"Fisheries Conflicts Communication Framework: A tool for developing plans and strategies for managing fisheries conflicts (*FishCom*)

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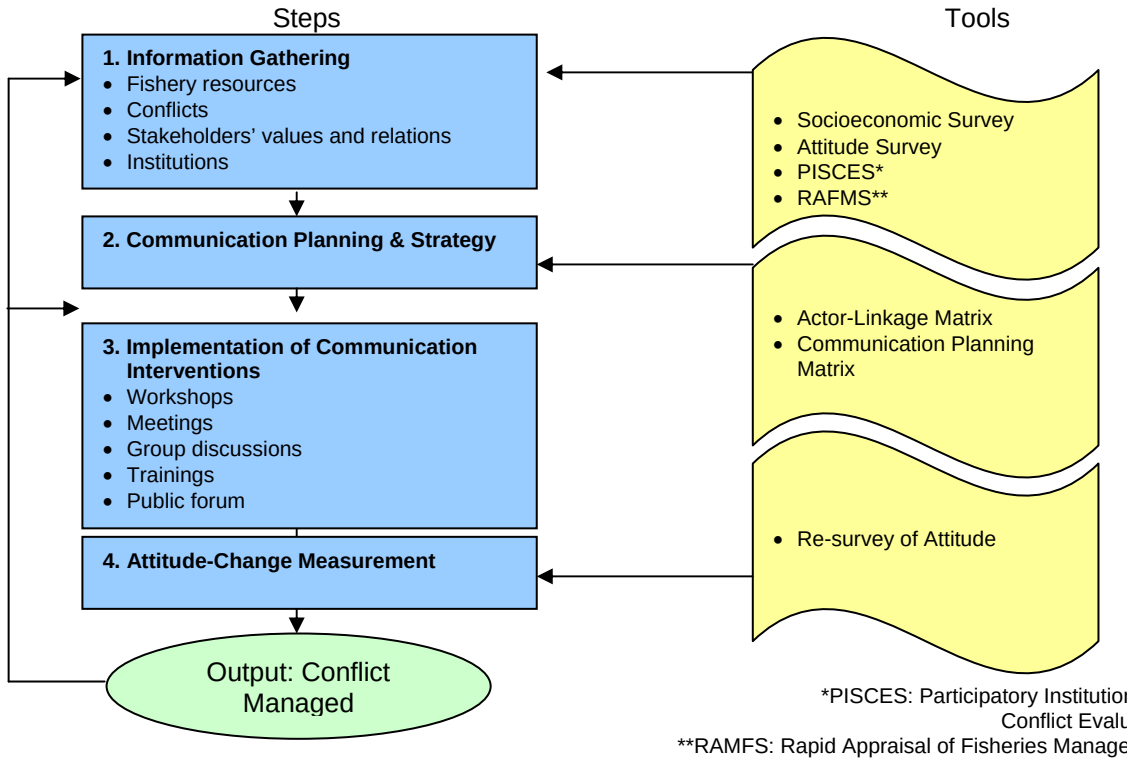
Abstract

The approaches to fisheries management were not without problems when implemented. Conflicts arise due to diversity of interests, values, priorities and manners of exploitation amongst resource users. Conflicts also emanate from institutional failures in managing the fisheries and enforcing laws and regulations. The *FishCom* is a structured participatory process intended for policy makers and conflict management practitioners as they have important roles in catalyzing and effecting changes that are instrumental in minimizing, if not totally eliminating conflicts. It was developed through testing and evaluation of a series of communication steps and corresponding tools in case study sites in Bangladesh, Cambodia and India. The framework ensures that actions and decisions arising from participatory activities have a good chance of being taken up by relevant stakeholders and organizations. The four major steps are information gathering, communication planning and strategy, implementation of communication interventions, and attitude change measurement.



*PISCES: Participatory Institutional Survey and Conflict Evaluation Exercise
**RAMFS: Rapid Appraisal of Fisheries Management Systems

Brief Description of the *FishCom*: Steps and Tools

The *Fisheries Conflicts Communication Framework: A tool for developing plans and strategies for managing fisheries conflicts (FishCom)* organized the steps that could be tested and adapted by groups of fishery stakeholders involved or interested in managing conflicts. The four major steps are:

1) Information Gathering
This step was meant to organize and understand key issues related to the conflict and its causes, stakeholders and their relationships. The tools include: Socioeconomic Survey, Attitude Survey Statements, PISCES, and Rapid Appraisal of Fisheries Management Systems (RAFMS).

2) Communication Planning & Strategy
This step was designed to organize methods for communicating conflicts to a variety of stakeholders. The tools include Actor-linkage Matrix (ALM) and Communication Planning Matrix (CPM). The ALM is an approach used to map information and flows of information amongst key stakeholders. The CPM involved a set of communication activities designed to meet specific objectives amongst specified communication partners or stakeholders.

3) Implementation of Communication Interventions
This step guided the conduct of selected communication interventions to resolve conflicts. The actionable interventions were evaluated and pre-implementation activities were arranged and acted upon based on the plan. Typically, the cost and logistical arrangements of physical and human resources were crucial factors considered in the implementation of communication interventions.

4) Attitude-Change Measurement
This step was meant to measure changes in attitudes toward conflict resolution and consensus as influenced by communication interventions. This step involved a comparative evaluation of the outcomes of responses to the *Attitude Survey Statements* elicited in an *ex-post* survey with the outcomes of the *ex-ante* attitude survey.

Detailed Description of *FishCom* Steps and Pro-Forma Tools

1. Information Gathering

This step applies various rapid appraisal and assessment approach for data collection and information gathering stage (e.g. socioeconomic survey, attitude survey, and combination of techniques used in PISCES and RAFMS such as observations, semi-structured interviews, transects, participatory mapping, diagrams, making comparisons).

- **Socioeconomic Study -** a baseline study of the project site to enable compilation of databases for better understanding of the profile of the study area. The information needed include profile of respondents, fishing resources, gears used for fishing operations, knowledge of the fishery, institutional linkages and media exposure of the community. This information is important when addressing fisheries conflicts, views and perceptions of the community towards conflicts and for understanding of the relationship of respondents to their cultural and social background. The formulation of specific pro-forma survey forms is needed to focus and elicit the important information needed, avoiding lengthy surveys where some data are not relevant.

- **Attitude Survey** – is conducted to gain a better insight and understanding of the conditions, values and priorities of the fishers and conflict managers on issues related to fisheries conflicts. The outcome of the attitude survey serves as a basis for evaluating the behavior of the stakeholders. This would enable the perception of the fishers and various stakeholders to be incorporated in the communication strategy for managing fisheries conflicts. The attitude survey conducted at all project sites used a standard set of questions. The attitude survey can be conducted using face to face meetings, group discussions or multi-stakeholder workshops. For the more literate stakeholder group the survey forms could be distributed or posted, filled in and submitted at prescribed later date. A sample form used for this Project was created with intentions for a combined Socioeconomic Survey and an Attitude Survey, and to be used again for the Re-survey of Attitude (see Table 3 at the end of this poster).

- **Participatory Institutional Survey and Conflict Evaluation Exercise (PISCES) -** is a tool developed by Bennett and Jolley in April 2000. PISCES is the combination of different tools such as participatory geographic information exercise, timeline exercise, identification of communication partners and a semi-structured interview. (Bennett et al. 2001). PISCES worked well when applied in fishing communities as it is a simple, rapid and comprehensive tool which helped in collecting important information on conflicts. PISCES also allows for multi-stakeholder group discussions, meetings or workshops. The need to involve all parties through a participatory approach is important to reach a consensus in formulating plans and actions to resolve conflicts.

- **Rapid Appraisal of Fisheries Management Systems (RAFMS)**- is a participatory appraisal tool involving key stakeholders from among local researchers and members of the fishing community. A rapid appraisal methodology can be useful as a critical first step in documenting and evaluating the existing informal (including traditional) fisheries management systems in a coastal community, and its relationship with the more formal fisheries management systems administered by the state authorities (Pido et al. 1996). RAFMS was designed as a research tool to extract important information required by the research community in a short time frame adopting a consultative mode. It is a suitable technique to be used to link researchers to the local community. The local communities provide a rich source of information which is analyzed using other rapid appraisal techniques. RAFMS was successfully applied project sites in Indonesia and the Philippines (Pido et. al 1996).

2. Communication Planning & Strategy

The planned use of communication channels in development has traditionally been seen in terms of the linear transfer of information and knowledge to various audiences, with the aim of influencing knowledge, attitudes and practices. The communication framework does not just entail the identification of messages to convey to a defined audience, and the media through which to convey them but it includes planning to improve access, to provide mediation between providers and users of information (Garforth 2001) and to use complementary methods to facilitate dialogue. This recent shift in communication – planning and implementation – formed the basis for the initial development of the communications strategy. The adaptation of the methods used in the respective countries was based on the type of conflicts and stakeholders involved. The understanding of the conflict, identification of stakeholders and assisted in the formulating of a country specific communication plan used to address the conflicts at the respective project sites.

Aside from using available data gathering tools, *FishCom* also introduced two tools to help in planning communication, i.e. Actor-linkage matrix (ALM) and the Communication Planning Matrix-Communication Strategy (CPM-CS). These tools can be used for both purposes i.e. in managing fisheries conflicts; and in making sure research findings are promoted so that they have a good chance of being taken up by relevant people and organizations.

- **Actor-linkage matrix (ALM)** - is an approach to map information and flows of information between key stakeholders. Stakeholders are called as actors. "Actors" are those who play – or should play – an active role in a particular situation. The actors are identified using other participatory approaches in information gathering. The matrix presents a map of the linkages between the different sets of actors in a given situation. The actors are listed along the top and down the side of a square matrix. Each cell in the matrix then represents the linkage (existing and/or potential) between a pair of actors. The cells are used to record details or observations relevant to the task in hand. When used to plan communication for fisheries conflict management, a cell are used to record the constraints that are restricting or distorting communication between each pair of actors; and to give a rating of the importance of a particular interaction to establish priorities. Relevant actors to include in an ALM would be users of the fishery resource, district and provincial administrators, NGOs working with the fisher communities, policy-makers and administrators in the central government. Table 1 illustrates a typical ALM for fisheries conflict management and an example of how communication between community fishers and central government is recorded using an ALM Matrix. The cells below the diagonal can be used to record information about or assessments of communication from the actor on the left to the actor on the top and vice versa. Cells in the diagonal represent the communication between the same actors.

Table 1. Actor-Linkage Matrix for Fisheries Conflict Management (template)

To From	Community Fishers	DOF Officials	Police	NGO's	Central Government
Community Fishers					
DOF Officials					
Police					
NGO's					
Central Government					

- **Communication planning matrix (CPM) -** is specifically used for developing a communication strategy. A strategy is a planned set of communication activities designed to meet specific objectives among specified communication partners or stakeholders. The CPM has four columns. The first identifies the communication partners with whom a particular organization or project wants to communicate. The second lists the objectives of communicating with each set of partners. The third suggests the content of the communication to attain the objectives. The fourth column indicates the methods or channels through which the communication with each partner could be conducted most effectively. In order to resolve conflicts there is a need to communicate with several partners, many of whom are the same as the actors identified in the ALM above. For each stakeholder, the objective of the communication has to be established. Generally, these objectives would be to identify the source and cause of conflicts, to create awareness among the fishers for conflict resolution, to reduce the use of illegal gear, etc. Once the objectives are agreed, the content of the communication should be determined before identifying the most effective ways of communicating with each of the communication partners. This CPM is used by the project executants as a planning tool compiled as a result of multi-stakeholders group meetings, consultations or workshops.

- **Communication Strategy (CPM-CS) -** is the planned and strategic use of communication processes and media products to support effective policy making, public participation and project implementation geared towards environmental sustainability. The CPM involves a set of communication activities designed to meet specific objectives among specified communication partners or stakeholders. Once the communication planning matrix is detailed, the strategies are identified by incorporating three further details: such as time frame, responsibility or who would be involved in implementing the interventions, and the estimated tangible and intangible costs. This information enable prioritization and selection of suitable interventions to achieve the objectives given a realistic time frame, costs and time constraints. Table 2 illustrates the structure of a communication planning matrix.

Table 2. Communication Planning Matrix-Communication Strategy (template)

Communication Strategy						
WHO	WHY	WHAT	HOW	WHEN	WHOM	COST
Communication Partners	Communication objectives	Content of the communication	Communication channel/method	Timeframe for communication activities	Responsible for conducting the communication activities	Estimated cost for communication activities

3.Implementation of Communication Interventions

Conflict management refers to all kinds of interventions in a conflict over the use of renewable resources and the degeneration of the environment. The main aim is to solve the problems as perceived by the parties involved. It serves to transform the hostile relationship between the parties in conflict to build a cooperative relationship. Negotiation, mediation and arbitration are the typical the interventions used in achieving positive conflict resolution. All stakeholders involved needs to be represented in planning of interventions. Negotiation involves a variety of methods of the communication process that occurs when two or more parties involved in a conflict of interest attempt to reach a mutually agreeable resolution. Issues are not limited to environmental problems, but encompass economic, social, cultural and political questions. This could be in the form of face to face meetings, group discussions and meetings. In some instances a mediator is needed to facilitate negotiators to reach an agreement. Mediators could be a village head, religious leaders, government officials, non-governmental agencies or any neutral party. Meditative approaches could also be required between disciplines, economic sectors and social groups within a single conflict party with one group taking the lead as a mediator. Arbitration is used in resolving disputes with cross national boundaries involving obligations under various conventions treaties or laws at a national or international arena. Among the communication channels which promote the intervention approaches above include workshops, meetings, group discussions, public forums and training.

Table 2. Priority Communication Interventions undertaken in study site (template)

Intervention Chosen (e.g. Provincial Meeting, Multisector forum)	Conflict addressed	Stakeholders Involved	Details (dates/ no of participants/ where)	Achievement (were the objectives/ targets met)	Constraints	Recommendations

4. Attitude Change Measurement

A Re-Survey of Attitude is a procedure used to determine the changes in the attitude and perception of the stakeholder groups. This is conducted after the implementation of the communication interventions. This fourth step intends to measure changes in attitude toward conflict resolution and consensus as influenced by the communication interventions. This step is not necessarily the final because communication is a continuing and evolving process, hence; there is a feedback loop in FishCom diagram. This step used a comparative study of the outcomes of the survey of attitude before the implementation of the communication intervention (*ex-ante*) and re-survey of attitude after the intervention (*ex-post*). This step used similar set of *Attitude Survey Statements* to elicit *ex-post* responses from the same set of stakeholder-respondents in the *ex-ante* attitude survey. The sampling techniques and methods used for analyzing data are crucial factors in measuring changes in attitude. In an ideal condition, the respondents of both surveys should be the same persons (sampling without replacement). However, the re-survey may involve respondents who appear to have similar characteristics as the respondent in the first survey (sampling with replacement). The replacement may be acceptable due to the limitations of finding exactly the same person during the village visit for the re-survey, and multi-stakeholder meetings. There should also be a sufficient time interval between the Attitude Survey and Re-Survey of Attitude depending on the nature of the conflicts and the inventions undertaken.

Table 3. Statistical analysis of attitude survey among fishers and conflict managers (template)

Attitude statements	Fishers' attitude before intervention	Fishers' attitude after intervention	t-ratio	Conflict managers' attitude before intervention	Conflict managers' attitude after intervention	t-ratio
	Mean (Standard deviation)	Mean (Standard deviation)		Mean (Standard deviation)	Mean (Standard deviation)	
i. Understanding of Conflicts						
Too many people trying to catch a limited quantity of fish is a major cause of fisheries conflicts						
Non-cooperation between fishers and leaders is a major cause of fisheries conflicts						
Fisheries conflicts lead to serious hardship for fishing families						
Influx of new people (non-traditional fishers) into fishing leads to severe conflicts in fisheries						
If government agencies did their job properly, there would be very few conflicts over fisheries						
Use of destructive fishing gears/practices are the reasons for fisheries conflicts						
ii. Manageability of conflicts						
Powerful groups will always be able to win their conflicts with less powerful groups of fishers						
Local cooperation of conflict resolution will be effective if the government agencies participates						
Conflicts are getting worse every year						
All fisheries conflicts can be resolved						
Community can manage fisheries conflicts themselves						
iii. Prerequisites for resolution						
If all parties are willing to compromise, solutions to conflict can be found						
All parties need to understand existing policy and regulations before a process of conflict resolution can begin						
Conflicts can be resolved if the fishing communities organized						
Fisheries conflicts can be resolved if the fisheries rules are strictly enforced						
Effective solutions of conflicts can be found if the communities and government work together						
Better understanding of one another's' needs and points of view will not make it easier to resolve conflicts						
iv. Process of resolution						
Conflicts between fishers can not be resolved by village leaders bringing the parties together to discuss the issues						
By strengthening the capacity of local institutions conflicts can be resolved						
All conflicts can be resolved through dialogue and negotiation						
Strict enforcement of rules and regulations can help to manage conflicts						
Community based fisheries management/co-management approach can help to resolve conflicts						
v. Responsibility for resolution						
Government is the only agency that can manage conflicts						
The NGOs can play an important role to influence the communities to manage conflicts						
The village leaders can play an important role for conflict resolution						
Fishers and their leaders should take the initiative to resolve disputes and conflicts						
I cannot do anything to help to resolve conflicts over fisheries (or: It is not my job to help to resolve conflicts over fisheries)						

References

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