39	1.96	2.07	6.00
Environment Education in School	0.97	.37	-61.85	0.73	.37	-49.31	0.4	.30	-25.00	0.7	0.34	-50.79
Live Drama	1.6	1.90	18.75	2.4	1.43	-40.41	2.13	1.90	-10.79	2.04	1.744	-14.48
Folk song	0.67	1.07	59.70	0.8	1.97	146.25	0	.77	77.00	0.49	1.26	158.50
Miking	1.93	2.07	7.25	2.4	2.47	2.91	1.93	2.03	5.18	2.09	2.18	4.73
Drawing Competition	0.13	.23	76.92	0.07	.13	85.71	0.1	.17	70.00	0.1	1.26	1166.66
Quiz competition	0.5	.10	-80	0.3	.00	-100	0.07	.00	-100.00	0.29	0.03	-88.50
Essay	0.1	.07	-30	0.07	.03	-57.14	0	.07	7.00	0.06	0.05	-7.40
TV Program	0.73	.83	13.69	1.1	.50	-54.54	1.23	.63	-48.78	1.02	0.65	-35.72
Video show	1.03	1.30	26.21	0.67	.47	-29.85	0.23	1.20	421.73	0.64	0.98	54.51
Fair/Exhibition	0.87	1.03	18.39	0.6	.73	21.66	0.43	1.10	155.81	0.63	0.95	51.67
MACH Workshop		.90	90.00		.43	43.00		.70	7.00	-	0.67	67
Visits to other sites & networking		.70	70.00		.33	33.00		.87	87.00	-	0.63	63
RMO petition / gathering		1.03	103.00		.33	33.00		.87	87.00	-	0.74	74
Total	1.19	1.12	-5.88	1.15	0.96	-16.52	0.94	1.09	15.95	1.09	1.11	1.83

Table A-13: Awareness Level –change of GV about MACH Communication Activities

MACH Communication Intervention	Average Awareness Score under Different Sites									Overall Awareness Score		
	HH			KM			TB			Follo w-Up 2005	End - line	Increa se %
	Follo w-Up 2005	End - line	Increa se %	Follo w-Up 2005	End - line	Increa se %	Follo w-Up 2005	End - line	Increa se %			
1. Courtyard Meeting	2.13	2.13	00	1.87	2.23	19.25	1.97	2.27	15.22	1.99	2.21	0.50
2. Community Level Meeting	1.3	.87	-33.07	1.1	1.20	9.09	1.33	1.33	.00	1.24	1.13	-19.35
3. MACH Project Meeting	1	.97	-3.00	1.13	1.67	47.78	1.1	.97	-11.81	1.08	1.2	-7.40
4. Briefing Session	0.63	.53	-15.87	0.67	1.57	134.32	0.5	.70	40.00	0.6	0.93	66.66
5. Important Day	0.93	1.03	10.75	1.17	1.50	28.20	0.7	1.47	110	0.93	1.33	7.52
6. Rally	1.57	1.40	-10.82	1.53	1.70	11.11	0.9	1.53	70.00	1.33	1.54	50.37
7. Environment Education	0.5	.70	40.00	0.6	.33	-45	0.13	.43	230.76	0.41	0.48	-100
8. Drama	1.8	1.63	-9.44	2.37	1.80	-24.05	2.33	2.07	-11.15	2.17	1.83	-7.83
9. Folk song	0.6	1.50	150.00	1	1.77	77	0	1.50	150.00	0.53	1.68	277.35
10. Miking	1.77	2.33	31.63	2.7	2.40	-11.11	2.23	1.93	-13.45	2.23	2.22	-10.31
11. Drawing	0.1	.17	70.00	0	.20	20	0.07	.17	142.85	0.06	0.17	-100
12. Quiz competition	0.13	.10	-23.07	0.13	.00	-100	0	.03	30.00	0.09	0.04	-100
13. Essay	0	.23	23.00	0.03	.00	-100	0	.07	70.00	0.01	0.1	-100
14. TV Program	1.3	.60	-53.84	0.97	1.03	6.18	1.03	.53	-48.54	1.1	0.93	-9.09
15. Video show	0.77	1.03	33.76	0.23	.00	-100	0.07	.73	942.85	0.36	0.58	177.77
16. Fair/Exhibition	0.43	.33	-23.25	0.4	.27	-32.5	0.37	1.00	170.27	0.4	0.53	150
17. MACH Workshop		.10	10.00		.00	.00		.60	60.00	-	0.23	0
18. Visits to other sites & networking		.20	20.00		.00	.00		.27	27.00	-	0.15	0
19. RMO petition / gathering		.27	27.00		.00	.00		.17	17.00	-	0.14	0
Total	0.94	0.84	10.63	0.99	0.93	-6.06	0.80	0.93	16.25	0.91	0.92	1.09

Table A-14: Effectiveness Change of Communication Activities of General Villagers

MACH Communication Intervention	Average Awareness Score under Different Site									Overall Awareness Score		
	HH			KM			TB					
	Follo w-Up 2005	End - line	Increa se %	Follo w-Up 2005	End - line	Increa se %	Follo w-Up 2005	End - line	Increase %	Follo w-Up 2005	End - line	Increase %
1. Courtyard Meeting	1.8	1.83	1.66	1.63	1.67	2.45	1.37	1.57	14.59	1.60	1.69	5.62
2. Community Meeting	1.23	0.60	-51.21	1	1.13	13	1.07	0.97	-9.34	1.10	.90	-18.18
3. MACH Project Meeting	0.93	0.83	-10.75	1.1	1.63	48.18182	0.83	0.60	-27.71	0.96	1.02	6.25
4. Briefing Session	0.57	0.43	-24.56	0.53	1.47	177.3585	0.37	0.50	35.13	0.49	.80	63.26
5. Important Day	0.87	0.83	-4.59	1.07	1.17	9.345794	0.57	0.97	70.17	0.83	.99	19.27
6. Rally	1.37	1.17	-14.59	1.37	1.30	-5.10949	0.67	1.03	53.73	1.13	1.17	3.53
7. Environment Education	0.47	0.67	42.55	0.6	.27	-55	0.1	0.37	270.00	0.39	.43	10.25
8. Live Drama	1.47	1.13	-23.12	1.9	1.43	-24.7368	1.83	1.53	-16.39	1.73	1.37	-20.80
9. Folk song	0.43	1.27	195.34	0.67	1.37	104.4776	0	1.10	110.00	0.37	1.24	235.13
10. Miking	1.47	1.90	29.25	2.27	1.97	-13.2159	1.87	1.50	-19.78	1.87	1.79	-4.27
11. Drawing	0.1	0.03	-70.00	0	0.20	20	0.07	0.10	42.85	0.06	.11	83.33
12. Quiz	0.13	0.20	53.84	0.13	0.00	-100	0	0.03	3.00	0.09	.08	-11.11
13. Essay	0	0.30	30.00	0.03	0.00	-100	0	0.07	7.00	0.01	.12	1100
14. TV Program	1.17	0.67	-42.73	0.87	0.87	0	0.87	0.43	-50.57	0.97	.66	-31.95
15. Video show	0.7	0.87	24.28	0.27	0.00	-100	0.03	0.47	1466.66	0.33	.44	33.3
16. Fair/Exhibition	0.33	0.20	-39.39	0.33	0.23	-30.303	0.03	0.67	2133.33	0.32	.37	15.62
17. MACH Workshop		0.03	3.00		0.00	0		0.37	37.00	-	.13	13
18. Visits to other sites & networking		0.13	13.00		0.00	0		0.17	17.00	-	.10	10
19. RMO petition / gathering		0.20	20.00		0.00	0		0.17	17.00	-	.12	12
Total	0.82	0.69	-15.85	0.86	0.77	-10.46	0.61	0.66	8.19	0.77	0.71	-7.79

Table A-15: Awareness Level about MACH Communication Materials

MACH Communication Materials	Average Awareness Score											
	Very High (4)	%	High (3)	%	Average (2)	%	Very little (1)	%	Not at all (0)	%	Total	%
1. Posters (4 types)	27	8.6	120	38.1	146	46.3	21	6.7	1	.3	315	100
2. Folders (2 types)	4	1.3	16	5.1	40	12.7	29	9.2	226	71.7	315	100
3. Booklet	1	.3	9	2.9	24	7.6	13	4.1	268	85.1	315	100
4. Coat Pin	3	1.0	15	4.8	20	6.3	23	7.3	254	80.6	315	100
5. T-shirt	13	4.1	71	22.5	138	43.8	32	10.2	61	19.4	315	100
6. Signboards (4 types)	7	2.2	107	34.0	98	31.1	16	5.1	87	27.6	315	100
7. MACH Documentary (Bangla)	8	2.5	43	13.7	45	14.3	14	4.4	205	65.1	315	100
8. Handbills (3 types)	5	1.6	14	4.4	51	16.2	28	8.9	217	68.9	315	100
9. MACH Cap	16	5.1	78	24.8	113	35.9	41	13.0	67	21.3	315	100
10. Wall Painting	5	1.6	41	13.0	80	25.4	19	6.0	170	54.0	315	100
11. Education Materials (Wetland Messages)	18	5.7	140	44.4	72	22.9	13	4.1	72	22.9	315	100
12. MACH Bag	9	2.9	34	10.8	73	23.2	36	11.4	163	51.7	315	100
13. Newsletters	1	.3	15	4.8	17	5.4	15	4.8	267	84.8	315	100
14. Leaflets (6 types)	11	3.5	23	7.3	48	15.2	23	7.3	210	66.7	315	100
15. RMO produced leaflets, books & others	15	4.7	34	10.7	63	20.0	12	3.8	191	60.8	315	100
Total	9.53	3.02	50.66	16.08	68.53	21.75	22.33	56.63	163.93	52.06	315	100

Table A-16: Effectiveness of MACH Communication Materials

MACH Communication Materials	Average Effectiveness Score											
	Very High (4)	%	High (3)	%	Average (2)	%	Very little (1)	%	Not at all (0)	%	Total	%
1. Posters (4 types)	11	3.5	84	26.7	113	35.9	105	33.3	2	.6	315	100
2. Folders (2 types)	-	-	11	3.5	24	7.6	41	13.0	239	75.9	315	100
3. Booklet	-	-	8	2.5	9	2.9	23	7.3	275	87.3	315	100
4. Coat Pin	2	.6	6	1.9	19	6.0	25	7.9	263	83.5	315	100
5. T-shirt	8	2.5	23	7.3	117	37.1	97	30.8	70	22.2	315	100
6. Signboards (4 types)	2	.6	43	13.7	116	36.8	66	21.0	88	27.9	315	100
7. MACH Documentary (Bangla)	2	.6	36	11.4	37	11.7	30	9.5	210	66.7	315	100
8. Handbills (3 types)	4	1.3	10	3.2	27	8.6	56	17.8	218	69.2	315	100
9. MACH Cap	13	4.1	26	8.3	116	36.8	86	27.3	74	23.5	315	100
10. Wall Painting	15	1.6	18	5.7	79	25.1	37	11.7	176	55.9	315	100
11. Education Materials (Wetland Messages)	5	1.6	82	26.0	104	33.0	51	16.2	73	23.2	315	100
12. MACH Bag	4	1.3	16	5.1	44	14.0	74	23.5	177	56.2	315	100
13. Newsletters	-	-	10	3.2	14	4.4	16	5.1	275	87.3	315	100
14. Leaflets (6 types)	5	1.6	18	5.7	41	13.0	38	12.1	213	67.6	315	100
15. RMO produced leaflets, books & others	4	1.3	32	10.2	44	14.0	40	12.7	195	61.9	315	100
Total	5	1.37	28.2	8.96	60.26	19.12	52.33	16.61	169.86	53.92	315	100

Table A-17: Awareness change of RMO Members about MACH Communication Materials

MACH Communication Materials	Average Awareness Score under Different Site									Overall Awareness Score		
	HH			KM			TB			Follow-up 2005	End-line	Increase %
	Follo w-up 2005	End - line	Increa se %	Follo w-up 2005	End - line	Increa se %	Follo w-up 2005	End - line	Increase %			
Posters (4 types)	2.44	2.73	12.02	2.22	2.52	13.63	2.36	2.93	24.29	2.34	2.73	16.66
Folders (2 types)	0.18	0.91	406.17	0.09	0.90	910.10	0.11	0.97	788.88	0.13	.94	623.07
Booklet	0.13	0.55	327.35	0.53	0.13	-74.27	0.16	0.75	372.22	0.27	.48	77.77
Coat Pin	0	0.66	66	0.07	0.54	679.22	0	0.73	73	0.02	.64	3100
T-shirt	0.44	2.4	445.45	0.76	1.72	127.27	0.47	2.37	405.91	0.56	2.17	287.5
Signboards (4 types)	2.31	2.28	-0.91	2.71	2.20	-18.65	2.53	1.6	-36.75	2.52	2.01	-20.23
MACH Documentary (Bangla)	0.76	1.31	72.51	0.62	1	61.29	0.11	1.6	1354.54	0.5	1.30	160
Handbills (3 types)	0.62	1.11	79.21	0.31	0.68	119.94	0.38	1.11	192.39	0.44	.97	120.45
MACH Cap	1.8	2.28	27.16	1.22	2.02	65.79	1.29	2.53	96.38	1.44	2.28	58.33
Wall Painting	0.09	0.95	961.72	0	1.06	106	0.22	1.73	687.87	0.1	1.27	1170
Education Materials (Wetland Messages)	2.27	2.37	4.74	2.38	1.93	-18.83	2.51	2.6	3.58	2.39	2.29	-4.18
MACH Bag		1.55	155		1.11	111		1.37	137	-	1.34	134
Newsletters		0.64	64		0.22	22		0.71	71	-	.53	53
Leaflets (6 types)		1.44	144		0.90	90		1.26	126	-	1.20	120
RMO produced leaflets, books & others		1.4	140		1.59	159		1.57	157	-	1.53	153
Total (Average)	1.00	1.50	50.00	0.99	1.23	24.24	0.92	1.59	72.82	0.97	1.44	48.45

Table A-18: Effectiveness change of MACH Communication Materials of RMO members

MACH Communication Materials	Average Effectiveness Score under Different Site									Overall effectiveness Score		
	HH			KM			TB			Follo w –up 2005	End - line	Increas e %
	Follo w –up 2005	End - line	Increas e %	Follo w –up 2005	End - line	Increas e %	Follo w –up 2005	End - line	Increas e %			
Posters (4 types)	2.07	2.18	5.20	1.91	2.23	16.611	2.02	2.60	28.71	2	2.33	16.79
Folders (2 types)	0.16	0.73	358.33	0.09	0.77	758.58	0.09	0.62	591.35	0.11	0.70	544.50
Booklet	0.13	0.47	258.97	0.49	0.11	-76.80	0.16	0.51	219.44	0.26	0.36	40.64
Coat Pin	0	0.58	57	0.07	0.45	549.35	0	0.53	53	0.02	0.52	2511.94
T-shirt	0.38	1.89	397.07	0.71	1.30	82.45	0.36	1.93	437.03	0.48	1.70	256.03
Signboards (4 types)	2.04	1.69	-17.21	2.47	1.91	-22.70	2.11	1.33	-36.80	2.21	1.64	-25.71
MACH Document ary (Bangla)	0.76	1.09	43.27	0.6	0.82	36.36	0.11	1.40	1172.72	0.49	1.10	125.40
Handbills (3 types)	0.56	.91	62.69	0.24	0.59	146.21	0.33	.87	162.62	0.38	0.79	108.16
MACH Cap	1.49	1.80	20.80	1.02	1.73	69.34	1.11	2.22	100.20	1.21	1.91	58.50
Wall Painting	0.04	.80	1900	0	.084	84.00	0.2	1.51	655.55	0.08	1.05	1215.29
Education Materials (Wetland Messages)	1.96	1.91	-2.49	2.13	1.70	-19.97	2.09	2.22	6.32	2.06	1.94	-5.44
MACH Bag		1.22	122.00		.82	81.00		1.07	107		1.03	103.00
Newslette rs		0.56	55.00		.14	13.00		0.60	60.00		0.43	43.00
Leaflets (6 types)		1.18	118.00		0.84	84.00		1.02	102.00		1.01	101.00
RMO produced leaflets, books & others		1.07	107.00		1.30	130.00		1.29	129.00		1.21	121.00
Total	0.87	1.20	37.93	0.88	1.03	17.04	0.78	1.31	67.94	0.85	1.18	38.82

Table A-19: Awareness of RUG Members about MACH Communication Materials

MACH Communication Materials	Average awareness Score under Different Site									Overall awareness Score		
	HH			KM			TB					
	Follow-up 2005	End-line	Increase %	Follow-up 2005	End-line	Increase %	Follow-up 2005	End-line	Increase %	Follow-up 2005	End-line	Increase %
Posters (4 types)	2.4	2.67	11.11	1.77	2.23	26.17	1.93	2.73	41.62	2.03	2.54	25.12
Folders (2 types)	0.2	0.53	166.66	0.07	0.30	328.57	0.13	0.60	361.53	0.13	.48	269.23
Booklet	0.1	0.20	20.00	0.03	0.03	11.11	0.03	0.43	1344.44	0.06	.22	266.66
Coat Pin	0	0.40	40.00	0.07	0.10	42.85	0	0.40	40.00	0.02	.30	1400
T-shirt	0.37	1.57	323.42	0.47	2.00	325.53	0.43	2.37	450.38	0.42	1.98	371.42
Signboards (4 types)	2.3	1.60	-30.43	2.47	2.20	-10.93	2.17	1.17	-46.23	2.31	1.66	-28.13
MACH Documentary (Bangla)	0.67	0.97	44.27	0.4	0.10	-75	0.03	1.13	3677.77	0.37	.73	97.29
Handbills (3 types)	0.63	0.50	-20.63	0.27	0.43	60.49	0.27	0.60	122.22	0.39	.51	30.76
MACH Cap	1.6	1.63	2.08	1.1	1.93	75.75	1.1	2.17	96.96	1.27	1.91	50.39
Wall Painting	0.1	0.80	700	0	.97	96	0.1	1.83	1733.33	0.07	1.20	1614.28
Education Materials (Wetland Messages)	2.07	2.00	-3.38	2.27	2.13	-6.02	2.27	2.20	-3.08	2.2	2.11	-4.09
MACH Bag		0.87	87.00		1.50	150		1.07	106	-	1.14	114
Newsletters		0.27	27.00		0.13	13.00		0.47	47.00	-	.29	29
Leaflets (6 types)		0.67	67.00		0.47	47.00		0.87	87.00	-	.67	67
RMO produced leaflets, books & others		1.03	103		0.43	43.00		1.13	113.00	-	.87	87
Total	0.95	1.04	9.47	0.81	0.99	22.22	0.77	1.27	64.93	0.84	1.10	30.95

Table A-20: Effectiveness change of MACH Communication Materials of RUG members

MACH Communication Materials	Average effectiveness Score under Different Site									Overall effectiveness Score		
	HH			KM			TB					
	Follow-up 2005	End-line	Increase %	Follow-up 2005	End-line	Increase %	Follow-up 2005	End-line	Increase %	Follow-up 2005	End-line	Increase %
Posters (4 types)	1.8	2.17	20.37	1.7	1.63	-3.92	1.6	2.20	37.5	1.7	2.00	17.64
Folders (2 types)	0.17	0.27	56.86	0.07	0.20	185.71	0.03	0.37	1122.22	0.09	.28	211.11
Booklet	0.1	0.10	00	0.03	.00	-100	0.03	0.30	900.00	0.06	.13	116.66
Coat Pin	0	.23	23.00	0.07	.00	-100	0	0.30	30	0.02	.18	800
T-shirt	0.3	1.17	288.88	0.47	1.40	197.87	0.37	1.80	386.48	0.38	1.46	284.21
Signboards (4 types)	1.93	1.17	-39.55	2.17	1.67	-23.19	1.63	0.93	-42.74	1.91	1.26	-34.03
MACH Documentary (Bangla)	0.57	.87	52.04	0.43	.00	-100	0.03	0.90	2900	0.34	.59	73.52
Handbills (3 types)	0.53	.33	-37.10	0.2	.43	116.66	0.3	0.43	44.44	0.34	.40	17.64
MACH Cap	1.27	1.30	2.36	1.07	1.53	43.30	0.9	1.57	74.07	1.08	1.47	36.11
Wall Painting	0.07	.60	757.14	0	.80	80	0.1	1.50	1400	0.06	.97	1516.66
Education Materials (Wetland Messages)	1.6	1.57	-2.08	1.9	1.70	-10.52	1.83	1.80	-1.63	1.78	1.69	-5.05
MACH Bag		0.60	60.00		0.97	96.00		0.63	63.00	-	.73	73
Newsletters		0.23	23.00		.00	00		0.30	30.00	-	.18	18
Leaflets (6 types)		0.73	73.00		0.33	33.00		0.70	70.00	-	.59	59
RMO produced leaflets, books & others		0.87	87.00		0.33	33.00		0.90	90.00	-	.70	70
Total	0.76	0.81	6.57	0.74	0.73	-1.35	0.62	0.97	56.45	0.71	0.84	18.30

Table A-21: Awareness Level change of GV about MACH Communication Materials

MACH Communication Materials	Average Awareness Score under Different Site									Overall Awareness Score		
	HH			KM			TB					
	Follo w –up 2005	End - line	Incre ase %	Follo w –up 2005	End - line	Increa se %	Follo w –up 2005	End - line	Increa se %	Follo w –up 2005	End - line	Increas e %
Posters (4 types)	1.73	2.07	19.65	1.63	1.90	16.56	1.73	2.17	25.43	1.7	2.04	20
Folders (2 types)	0.07	0.03	-57.14	0.13	.00	-100	0	0.07	7.00	0.07	.03	-57.14
Booklet	0.13	0.03	-76.92	0.13	.00	-100	0.07	0.20	185.71	0.11	.08	-27.27
Coat Pin	0	0.13	13	0.1	.00	-100	0	0.07	7.00	0.03	.07	133.33
T-shirt	0.43	0.97	125.58	0.23	.97	321.73	0.13	1.47	1030.76	0.27	.85	214.8
Signboards (4 types)	2.0	2.63	31.5	2.33	2.50	7.29	2.23	2.53	10.31	2.19	2.56	16.89
MACH Documentary (Bangla)	0.27	0.23	-14.81	0.17	.00	-100	0	.57	57	0.14	.27	92.85
Handbills (3 types)	0.3	0.17	-43.33	0.03	0.07	133.33	0.2	.27	35	0.18	.17	-5.55
MACH Cap	1.47	0.63	-57.14	0.77	0.87	12.98	0.63	1.33	111.11	0.96	.94	-2.08
Wall Painting	0	0.53	53.00	0	0.60	60.00	0.1	.30	200	0.03	.03	0
Education Materials (Wetland Messages)	1.3	1.67	28.46	1.7	1.37	-19.41	1.83	1.97	7.65	1.61	1.67	3.72
MACH Bag		0.37	37.00		0.27	27.00		0.57	57.00	-	.10	10
Newsletters		0.03	3.00		0.00	00		0.00	0	-	.01	1
Leaflets (6 types)		0.20	20.00		0.07	7.00		0.07	7.00	-	.11	11
RMO produced leaflets, books & others		.00	00		.13	13.00		0.30	30.00	-	.14	14
Total	0.70	0.57	-18.57	0.66	0.51	-22.72	0.63	0.72	14.28	0.66	0.62	-6.06

Table A-22: Effectiveness of MACH Communication Materials of General Villagers

MACH Communication Materials	Average Effectiveness Score under Different Site									Overall effectiveness Score		
	HH			KM			TB					
	Follow-up 2005	End-line	Increase %	Follow-up 2005	End-line	Increase %	Follow-up 2005	End-line	Increase %	Follow-up 2005	End-line	Increase %
Posters (4 types)	1.37	1.6	16.78	1.33	1.33	0.25	1.2	1.46	22.22	1.3	1.47	13.07
Folders (2 types)	0.07	0	-100	0.13	0	-100	0	0	0	0.07	.00	-100
Booklet	0.13	0	-100	0.13	0	-100	0.07	0.13	90.47	0.11	.04	-63.63
Coat Pin	0	0.06	6.00	0.1	0	-100	0	0.03	3	0.03	.03	0
T-shirt	0.45	0.6	33.33	0.2	0.73	266.66	0.13	1.00	669.23	0.26	.78	200
Signboards (4 types)	1.67	2.16	29.34	1.87	1.66	-11.22	1.6	1.88	13.25	1.71	1.81	5.64
MACH Documentary (Bangla)	0.23	0.16	-27.53	0.17	00	-100	0	0.46	46	0.13	.21	61.53
Handbills (3 types)	0.3	0.2	-33.33	0.03	0.06	122.22	0.2	0.16	-16.66	0.18	.14	-22.22
MACH Cap	1.1	0.3	-72.72	0.6	0.66	11.11	0.33	0.93	182.82	0.68	.63	-7.35
10. Wall Painting	0	0.53	53	0	0.5	50	0.1	0.26	166.66	0.03	..23	666
Education Materials (Wetland Messages)	1.23	1.26	2.98	1.27	0.96	-23.88	1.4	1.5	7.14	1.3	1.10	-4.61
MACH Bag		0.16	16.00		0.16	16.00		0.36	36.00	-	.10	10
Newsletters		0	00		0	00		0	00	-	.00	0
Leaflets (6 types)		0.06	6.00		0.03	3.00		0.06	6.00	-	.06	6
RMO produced leaflets, books & others		0	0		0.13	13.00		0.26	26.00	-	.13	13
Total	0.60	0.40	-33.33	0.53	0.36	-32.07	0.46	0.52	13.04	0.53	0.52	-1.88

Study on Assessment of MACH Awareness Activities and Overall Community Awareness Regarding Wetland Resource and Bio-Diversity Conservation Issue

(Questionnaire for UNO, UFO and UP Chairman)

HH	TB	KM
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Sample No.			
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100. General Information t

100.1 Name of the Respondent:

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100.2 Designation:

--	--

100.3 Work Place:

--	--

100.4 Involvement with MACH Project in month/year:.....

--	--

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

200. Opinion on MACH Project Activities

200.1 Mention your awareness level about MACH Project Goal and Objectives in the following scale t

(a) Very high (4)

--

(b) High (3)

--

(c) Average (2)

--

(d) Very little (1)

--

(e) Not at all (0)

--

200.2 Mention your knowledge/understanding level about Communication activities initiated by the MACH project and its effectiveness in the scale of 0 – 4 (0 = Not at all, 1= Very Little, 2= Average, 3= High, 4= Very High) †

	<u>Awareness Level</u>	<u>Effectiveness *</u>
200.1 Courtyard Meeting	<input type="text"/>	<input type="text"/>
200.2 Community Level Meeting	<input type="text"/>	<input type="text"/>
200.3 MACH Project Introductory Meeting	<input type="text"/>	<input type="text"/>
200.4 Briefing Session for different Stakeholders	<input type="text"/>	<input type="text"/>
200.5 Important Day Observance	<input type="text"/>	<input type="text"/>
200.6 Rally	<input type="text"/>	<input type="text"/>
200.7 Environment Education in School	<input type="text"/>	<input type="text"/>
200.8 Live Drama	<input type="text"/>	<input type="text"/>
000.9 Folk Song	<input type="text"/>	<input type="text"/>
200.10 Miking	<input type="text"/>	<input type="text"/>
200.11 Drawing Competition	<input type="text"/>	<input type="text"/>
200.12 Quiz Competition	<input type="text"/>	<input type="text"/>
200.13 Essay Competition	<input type="text"/>	<input type="text"/>
200.14 TV Programs	<input type="text"/>	<input type="text"/>
200.15 Video Show on Wetland Resources	<input type="text"/>	<input type="text"/>
200.16 Fair/Exhibition/Stalls	<input type="text"/>	<input type="text"/>
200.17 MACH Workshop	<input type="text"/>	<input type="text"/>
200.18 Visits to other sites & networking	<input type="text"/>	<input type="text"/>
200.19 RMO petition / gathering	<input type="text"/>	<input type="text"/>

(of activity; 1 = Very Little (heard about it); 2 = Average (someone in household saw/attended but don't know/forgot any messages), 3 = High (participated/saw and remember something), 4=Very High (attended/saw and remember messages)]

[*Effectiveness use 5 point ladder scale from 0 not at all effective/couldn't understand, to 4 highly effective – changed my opinions. Scoring will not be applicable for the respondents who score zero (0) on awareness about the above communication activities of MACH project]

200.3 Mention your understanding and roles/initiatives about the awareness Messages and Materials used in MACH Project along with its effectiveness in the scale of 0 to 4
[0 = Not at all, 1 = Very Little, 2 = Average, 3 = High, 4=Very High]

SI	Messages	Understanding Level and Roles/Initiatives	Materials Used	Effectiveness of Materials
1	1.1 Establish sanctuary, ensure fish habitat 1.2 Stop hunting birds, save all varieties 1.3 Increase alternative income, for reduce presser on fishing 1.4 Management of sanctuary, increase fish increase income 1.5 Save fish reservation by limited fishing 1.6 Plant trees by the side of cannel, let protect beel sedimentation 1.7 Shall not catch spawn fish, shall not break the law 1.8 Save bio-diversity to live all 1.9 Wetlands becoming diminish, save it by us 1.10 Keep eyes open otherwise no way to safe wetland 1.11 Stop using current nets save the lineage of fish 1.12 Group organize, live by alternative income		MACH Calendar 2005 (Twelve Pages Calendar)	
2	2.1 Catch no fish in Baishak and Jaishta, a happy life will follow for twelve months 2.2 If spawn-rich fishes are caught, the country will face serious problems 2.3 Shall not destroy the lineage of fish 2.4 Shall not catch spawn fish, shall not harm to the Country 2.5 We all be aware, shall save hail haor 2.6 Save environment save the country 2.7 Save the habitat of fish, fill the need of nutrition 2.8 Stop hunting birds, save all varieties 2.9 Save bio-diversity stop using current nets 2.10 Save the spawn fish 2.11 Shall not catch spawn fish, shall not catch brood fish 2.12 Shall not drain out all beels, wells and shallow water bodies, shall not catch all fish 2.13 Establish sanctuary, ensure fish habitat 2.14 Establish sanctuary, ensure birds habitat 2.15 Stop hunting migratory bird 2.16 Plant trees by the side of the house 2.17 Save the natural resources of hail haor 2.18 Let the hail haor live, let the water flow in the haor 2.19 Plant trees by the side of stream (Chora), let the river remain zigzag 2.20 Open the route of fish movement 2.21 Stopped catching spawn fish 2.22 Our world is our future, let it live 2.23 Excavate khals and beels, save the habitat of fish 2.24 Come, let us concertedly save the wetland resources		Festoon, Placards (Used in Day Observance, Rally, Workshop, Meeting, Govt. office etc.)	
3	3.1 Establish sanctuary, ensure fish habitat 3.2 Shall not drain out all beels, shall not catch all fish 3.3 Stop hunting birds, save all varieties		Signboards, Wall paintings	

Sl	Messages	Understanding Level and Roles/Initiatives	Materials Used	Effectiveness of Materials
4	<p>4.1 Migratory bird hunting is illegal 4.2 Establish sanctuary for fish habitat 4.3 Stop Hunting birds Save Biodiversity 4.4 Let us protect wetland resources</p> <p>4.5 Fish : Many species of fish and prawns inhabit in the wetlands, which provide us animal protein. Many families subsist on fishing</p> <p>4.6 Agriculture Irrigation: Wetlands play major roll in dry season irrigation and reduce soil degradation by washing out pesticides/insecticides</p> <p>4.7 Navigation: Wetlands are means of transportation in the rural Bangladesh</p> <p>4.8 Vegetation: Wetland plants provide many benefits including food, fodder, fuel and medicine</p> <p>4.9 Daily use: Wetland is a major source of water for bathing, cooking, livestock rearing and jute retting</p> <p>4.10Flood Control: Wetlands reduce flood by storing rain water/flash floodwater</p> <p>4.11 Wetlands are degrading due to natural and man made causes 4.11Let us protect wetlands</p>		Khata (Printed) (Using Environmental Education Program at primary school students)	
5	<p>5.1 Stop hunting 5.2 Save threatened species 5.3 Save brood fish 5.4 Restoration of habitats 5.5 Save biodiversity 5.6 Follow fish lows 5.7 Establishment sanctuary 5.8 More Plantation</p>		Through Quiz	
6	<p>6.1 Protect wetland resources 6.2 Save Hail Haor</p>		Sun Cap	
7	<p>7.1 Fisheries Norms</p>		Signboards	
8	<p>8.1 Stop hunting 8.2 Save threatened species 8.3 Save brood fish 8.4 Restoration of habitats 8.5 Save biodiversity 8.6 Follow fish lows 8.7 Establishment sanctuary 8.8 More Plantation</p>		Boul Song	
9	<p>8.6 Save threatened fish species Total 54 fish species are threatened in fresh water 8.7 Plant trees and save it</p>		Poster (Benefits of trees)	

300. Who shared MACH messages with you and what medias have been used for disseminating the messages t

Messages shared by

Name of the Medias

(a)

.....

(b)

.....

(c)

.....

400. Mention about the specific roles played by the MACH partners along with their effectiveness in the scale of 0 – 4 (0 = Not at all, 1= Very Little, 2= Average, 3= High, 4= Very High) t

**Roles/Responsibilities
Performed
in the Area of Communion**

**Effectiveness
Level**

400.1 Bangladesh Center for Advanced Studies (BCAS)

400.2 Center for Natural Resource Studies (CNRS)

400.3 CARITAS Bangladesh

500. Please mention the problems and weaknesses of MACH project regarding communication media and materials for disseminating messages relating to wetland resources and MACH approach to the stakeholders and general community :

Sl. No.	Areas of Problems/Weaknesses
1.	
2.	
3.	
4.	
5.	

600. Please mention your suggestions to overcome the problems/weakness t

Sl. No.	Suggested Recommendations
1.	
2.	
3.	
4.	
5.	

700. Please mention other specific comments (if any) t

(a)

(b)

(c)