Collaborating for Sustainability:

A Resource Kit for Facilitators of Participatory Natural Resource Management in the Pacific

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RELEASED SEPTEMBER 2004

Participants learn facilitation skills in a training workshop, Niue 2003

South Pacific Regional Environment Programme

Foreword

One of the key focus areas of SPREP's work is in natural resource management. This entails a broad coverage of work in coastal ecosystems and species protection; preventing pollution from a variety of sources - solid waste, sewage and other sources of pollution; local adaptation to the effects of climate change on the environment and mainstreaming environmental management with development.

SPREP assists its members - principally national government agencies - themselves often working in partnership with other non-government and local community-based organizations, to address priority environmental issues. Addressing environmental problems more often than not involves multi-stakeholders at local, national or international levels making resource management challenging work indeed. It has been proven in many projects across the region that outcomes are more likely to be sustainable and people's well-being and livelihoods improved if stakeholders participate in resource management initiatives during the very early stages of project planning and design and all key stakeholders play a role in decision-making.

Addressing environmental threats and causes of environmental degradation requires, among other actions, changing people's behaviour. In many respects environmental management is about managing people. Therefore it is crucial to SPREP's work that we place special attention on understanding the human dimensions of resource use and management. This includes considering social, cultural and economic factors and conditions surrounding stakeholders and the way they use and manage resources, factors that influence stakeholders in decision-making and ensuring the active participation of stakeholders during all aspects of project implementation.

This kit is one of a number of resources being produced with the support of IWP and other programmes within SPREP and other regional and international agencies that give more attention to these human factors in natural resource management. Some of the material and approaches are new and innovative. Others have been in practice and proven their value for improved resource management for some time.

The kit has been born out of the hard work of a number of collaborating partners and SPREP staff. I congratulate the authors and all those who contributed to the development of this kit, in particular the IWP and staff of regional projects who have provided snap shots of their experiences in facilitating community-based resource management projects. I hope that our Pacific island partners will find the kit valuable in their 'grass roots' work. With its practical non-technical approach I have no doubt that this kit will be put to good use in the region for the benefit of the people'

Asterio Takesy

Director, South Pacific Regional Environment Programme

Acknowledgements

This resource kit was developed from material prepared for and delivered during a series of regional training workshops implemented by the International Waters Project (IWP), SPREP on behalf of 14 Pacific Island Countries during 2003. A number of people contributed to the development of the overall framework and structure originally used during the IWP training workshops. SPREP would like to acknowledge the work of consultants Katherine Means and Tim O'Meara in preparing workshop material in association with SPREP IWP staff: Natasha Stacey, Paula Holland; Andrew Wright and Samson Samasoni.

The kit revision was undertaken by a technical resource person, Sango Mahanty, Australia, in conjunction with Natasha Stacey, SPREP, with contributions and material from the following SPREP staff: Paula Holland, Andrew Wright, Frank Wickham, Taito Nakalevu and Mary Power.

Staff of SPREP coordinated regional programmes such as the IWP, have contributed material on their experiences working as facilitators: Sione Fakaosi, Tonga IWP; Narua Lovai, PNG IWP; Su'a Faraimo Ti'iti'i, Samoa IWP; and Leah Nimoho,Vanuatu, IWP. Thanks for sharing your experiences with us!

The IWP staff at SPREP would also like to thank our colleagues for pooling resources to enable the IWP kit to be developed into a wider SPREP regional resource.

An earlier version of this kit was circulated for peer review and comments. SPREP would like to gratefully acknowledge the valuable comments provided by the following people: Hugh Govan, Foundation of the Peoples of the South Pacific International (FSPI); Mecki Kronen, Community Fisheries Scientist, Secretariat of the Pacific Community (SPC); and Suzy Randall and Miriam Philip, SPREP.

The resource kit draws on various published and unpublished material and resources and these have been acknowledged individually throughout the kit. The case studies provided draw on a number of SPREP projects and programmes as well as others that have been implemented in the Pacific over the last decade.

Paul Stapleton, SPREP, provided editorial support and the artwork used was by Catherine Appleton (copyright is shared between Catherine and SPREP).

SPREP would like to acknowledge the funding assistance from the following SPREP coordinated projects in supporting the preparation and production of this resource kit:

- Global Environment Facility/United Nations Development Programme/ SPREP International Waters Project in association with participating countries (Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu)
- International Coral Reef Action Network (ICRAN)
- Canadian South Pacific Ocean Development Programme (CSPOD)

- US Fisheries and Wildlife Service
- United Nations Environment Programme (UNEP)
- Capacity Building for the Development of Adaptation Measures in Pacific Island Countries (CBDAMPIC) funded by the Canadian International Development Agency (CIDA)

Working with stakeholders often requires facilitators to adapt activities to suit the situations and purposes for which they are being used, and this kit has also adapted material from a range of sources. We have tried as far as possible to cite the original sources for the material in this kit, but if a reader feels that any material has not been attributed correctly we would appreciate hearing from them, so that we can make the necessary amendments.

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Abbreviations

BCN	Biodiversity Conservation Network
GEF	Global Environment Facility
IWP	International Waters Project
NGO	Non-government Organisation
NRM	natural resource management
SPBCP	South Pacific Biodiversity Conservation Programme
SPREP	South Pacific Regional Environment Programme
UNDP	United Nations Development Programme

Glossary of Key Terms

Note: the definitions in this glossary have been adapted or simplified for the purpose of this kit, and care should be taken in applying these definitions more widely.

Adaptive management: managing activities and projects flexibly to modify activities based on feedback from periodic monitoring (Borrini-Feyerabend et al., 2001).

Baseline study: a baseline study gathers information to describe the social, economic or ecological situation to be addressed by a programme or project. This serves as the reference point for measuring the performance of the programme or project over time (Russell and Harshbarger, 2003).

Blueprint approach: this refers to a 'top down' approach to project planning, originally drawn from engineering and construction, where design and implementation of a project is controlled by experts with little or no community involvement or flexibility to change activities once the project is underway (Lal and Keen, 2002).

Community: a group of people residing in a sub-village, a village or several villages in an urban or rural setting that use resources in a common area. A community is generally heterogenous, including many sub-groups, often with diverse or opposing needs, capacities, and interests (Pollnac and Crawford, 2000; Whyte, 2002).

Content neutral: being content neutral means not taking a position on the issue being discussed, or having a stake or position on the outcome. A content neutral facilitator is dispassionate, impartial, or unprejudiced about the topic of discussion (Braakman and Edwards, 2002).

Environmental impact assessment (EIA): a process to support planning and decision-making that involves identifying the potential impacts, benefits and costs of proposed projects, plans and policies.

Evaluation: a time-bound exercise that attempts to assess systematically and objectively the relevance, performance, success (or failure) and lessons learnt from ongoing and completed programmes and projects. This is often conducted at mid-term and/or at the end of a Programme or Project.

Facilitation: working with or helping a group successfully achieve its aims and tasks while functioning as a group (Braakman and Edwards, 2002).

Gender: refers to the socially constructed roles ascribed to males and females. These roles are learned, change over time, and vary widely within and across cultures. (AusAID n.d.)

Gender analysis: a systematic way of examining the differences in the ways men and women use natural resources, rely on them, and have access to alternatives. It also assists in identifying the constraints (financial, legal, cultural etc) that affect the ability of men and women to respond to and participate in a conservation initiative, as well as the impacts a programme or project may have on men and women. A gender analysis requires separating data by sex, and understanding how labour and access to resources is divided and valued. Gender analysis can refer to any topic and be incorporated in all types of tools and processes including interviews, and

various PRA methods such as diagramming, visualisation and ranking exercises (AusAID n.d.).

Indicators: the elements, variables or topics that are the focus of an assessment. Some examples of social indicators include: household income, membership in stakeholder organisations, and diet. Such indicators can be monitored regularly to assess the impacts of a program on a community (Bunce and Pomeroy, 2003).

Logical Framework (Logframe): a project planning technique that allows individuals to systematically consider and map out the details of a project plan (Sutherland, 2000).

Monitoring: continuous studies to collect data based on identified indicators or parameters, usually at regular intervals throughout a project to measure changes and show that the project is (or is not) meeting its objectives (Bunce and Pomeroy, 2003).

Natural Resource Management: a broad term referring to initiatives (e.g. policies, programs, projects) to sustainably manage our use of resources such as land, water, sea, forests, and biodiversity.

Objectives Tree: An activity to help stakeholders work from a problem analysis to the development of solutions and possible project activities (Worah et al., 1999).

Participation: a process through which stakeholders influence and share control over development initiatives and the decisions and resources that affect them. It is a process that can improve the quality, effectiveness and sustainability of projects and strengthen ownership and commitment of government and stakeholders (World Bank, 1996).

Participatory Problem Analysis (PPA): An activity to help stakeholders analyse the 'root causes' of resource management problems as a basis for project planning (Worah et al., 1999).

Participatory Learning and Action (PLA) and **Participatory Rural Appraisal (PRA)** are a suite of techniques for gathering and analysing information together with stakeholders, often using visual representation.

Primary Data: Primary data are *new* information gathered during research, such as field notes, observations, interview and questionnaire data (Bunce and Pomeroy, 2003).

Problem tree: A variation of a Participatory Problem Analysis that considers the impacts of a resource management issue in addition to analysing the root causes of the issue.

Project map: a visual representation of the goals, objectives, activities and outputs of a project based on the results of a *solutions tree* (see below) and a *participatory problem analysis* (see above).

Qualitative methods: methods that gather visual or narrative (words) information, such as interviews, observations and various PRA methods (Neuman, 2000).

Secondary data: Data that have been collected, analysed and published in various forms, such as official documents, national statistics and reports on previous research and surveys (Bunce and Pomeroy, 2003).

Socio-economic Assessment [SA]: the systematic investigation of the social, cultural, economic and political conditions of people, groups,

communities and organisations (Bunce et al., 2000). Focus is generally on those processes and factors related specifically to program activities, with an aim of: a) identifying key stakeholders and establishing an appropriate framework for their participation; b) ensuring that project objectives and incentives for change are appropriate and acceptable to beneficiaries, c) assess socio-economic impacts and risks, and d) minimise or mitigate adverse impacts (Social Development Department, 2002).

Social marketing: a communication approach that makes use of commercial marketing principles to deliver social messages and concepts to campaign for behavioural change. Social marketing recognises that behaviour is shaped by habits, interests, feelings, and beliefs (among other factors) and that to effect enduring change, campaigns must target those elements which most influence peoples behaviour (IWP, 2004, Social Marketing Resource Kit).

Solutions tree: a visual representation of potential solutions to the identified causes of resource management problems. A solutions tree is developed from the outputs of a participatory problem analysis,

Stakeholder analysis: identification of all groups and individuals who may have an interest or be directly or indirectly affected by resource management changes, and analysis of their practices, responsibilities, interests and relationships (Grimble and Wellard, 1996).

Stakeholders: all people, groups, communities and organisations who use and depend on a resource, whose activities affect the resource or who have an interest or ‘stake’ in these activities. Stakeholders may include local users, government agencies, civil society, universities and researchers (Grimble and Wellard, 1996).

Triangulation: a process of improving the accuracy and validity of information by cross-checking with different sources (Neuman, 2000).

Module 1: Introduction: this resource kit and how to use it

Module aims

This module will help you understand:

- Why this kit was produced, how it is organised and how you as a facilitator can make use of it.
- The broad process involved in carrying out a participatory resource management program.
- The reasons for using a participatory approach to natural resource management in the Pacific.

Topics

This module includes the following topics:

1.1 Participatory natural resource management in the Pacific and the role of this resource kit

1.2 The process of participatory natural resource management

1.3 Issues in project design

Topic 1.1: Participatory natural resource management in the Pacific Islands and the role of this resource kit

Addressing unsustainable resource use and environmental degradation is a central challenge for people of the Pacific. Many programs, past and present, have grappled with such issues as nature conservation, climate change, sustainable use of marine and land based resources, and waste management. Some crucial lessons have been emerged from this recent history. Firstly, natural resource management (NRM) programs in the Pacific Islands (and elsewhere) generally have a much greater chance of success if they engage and work closely with people and groups that have a strong stake in the resources (Whyte, 2002, Baines et al., 2002, see Case 1). Secondly, as well as engaging stakeholders, we need to also base our interventions on a sound understanding of the causes of resource management problems, and their relationship to key social, cultural and economic conditions (Hunnam, 2002, Lal and Keen, 2002). Without these two foundations, we are less likely to achieve lasting and equitable change towards sustainable development.

Case 1: Why participatory resource management?

The South Pacific Biodiversity Conservation Program in the 1990s is one example of a program that tried to apply a participatory approach to natural resource management, based on the idea that efforts to protect resources from degradation in the Pacific and many other parts of the world are often ineffective and inequitable without the involvement and willingness of local people. The need to engage local stakeholders in resource management were seen as particularly important in the Pacific where:

- Local people often depend on natural resources for their livelihoods.
- Local communities own land under customary systems of tenure, and this is recognised by governments.
- There are many examples of functioning customary rules and bodies that manage people's access to and use of natural resources.

(Source: Read, 2002)

This resource kit

This resource kit contains a collection of methods and resources to help you work with stakeholders to learn about NRM problems and plan for change.

Who is this kit for?

This resource kit is intended to support people working on participatory natural resource management programs, whether you are:

- A project manager who is overseeing project planning, doing actual facilitation work with stakeholders (e.g. running meetings and workshops), or coordinating facilitation work by other project staff and supporting them in briefing or training sessions.
- A person who is actively involved in facilitating discussions with stakeholders in a project (a 'facilitator').

- Involved specifically in training project staff for a participatory NRM project.

In this resource kit, we refer to 'project managers and facilitators' to reflect these different kinds of users. Where the term 'facilitator' is used, we are referring specifically to those people who are facilitating discussions between stakeholders. It is important to note here that projects generally involve many people in a range of roles, which we refer to here as a 'project team'. For example, a project team would include project managers, facilitators and other project staff.

These resources can be used whether you work with:

- national government agencies
- non-government organisations,
- local organisations and/or
- community groups.

Background to this resource kit

As coordinators and resource people for participatory programs in the Pacific, we have found a wide variety of manuals, resource kits and guides to support participatory planning processes and to help project participants understand the socio-economic dimensions of participatory NRM. It has been difficult however to find one 'manual' that covers the range of areas that project managers and facilitators working in participatory NRM in the Pacific region need to know about: the key social and cultural issues to be considered in planning and designing participatory natural resource management projects, methods for socio-economic assessment and tools and skills in the management and administration of externally funded projects. For example some manuals focus on participatory tools such as Participatory Rural Appraisal (PRA) for planning purposes, others on how to do a socio-economic baseline assessment and others still on how to conduct a stakeholder analysis.

To address this lack of material, staff of the International Waters Project (IWP) at SPREP and two trainers (Katherine Means and Timothy O'Meara) prepared training materials in 2003 on socio-economic assessment and participatory planning for community based projects. The material developed was delivered in a series of four sub-regional two-week workshops held between May to August in 2003. The sub regional workshops, called "*Train-the-Trainer Workshop in Stakeholder Participation, Facilitation and Social Assessment*", aimed to train participants as either trainers or facilitators in participatory planning processes and socio-economic assessment for pilot projects in participatory resource management being supported by the International Waters Project. The workshops also aimed to increase local capacity within the IWP to design and plan community-based activities for the project. Supported by all 14 countries participating in the IWP, the workshops trained approximately 60 participants including IWP national staff and others from NGOs and government agencies. The production of a customised resource kit to support IWP country staff and their local facilitators was one of the key outputs of these workshops.

After the workshops were completed, a number of SPREP staff agreed to pool resources and collaborate in the revision of the IWP kit to produce a kit that could be used by other people working on participatory environment and resource management in the region.
The kit has now been revised with input from a number of people from both within SPREP and national staff of various SPREP supported projects. We have now included case study material from IWP participating countries that have completed and documented various participatory project planning processes and activities (e.g. Niue and Tonga). The kit also draws on experiences from other initiatives in the Pacific: Capacity Building for the Development of Adaptation Measures in Pacific Island Countries (CBDAMPIC) Project; International Coral Reef Action Network (ICRAN) Projects; South Pacific Biodiversity Conservation Programme (SPBCP); and Biodiversity Conservation Network (BCN). We hope that we can include more material from other projects in a future revision of this kit.

Using this kit

We believe that it is important for NRM facilitators to approach their work in an informed and reflective way: to understand the purpose and conceptual background of the methods provided, and to know about the qualities and skills that can help them to be more effective as facilitators. Reflecting this perspective, the kit is organised into six modules, which broadly relate to a different phase in the project cycle for a participatory NRM program (discussed in the next section.) The modules are:

- Module 1: Introduction
- Module 2: Engaging stakeholders
- Module 3: Learning about natural resource management problems
- Module 4: Learning about the socio-economic context
- Module 5: Planning for Change
- Module 6: Planning for Action

Each of these modules contain a series of topics, including conceptual background, case studies and issues, presented in text boxes, and activities to use with stakeholders or in a training setting.

- **Background** on the key phases of a participatory natural resource management program.
- **Conceptual information** in each module to give you an understanding of the purpose and uses of the methods provided.
- **Case** and **issue** boxes to help illustrate the concepts and issues involved in participatory NRM.
- Practical **activities** that can be used by facilitators in a workshop situation, and **checklists** in each module to help you plan your work and check that you have covered the key issues and steps.
- **Examples** of how the materials can be adapted for a training workshop (see Annex 1).

Further development of this kit and its link to other resources

Over the next 12 months, there will be opportunities to further test and trial some of the material contained in this Kit. As other SPREP training initiatives in participatory planning for NRM are completed and actual participatory planning activities and stakeholder consultations are undertaken across the region, we hope to further refine and revise this Kit. Subject to resources, there may be an opportunity to publish this Kit and possibly develop the material into an interactive learning CD Rom.
This kit is supplemented by other resources being developed through the IWP for the Pacific region:

- Social Marketing, an approach to fostering behaviour change that supports sustainability, is detailed in a separate kit developed by SPREP and the New Zealand Ministry for the Environment;
- Collaboration between United Nations Division of Ocean Affairs and the Law of the Sea, the University of the South Pacific, the Australian National University and the IWP at SPREP has led to a 'Train:Sea:Coast' course on 'economics for community-based environment and development projects in the Pacific.' The course was delivered for the first time in February 2004. The material is to be converted to a text book in 2004, which will complement the contents of this resource kit.

Topic 1.2 The process of participatory natural resource management

Projects or programs generally involve a process of assessing the situation around an issue or problem, and planning a targeted set of activities to change or improve things in some way (Lal and Keen, 2002). As mentioned above, effective resource management initiatives are founded upon a good understanding of the social, economic and environmental conditions around the issue or problem they aim to address. Projects like this can be initiated by a range of organisations, including donor agencies, government, NGOs, or community groups. You are probably using this resource kit because you are working with one such organisation, and are in the process of facilitating a resource management project or program.

In designing programs, we broadly need to: assess the resource management issues and the situation surrounding them, assess and select options for how to address the issues, plan and design the project and its activities, implement (do) the activities, and assess how effective the project is through monitoring and evaluation. This process is often called a 'project cycle'.

An example of a standardised project cycle is given below in Figure 1. Most project cycles include steps to:

- assess the initial situation to some extent.
- identify solutions.
- implement solutions.
- learn lessons.

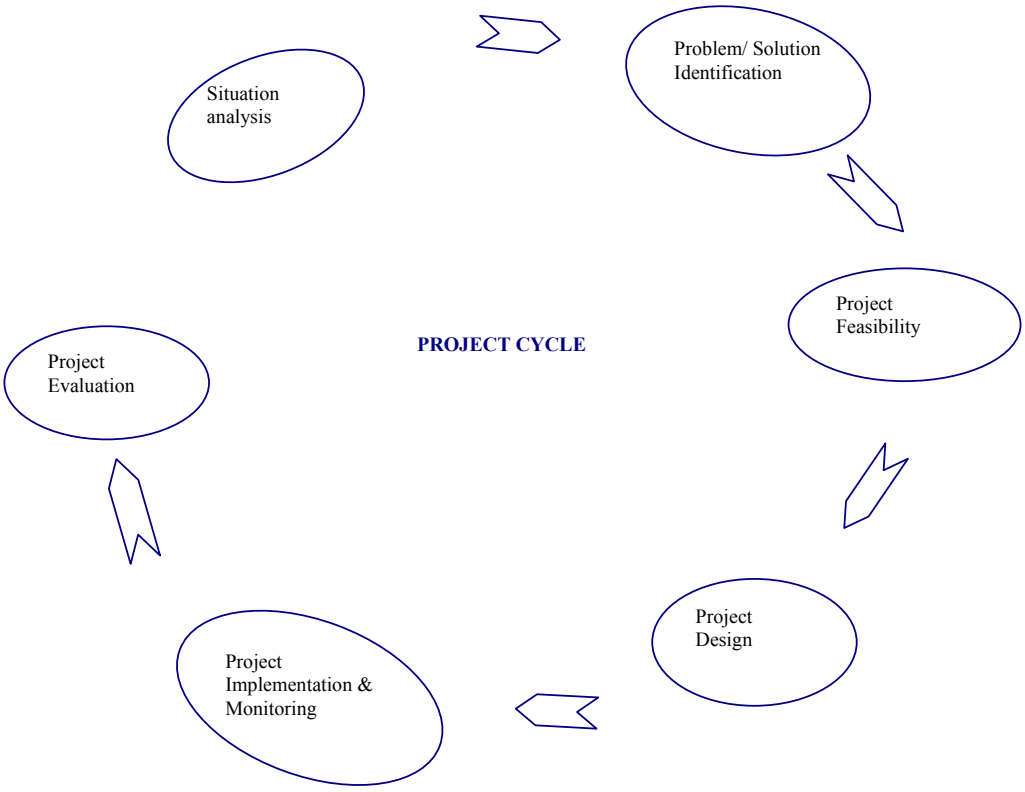
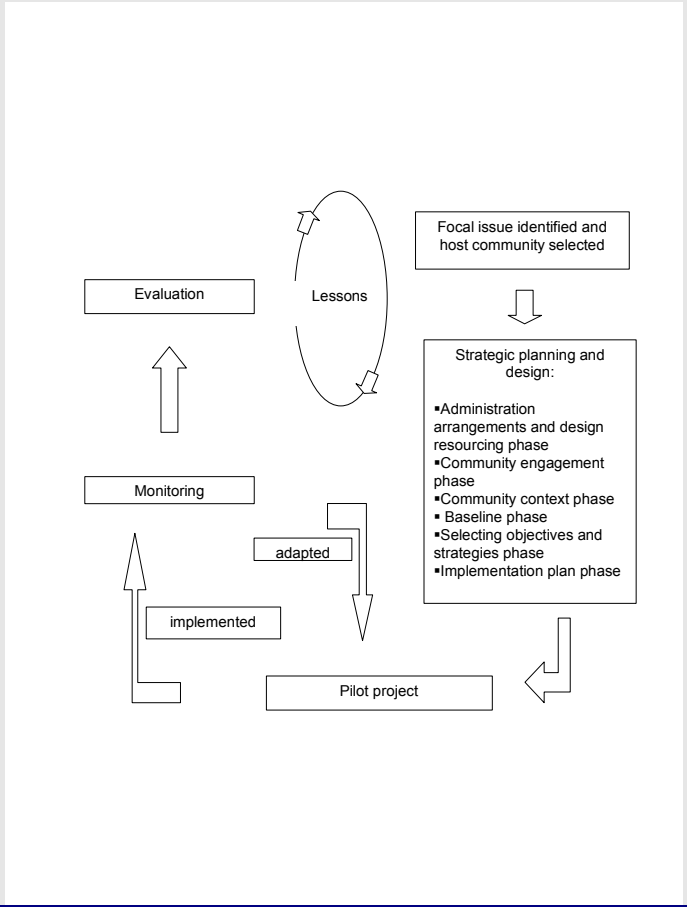


Figure 1: Project Cycle (Source: Lal and Keen, 2002)

In practice, the details of project cycles may vary from project to project and organisations, for example in the number of steps used to achieve the outcomes and the terms used for them. See for example, the case study on the International Waters Project below (see Case 2).

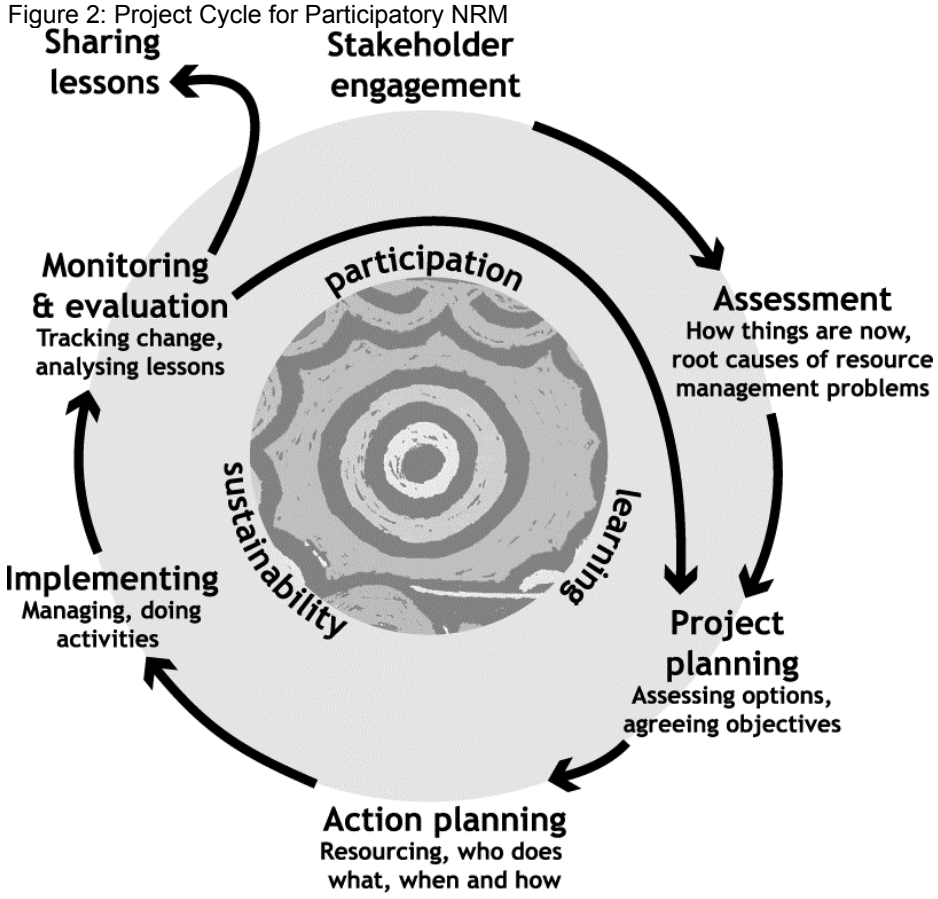
Case 2: Mapping a process for the International Waters Project

The International Waters Project supported pilot projects to help Pacific Island communities and governments better manage their marine and freshwater resources. Stakeholder engagement started with the identification of a focal issue and associated communities in each country. This was decided by coordinating committees involving key stakeholders that had been established in each country. The local facilitators then got more detailed information on the resource issues and the social and economic context for these. The next stage was participatory planning with key stakeholders, followed by implementation of a 'pilot' project. Monitoring and evaluation were very important in this project cycle, because the pilot projects were supposed to be 'experimental' so that the lessons learned could be used to further develop the approach at that site, elsewhere in the country, and also in the Pacific more generally.



This resource kit is particularly for projects where stakeholders in the project are closely involved in the planning process, and where the project team can take a flexible approach to project activities. This enables activities to be adapted based on lessons learned while implementing the project. The reasons for supporting this kind of approach are discussed in Module 2. The standardised project cycle in Figure 1 can be adapted to pick up some of the important aspects of this kind of participatory and adaptive approach. This has been done in Figure 2 below. This figure represents the project cycle followed in this resource kit, because it shows the focal areas of concern in a participatory NRM program, and highlights the key stages to support these.

Figure 2: Project Cycle for Participatory NRM



The inner circle represents three core processes that guide collaborative NRM interventions: participation, sustainability and learning. The outer circle shows the main stages in developing and implementing a collaborative project:

Stakeholder engagement: this is the starting point of the cycle. Project staff identifies stakeholders and start initial discussions and negotiations on the issues to be addressed by a project and their potential interests. Facilitators may work through existing bodies to liaise with stakeholders or find that they need to set up a new mechanism for ongoing negotiation and consultation with stakeholders. The material in **Module** 2 covers the important concepts and principles at this stage of the project.

Assessment: project managers and facilitators collaborate with stakeholders to look at the current resource situation, and gather background on the social, economic and ecological conditions for the purpose of planning project activities. This resource kit presents methods for analysing the 'root causes' of current issues together with stakeholders. The material in **Module 3** helps you to find out about stakeholders and the causes of resource management issues. **Module 4** helps you to get more detailed information about the socio-economic situation underlying the resource management issues. Although Module 3 and 4 are presented separately here, both are

essential for good project planning; it is important to work through both if you want to gain a solid understanding of the social, economic and ecological background to the issues to be addressed in the project.
Project planning: project managers and facilitators work with stakeholders to establish project goals and objectives, and select appropriate solutions from a range of options. **Module 5** helps with this stage.
Action planning: project managers and facilitators work with stakeholders to plan how specific activities will be implemented, by whom and with what resources. **Module 6** helps with this stage.
The final two stages in the project cycle are not covered in this resource kit:
Implementation: the action plans are implemented by the relevant stakeholders. Project managers and facilitators have a coordinating and reporting role, and may implement some of the activities.
Monitoring and evaluation: project managers and facilitators collaborate with other stakeholders (eg. Technical resource people, community members, relevant organisations) to monitor the social, economic and ecological impacts of various actions on a regular basis through monitoring. The information should be fed back to stakeholders to decide whether any changes are needed to make project activities more effective, equitable or sustainable. Evaluation at the final stages of the project is an important step to identify lessons for a wide range of stakeholders.

The cyclic nature of the project cycle is important in a learning approach to resource management. The collection of information through monitoring can help to improve the current initiative, and sharing the lessons with a wider community of practitioners helps to improve the effectiveness of programs more widely.

A participatory and learning-focused approach to resource management requires project managers and facilitators to be willing to experiment, make mistakes, and share their learning. The success of a participatory approach also depends on our ability to develop our skills as facilitators (see Topics 2.3 and 2.4).

Topic 1.3 Issues in project design

This resource kit focuses mainly on the methods and skills that facilitators need to plan projects in a participatory way. At the same time, it is important for facilitators to be aware of some crucial planning issues and lessons that have emerged from a long history of development and resource management programs. We look briefly here at what some of these key issues are.

Administrative requirements

Project activities will often require financial support from sources such as donor agencies, NGOs and government, and this usually comes with administrative requirements (see Issue 1 below). Some key administrative issues and questions you will need to consider include financial management, personnel, equipment needs, reporting requirements and timelines.

Issue 1: I am a facilitator, not an administrator!

Without a doubt, administration must be one of the least liked aspects of facilitating participatory resource management programs. Most of us are there because we care about people and we care about the environment, rather than a particular fondness for report writing and maintaining financial spreadsheets!

Here is another way of looking at it. Unless we look after the finances, people, and things associated with a project, it cannot succeed in meeting its aims. Unclear guidelines and lines of authority on the use of finances, use and misuse of equipment, workloads, staff burnout and tensions within a project team can all undermine projects (Mayer and Brown, no date).

By learning to integrate these requirements into our work, we can also help stakeholders build their capacity in project management.

Financial:

- What financial resources are needed for project activities? (Consider this broadly here, and specifically for the work plan in Module 6)
- What requirements does the funding body impose? E.g. Do they require quarterly reports on expenditure, do they have any special formats or templates for recording costs and expenditure?
- Who will be accountable for expenditures associated with the project?
- What kinds of things will the project pay for and not pay for? For example, some stakeholders may have an expectation that they will receive sitting fees for attending a meeting. Transparent guidelines on such issues, and putting some time into explaining the background to the guidelines, can help to ward off tensions down the track.

Personnel:

Personnel refers to people working with the project, whether they are paid or unpaid. Some important questions include:

- How many paid personnel will work with the project?

- What recruitment procedures will we follow to make sure we find well qualified and appropriate people (see Issue 2 below)?
- What kinds of salaries can we offer?
- If there are people in unpaid roles, are there any issues and expectations regarding payment or alternative forms of compensation for the time spent on project activities?
    - Clarify these up front to avoid disappointment and conflict.
- Are the expected workloads reasonable?
- Are there opportunities to share workloads through partnering with other organisations?
- Do staff have any training and development needs to carry out their roles?
- Are staff committed to staying with the project for the long term? Rapid turnover increases the workload for other staff, and can strain relationships with stakeholders.

Issue 2: Recruiting suitable staff

A project in the Pacific found that clearly documented Terms Of Reference helped to clarify the roles and responsibilities of project staff, and to recruit appropriate people. For example, some of the responsibilities of local facilitators included:

- with the support of the project manager, facilitate generation of social, economic and physical information relating to environmental problems at selected sites (such as base line information generation, monitoring and evaluation activities and training activities) with stakeholders;
- summarise findings from community consultations and provide these findings to the national coordinator;
- report regularly to national coordinator on issues associated with community consultation;
- assist the national coordinator, as necessary, in the preparation of reports on information generation; and
- participate in local meetings and workshops that may, from time to time, be convened to discuss community consultation-related issues.

Source: IWP Kiribati Draft Baseline Assessment Terms of Reference, 2003

Reporting schedules and responsibilities

- What reporting requirements does the funding body have?
- Who will prepare reports and liaise with funders?

Equipment needs

Rightly or wrongly, funds often come with restrictions on how they may be used. A common issue is restrictions on the use of funds for purchasing

vehicles or 'capital' expenses (eg. Constructing a building or having to use a certain supplier). Once you work out the equipment needs associated with a project, these may need to be negotiated with the funding body, or additional resources sought from other partners to meet those needs.

Timelines

Timelines may seem like a trivial aspect of a project, but they have a lot of significance for participatory programs. Participation takes time. Rushing participatory processes is often at the cost of consulting a wide range of stakeholder groups and inclusive decision-making processes. A key question to consider in relation to timelines is:

- Are we setting realistic timelines for the activities and processes planned? Bear in mind that in participatory projects we may need to 'educate' funding bodies that are used to a *blueprint approach*, where project design being set out at the beginning of a project, rather than being established during the project through consultation with stakeholders. The latter requires greater flexibility with timing.

Communication strategy

In developing a communication strategy for your project, it is important to do some initial background research on what communication activities are currently being carried out by existing organizations such as government departments and NGOs that you could tap into, and what media options are available for disseminating information and raising awareness about your project to key stakeholders and the general public. This is discussed further in Topics 2.7 and 5.4.

Some questions to think about as the project design is firming up include:

- What sorts of communication strategies (eg public relations, social marketing, formal education) will help to keep stakeholders informed and involved? (See Issue 3).

Issue 3: Examples of Communication Tools

Examples of some communications tools include:

- Booklets/Pamphlets/Brochures
- Posters
- Calendars
- Community meetings
- General multi-media presentations/workshops
- Kits/educational materials for teachers
- Newspapers and magazines
- Media Releases
- Television
- Video programs
- Radio programs
- Public television

- Internet and World Wide Web
- Special events/competitions/launches/celebrations
- T-shirts; key rings
- Reports
- Theatre performances

- Which groups do we need to target?
- What messages do we want to communicate? When (timing), how often (frequency) and for how long (one off or repetitive long term)?
- What communication channels and tools will we use to deliver information and messages?
- Who are our partners, communication networks (eg NGOs) and media sources?
- How will we monitor our communications activities?
- Importantly, have we allowed for communications activities in the budget?
- Who will be responsible for communications related activities?
- What communications professionals and services are available to support communications activities locally (eg printers, graphic designers, web page developers, translators, photographers, video production etc)

An example of a communication strategy can be seen in Case 3 below.

Case 3: IWP Communication Strategy

The Pacific International Waters Project (IWP) has an overarching communications strategy that addresses all major communication elements of the Project. The strategy details the objectives, guiding principles, audiences, communication channels and tools for IWP communication activities. A diverse range of communication services and tools are necessary because of the IWP's broad interaction across five thematic areas, different technical outputs and target audiences. This includes information dissemination at global and regional levels and awareness raising and promotion of sustainable behaviour change at a national and local level.

The strategy is made up of three distinct plans: public relations, social marketing, and community education. By dividing the activities into three different sets of communication disciplines, the tools and communication channels required to achieve the strategy's goal are more directed and focused. Public relations activities cover all levels and use a range of tools to raise awareness and disseminate information about the IWP. Social marketing makes use of methods from the commercial sector to promote change at an individual, community and societal level. It uses commercial principles and processes to try and change the behaviour of target audiences by promoting benefits and reducing barriers to change. Community education sets out how to develop a formalised learner-focused education programme that is based on learning outcomes. Together these

provide an integrated framework for the implementation of communication activities for the regional project and national and local level pilot activities. (IWP Communication Strategy, 2002).

Governance and institutional strengthening

Apart from lack of information, resource management problems often stem from issues with the institutions or rules that guide decision making and behaviour, including:

- unclear property rights regarding access to and ownership of a resource;
- missing or inappropriate rules to guide resource users;
- mismatch between rules at different levels (e.g. Government law does not support local management rules); and
- lack of information flow and coordination between stakeholders (Lal and Keen, 2002).

These issues are discussed further in Topic 2.2 and also emerge in participatory problem analysis (see examples included in Topic 3.2). To address resource management issues, solutions must logically address such weaknesses in institutional arrangements.

Institutional issues can be addressed by refining institutions at the local, national or international level. Experience shows that locally introduced changes often require support at a national or international level to be implemented and supported. For instance, a village may establish a marine protected area but fish protected in that area may swim outside it only to be caught in the fishery belonging to others, or external users may disregard local rules. To ensure that the fish are properly conserved, the marine protected area may need to operate as part of a coordinated district plan for fisheries management. In other words, institutional support would be required at the provincial or national level.

Projects often address these issues by making changes to such institutional arrangements. For example, it may be appropriate to change ownership and access systems for resources by introducing new rules or refining old ones. Such changes alter the incentives that people have to use them, and therefore their behaviour.

For community based environment projects, institutional changes may be relevant at a number of different levels. For example:

- They may occur at the *local* level with the introduction of new local rules that encourage different choices;
- They may occur at the *national* level with the introduction of new policies, laws or educational programs to encourage different choices;
- They may occur at the *international* level to change the choices made by national governments and thereby affect the policies that they introduce or enforce domestically.

Institutional change for the better implies strengthening institutions to ensure that management will be more effective. Often this requires:

- coordination *within* levels so that communities and people work collectively for the greater good; as well as

- coordination *between* levels (so that, for example, rules introduced at one level are supported (and not undermined) by rules or processes elsewhere.

Some key questions related to institutional strengthening include:

- What intervention is needed?
- Do policy or formal rules (eg legislation) need to be reviewed or changed to support the intervention?
- Are property rights (eg. access and management responsibilities) clearly defined? If not, what steps can be taken to improve this?
- What barriers constrain key organisations (government agencies and others) in their role? How can these be addressed?

Partnerships and coordination arrangements (include project consultative mechanisms and institutional arrangements)

Participatory programs that involve stakeholders at different levels generally require coordination and partnerships between stakeholders. These arrangements can take different forms:

- *Network*: A loose linkage of individuals around a particular topic or issue.
- *Coordination:* A closer arrangement for an agreed goal, activities undertaken individually but checked with other members against the goal.
- *Collaboration:* When two or more groups establish formal agreement to work together. Involves a clearly defined relationship and often written goals.
- *Consortium:* Open and non-binding. Any individual or organization with an interest in the goal can join.
- *Alliance:* Usually has a legal basis and a permanent organizational set up.
- *Joint-venture:* An arrangement where two or more parties undertake a specific economic activity together (Borrini-Feyerabend et al., 2000).

It is possible that partnership arrangements for the project could involve more than one partnership type.

Project managers and facilitators, together with stakeholders, will need to assess potential partnerships and partnership responsibilities early in the project design stage to ensure that all project partners have a common, clear understanding of their obligations, responsibilities and commitments to the project. Failure to address this early in the design phase will lead to difficulties throughout project implementation. (SPREP/IWP, 2003 Guidelines).

Some key questions to consider in relation to partnerships include:

- Which stakeholders will be involved in partnerships?

- What kinds of partnerships are appropriate? (Consider the options mentioned above.)
- Is everyone clear about who is responsible for what?

  Written agreements or guidelines can help clarify responsibilities and obligations for stakeholders.
- What will we do if there is conflict between partners?

  In some projects, arrangements for dealing with conflict or disagreements are specified in written agreements.

You may find it useful to use a table such as the one below to help you think explicitly about these issues and prepare for potential disagreements:

Table 1: Assessing partnership potential

Existing or potential Partners	Partnership type	Purpose/Strength of partnership	Problems/constraints in partnership

Source: Borrini-Feyerabend et al., 2000.

Stakeholder Participation

The stakeholder analysis (see Module 3) will highlight which potential stakeholders will have a strong interest in or influence on project activities. Some key questions to consider in relation to engaging stakeholders in the project include:

- Which stakeholders should be encouraged to participate in the project? Why? (thinking about reasons will push you to consider their interests and influence.)
- Where? (… physically will you meet with these groups)
- When? (...in the process will their involvement be sought)
- How? (…will they be invited to participate in the project)
- Do you anticipate any difficulties in promoting participation by certain groups?

This will help you consider any special strategies you may need to engage and work with particular groups or individuals.

Capacity building and Training

Learning is important to participatory NRM at a number of levels: for project managers and facilitators, for key organisations involved in the NRM issue they are working with, and amongst community and other stakeholders. Learning is about improving the capacity of individuals and organisations to work effectively towards sustainable resource management.

In this sense, it is a very broad process, and can include such diverse elements as collaboration and facilitations skills, management skills, and greater understanding about the resource and socio-economic context.
It is therefore important to think broadly about capacity and how it can be built. Formal training courses are one approach. However, don't forget other options such as:

- mentoring (supervision and advice from experienced resource people),
- reflective practice (reflecting on what you learn as you 'do', for example keeping diaries and holding workshops/discussions to reflect on personal learning)
- on-the-job training (learning by doing with supervision from someone experienced or knowledgeable about the task or skill you are trying to learn).

Think also about opportunities for sharing experience with other facilitators of participatory NRM projects in your area, country, region and generally.
Some key questions to consider in relation to training and capacity development include:

- What capacities do project staff and stakeholders need to carry out their roles/participate in the project?
- Are there additional skills and knowledge that they need? This will involve thinking about what skills and knowledge they already have.
- What are the best ways in which to meet these needs?
- Are there any costs involved? Have we budgeted for these?

Monitoring and evaluation
It is important to plan for monitoring and evaluation as part of a learning approach. Monitoring is a process of gathering data at regular intervals on specific indicators or issues to look at impacts and changes related to a project (Bunce et al., 2000). Monitoring enables us to check how we are going with meeting project objectives during implementation, and what kinds of impacts the project is having on stakeholders, so that activities can be modified accordingly.
Evaluation occurs less frequently than monitoring (for example, mid way through and at the end of a project cycle) and enables us to see how effectively the project is meeting or has met its goals, and to share lessons covered in an evaluation including:

- *Relevance*: How well the project in addressed needs/problems
- *Effectiveness*: Performance of the project in addressing its objectives
- *Efficiency*: Rate and costs at which activities lead to outputs (costs, implementing time, social, economic and financial results)
- *Impact*: Broader ecological, economic, technical, social and political consequences (as relevant)

- *Sustainability*: Potential for continuation of project activities, institutions and impacts after withdrawal of external support. (source: IWP National Coordinator Meeting II Training Materials, 2002)

We will not go into the details of how to conduct monitoring and evaluation here because this goes beyond the scope of the current kit (a useful publication by Bunce and Pomeroy, 2003, covers monitoring and evaluation in considerable detail). It is, however, important to consider at an early stage what you need to carry out a monitoring program, and start to consider what sorts of 'indicators' or signals may be checked over the duration of the project. Also, monitoring is of no use to a project and stakeholders unless the results of monitoring efforts are used to revise and improve the overall project being monitored (Biodiversity Conservation Network n.d.).
Some key questions you need to consider in developing a monitoring plan are:

- What factors or indicators do we need to consider over the life of the project (see Issue 4 below for an explanation of indicators)?

Issue 4: Indicators of change

Indicators are features of the social, economic and biophysical environment that tell us about change. These features may be things that are measurable, as well as changes that can be described, but not counted. Because we can't monitor everything, choosing sensitive indicators about some key processes can tell us a lot about the effects a project may or may not be having (Russell and Harshbarger, 2003).

For example:

- Where new or altered resource management rules are in place, a useful indicator may be the number of breaches of rules and the level of fines raised for non compliance
- Where a project involves some kind of income generating venture, indicators may include: gross revenues; employment levels; the volume of goods and services produced; and economic sustainability including:
    - volume of harvests
    - catch per unit effort
    - royalties or access charges
    - the price of a good or service involved
- Indicators of the social sustainability of a project may include:
    - levels of participation in a project
    - distribution of profits across households or groups. (Lal and Holland, 2004)

- What resources will we need for M&E? (Think about knowledge and skills as well as financial resources and personnel.)
- How will M&E findings be used? By whom?

- Are there any special training and assistance needed from resource people?

In relation to evaluation, some aspects of a project to consider at this time include:

- What changes did the project engender?
- How efficient and sustainable are the changes?
- Did the changes justify the investment? (Was this a worthwhile investment or would we have been better off to invest the money in another activity?)
- What did we learn?

Replicability

Reflecting on lessons learned and sharing information on our experiences is central to good professional practice. This also enables replication of initiatives: following on from projects by using a similar approach or framework elsewhere. Some key questions to consider in relation to replicability include:

- Is the approach we are taking here going to be relevant and useful to other communities or stakeholders grappling with this issue?
- How are we documenting and sharing lessons to enable others to learn from our experience?

Sustainability

Finally, since sustainability in NRM and achieving behavioural change are our goals, we need to think beyond the life of a specific project.

- Will the changes introduced in a project be sustainable beyond the life of the project?
    - Will it be socially sustainable?
        - To what extent will stakeholders have ownership of project initiatives after it has ended?
        - To what extent will stakeholders be able to sustain/use the technology after external support has ended?
        - What will the longer-term social and environmental impacts be and how will any negative impacts be mitigated?
        - Will marginalised groups maintain access to project benefits?
        - Will stakeholders responsible for follow-up have the management capacity to guarantee this?
    - Is it economically and financially sustainable?
        - To what extent will there be sufficient finances to allow for continued running costs, maintenance etc?

        - Is there a 'succession strategy' for the project beyond the funding cycle?
    - Will it be institutionally sustainable?
        - To what extent will supportive policy continue after the project has ended?
        - Are mismatches or conflicts between rules at the local, regional or national level being addressed? (Worah et al., 1999)

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Module 2. Engaging stakeholders

Module aims

This module will help you understand:

- The concepts of stakeholder, community, participation and facilitation, which are central to facilitating participatory programs.
- The meaning of and reasons for taking a participatory approach to social assessment and project planning in a resource management project.
- The benefits of a learning and reflective approach.
- The skills required for effective facilitation and where your personal development needs may lie.
- Conflict, its sources, and some ways of managing it.

Topics

This module includes the following topics:

2.1 Stakeholder participation

2.2 Coordinating management efforts between stakeholders

2.3 A learning approach

2.4 Defining your role as a facilitator

2.5 Skills and attitudes for facilitators

2.6 Understanding and managing conflict

2.7 Communicating with stakeholders

Topic 2.1 Stakeholder participation

What is a community?

The concept 'community' means different things in different contexts. In this resource kit, the term community refers to a group of people living in a sub-village, a village or several villages in an urban or rural setting that use resources in a common area. As the case study below illustrates, community is often made up of diverse groups with opposing needs, capacities, and interests (Pollnac and Crawford, 2000; Whyte, 2002).

Case 4: Community is diverse

A marine conservation program in Melanesia found that women and youth had a special role to play in managing marine resources and education within the community. The program made special provisions to work with youth and women's fellowship groups to get them involved in project activities, and to engage them in spreading information and knowledge about marine conservation issues in the community.

In another Melanesian project, owners of small shops in a village were found to have unique interests in a marine conservation program. They were collection points for trade in marine resources, and they were the source of purchased goods and foods in the community. They could provide valuable information on species being traded and their financial value, but would also be impacted by efforts to reduce the harvest of any traded species and by a drop in community income levels.

(Conservation International, Milne Bay Stakeholder Participation Plan, no date; Mahanty 1995).

What are stakeholders

As discussed in Module 1, the people and groups who use and manage resources are often at the heart of resource degradation; the relationship between people and environment is captured in the adage 'to manage the environment, we have to manage people'. The first step in this process is identifying who the relevant people, or 'stakeholders', are.

In natural resource management, stakeholders are people, groups or organisations who use, interact with and depend on the resource, whose activities affect the resource or who have an interest or 'stake' in these activities. More simply, it includes those people or groups who:

- possess a stake or interest in, or
- are affected by management of the natural resource or issue with which we are concerned (Borrini-Feyerabend, 1996).

The term stakeholder can be used for individuals, communities, social groups or organisations to represent the diverse interests, differing social dynamics and relationships of power and influence around an issue (see Case 5 for an example of different kinds of stakeholders). In examining who the stakeholders in an issue are, it is important to look more closely into large stakeholder categories such as 'community' or 'NGO', where there may be smaller groups of people with diverse interests. For example:

- Within communities – the interests in a resource may be different depending on gender, age, religion, caste, ethnic affiliation, business size and type, or social ranking (examples: women, youth, chiefs, hunters, fishers, processors, traders).

- NGOs may have different interests depending on their scale of operation, the groups they work with, or their special interests (for example conservation, human rights or health).
- Government generally includes many specific departments. Within departments there may be national and provincial offices, and there may be different degrees of power and authority in decision-making (for example, the role of a local fishery officer would be quite different to the minister for fisheries).

Case 5: Stakeholders are everywhere!

In Vanuatu, stakeholders at the local, provincial, national and international levels are all important in natural resource management. Some examples of stakeholders at these different levels:

Local: chiefs, landowners, neighbouring villagers, church groups, women's groups, youth, settlers without formal rights, locally based extension officers and community development workers, local business people and local politicians.

Provincial: provincial government, Island Council of Chiefs, Island Council of Women, Island Council of Youth, Provincial Government Officers.

National: relevant government departments, national NGOs, National Council of Women.

International: environment organisations, regional/intergovernmental agencies, other international organisations, bilateral aid agencies, international donors.

(Whyte, 2002)

In order for a project to take account of and work with and influence these different groups and their interests, it is important to think deeply about which smaller groups or individuals are nested inside the broad stakeholder classifications that come up in relation to an issue, problem or goal.
Bear in mind that resource management issues often involve stakeholders that are very localised, for example fishers living next to a reef, as well as stakeholders that are more distant but can still have strong interests or be influential in what happens to resources on the reef (see Figure 3 in Topic 2.2 for more information).

Ways to identify stakeholders

Some people find it helpful to classify stakeholders to help them think about their relationship to the resource management issue, and how they may need to be involved in a project:

- **Primary stakeholders** are the ones with a ***direct***, significant and specific interest in a given area or set of natural resources. These people will be most directly affected by the issue, as well as any activities to deal with the issue. It will probably be important to directly involve these people in decisions related to the project. Some examples of primary stakeholders include men and women fishers, reef harvesters, people who are drinking or using contaminated water, etc.
- **Secondary stakeholders** do not use the resource or depend on the resource directly. Yet these people do ***indirectly*** use the products or services from the resource; also their actions may impact on the resource. Some of these stakeholders may be very influential and important to resolving the resource problem, and it may be important to

consult them or make them aware of project activities. Examples of secondary stakeholders for marine resource degradation include fish sellers and overseas families.

- **Third level** stakeholders or key organisations, including organisations with direct responsibility for managing activities affecting the resources or dealing with the primary or secondary stakeholders. For example, government agencies, informal or community organisations (e.g. women's groups, religious organisations, local environment committees), universities and colleges, and non-government organisations.

The process of understanding the stakeholder picture is called stakeholder analysis, and is described more in Module 3. It may seem daunting to try and understand such a complex stakeholder picture! If we use stakeholder analysis at different times in the project, our understanding of who the stakeholders, of important sub-groups, and their interests can deepen over the life of the project. It is therefore important that we do stakeholder analysis not once, but many times during the life of a project, and with different people.

A **first or preliminary stakeholder analysis** at this community engagement stage helps the project staff at the beginning to identify some important groups that they may need to talk to. Later, the method can be used with the stakeholders themselves to build a richer picture of who the players are in the resource issue (during the 'assessment' stage). **To allow for this learning process, it is very important that the project has the flexibility to work with additional stakeholders as it proceeds; you do not want to lock out important stakeholders that you did not know about early on in the project cycle.**

What is participation?

In development and natural resource management, there has been a shift from projects being designed in a top down way, to an approach where stakeholders in an issue or resource are involved in making decisions about how the issues should be managed. The term 'participation' is now commonly used in the language of projects, but can mean different things to different stakeholders.

Because of the different meanings of participation, it is useful to reflect on the different ways in which stakeholders are currently participating in various kinds of projects (see Table 2). This ranges from 'passive' participation, where people are merely told what is going to happen (a questionable mode of participation) to self-mobilisation, where people themselves are initiating the action.

Table 2 A Typology of Participation

Type of participation	Characteristics of each type
Passive Participation	People are told what is going to happen or has already happened. This involves a one-sided announcement by project managers, without listening to people's responses. The information being shared is 'owned' by external professionals.
Participation in Information Giving	People participate by answering the questions of external experts and project designers. People do not have an influence on what comes out of the project, as information and ideas are not shared and there is no checking with stakeholders about the accuracy of information.
Participation by Consultation	People are consulted, and external people listen to views. The problems and solutions are designed by external stakeholders, who may change these in the light of people's responses. Such consultation does not give local stakeholders any share in decision-making, as professionals are not required to take on board their perspectives.
Participation for Material Incentives	People contribute resources, for example labour, in return for food, cash or other material incentives. For example, farmers in agricultural research may provide their fields to test a crop, but are not involved in the experimentation or the process of learning. It is very common to see this called participation, but people have no stake in carrying on activities when the project ends.
Functional Participation	Stakeholders are involved after major decisions have been made rather than early in the project cycle. People form groups to meet project objectives that have been developed by external stakeholders, or sometimes an externally initiated body may be set up to coordinate the efforts of local people.
Interactive Participation	Stakeholders jointly analyse the problems, formulate action plans, and work to set up new local institutions or strengthen existing ones with a lead role in decision-making. Interactive participation often has a strong learning component, and involves working with different kinds of knowledge (local-technical, social-scientific) to pick up on different perspectives.
Self-mobilisation	People take the initiative to change systems or practices. They may develop contacts with external institutions to get resources and technical advice, but retain control over how resources are used. Self-initiated programs may sustain rather than challenge local inequities in wealth and power.

(Pretty et al., 1995)

As project managers and facilitators, it is important to stop and consider what kind of participation you are aiming for in the project, and the constraints and opportunities to achieve this. Bear in mind the suggestion of one researcher, that sustainable development projects need at least 'functional participation' to achieve sustainability, where stakeholder are involved in implementing project activities even if they have had a limited input to designing them (Pretty et al., 1995).

A useful way of thinking about participation is as a process of negotiation and network building between the stakeholders in an issue or project (Leeuwis, 2000, Mahanty, 2002b). The job of project staff is then to facilitate a process of negotiation between different stakeholders. This starts with engaging the right stakeholders, help them to coordinate their activities, facilitating dialogue and helping stakeholders to build the relationships, skills and knowledge they need to plan and sustain their management of resources into the future (Mahanty, 2002b, Whyte, 2002, See Case 6 below). This is important because many natural resource issues in the Pacific require not only community engagement, but also input and support from provincial, national and even international stakeholders. Thinking of stakeholder networks helps us to focus on how we can coordinate efforts at these various levels in the NRM projects we facilitate.

Case 6: Knowing the stakeholders

> The most important thing I have learnt so far in relation to facilitation is the need to be adequately prepared before entering a rural community. One needs to be prepared with respect to preliminary knowledge on the social structure within the community, who the influential people are and what conflicts if any are current.
> (Pers. Comm, Narua Lovai, PNG IWP)

In planning for participation, remember that the involvement of various stakeholders often changes through the life of a project. For example, when one stakeholder group is actively involved, another may be passive during development of a management plan (Whyte, 2002). Case 6 highlights that facilitators need to be aware of the power struggles over resources and authority that often emerge in and dominate participatory processes (Leeuwis, 2000).

It is important to think about the social, cultural, economic, political and logistical situation when planning who should be involved, when, and in what way. For instance, a key question for facilitators in the Pacific is how best to work with traditional leaders and institutions. Evaluations of conservation programs in our region, such as the SPBCP and BCN, have found that working with customary rules and institutions dealing with resource management can help to develop more lasting and appropriate resource management systems (Salafsky et al., 1999, Baines et al., 2002). Yet how participatory and equitable are these institutions? Issue 5 highlights some of the challenges in working through existing authority structures in a community.

Issue 5: Working with traditional leaders in participatory NRM

Traditional leaders, such as chiefs and councils in Polynesia and Micronesia and big men in Melanesia, often play a central role in decisions on resource management around the Pacific. This goes hand-in-hand with the existence of customary tenure of land and sea resources.

However working with traditional leadership systems also raises dilemmas for project staff that are trying to facilitate broad participation by stakeholders. For example, should a council of chiefs make the final decision on rules for using a reef area? Or should other stakeholders have a say? Here are some issues to consider:

- Where the authority of traditional leaders is strong, community members may regard them as the most appropriate authority for establishing and changing rules for resource use. In this case, some questions for you as a facilitator may be:

  How you can ensure that the interests of less powerful stakeholders (e.g. women and youth) are considered in establishing the resource rules?

  How can you deal with any 'political baggage', for example, competition for leadership or conflict between the current leader and individuals or groups in the community?

  Is there any tension between political (elected) leaders and traditional leaders?

- Where traditional leadership is strong, communities may readily comply with resource management rules instituted by its leaders. In many places, though, the authority of traditional leaders is eroding and a strong sense of ownership by stakeholders of NRM rules may help to gain wider compliance. Broader participation in decision-making can help to build this.

- Some resource management problems (e.g. vulnerability to climate change) may go beyond the experience of traditional leaders. Or there may not be an existing forum for dealing with a resource management issue, for example, managing pollution to the water table from multiple localities. In these situations, new arrangements for coordinating action may need to be considered.

While working with existing institutions is important, it is important to recognise that change is often an intrinsic part of these institutions. Dealing with new resource management issues or situations, addressing inequities that may be coming up through social change, and working with wider stakeholders may require a degree of adaptation. The question of how best to work with the traditional leadership in your project area can be answered through assessment, analysis, reflection and discussion with your colleagues. It is also important to keep an eye on how things are going through the monitoring program, so that you can address inequities, conflict or ineffectiveness in resource management.

(Baines et al., 2002, Mahanty and Russell, 2002, Salafsky et al., 1999)

Activity: Attributes of Participation

Purpose:

This exercise can be used with a project team to help them discuss the implications of 'participation' in terms of the attitudes, disposition, behaviours and capabilities that are necessary for effective participation in a participatory resource management project.

Participants:

Project manager and facilitators.

Materials:

Flip Charts

Envelopes

Colored Pens

Preparation:

1. Make one copy of the Attributes List per participant.
2. Cut out each attribute from the list and place one set of attributes each in one envelope.
3. Include some blank slips in each set in the envelope.

Time:

1 hour

Steps:

1. Explain that before we examine the concept of participation further, we will consider what attributes are important in relation to participation.

2. Stress that in this activity there is no right or wrong answer but that people will have to justify the choices they make. In so doing they should draw from their own personal experiences or knowledge in working collaboratively with partners in different situations. (If they have the experience ask them to focus on their work with local village communities).

3. Handout an envelope to each participant. Explain that each envelope has slips of paper with words depicting attitudes, behaviours or capabilities. Many of these attributes but NOT ALL are what one might hope to find in communities with whom one may want to work with in an participatory initiative. Some may not apply to all. Blank slips are included and provide an opportunity to add to the list.

4, Ask the participants to carefully review all the attributes and choose five in their personal opinion are the most vital to a programme that hopes to initiate effective participation with local communities.

DO NOT EXCEED FIVE. Prioritising the top five pushes people to consider what is really important to them. Give them 10 minutes to do this.

5. After they have finished choosing the attributes individually, explain the following small group task:

- Once they are in their small groups, they should independently discuss the attributes by each group member and come to a group consensus on a consolidated list of five attributes.
- After they have come to agreement on the five most important attributes for participation, they should paste or note these on a flip chart.
- They should be prepared to explain their choices as well as the process that has led to this.
- The groups will have 30 minutes for this task.

6. Divide participants into sub-groups of five or six and ask them to begin the group task.

7. At the end of 30 minutes ask a volunteer from each group to briefly discuss their process and reasons for their choice.

8. Initiate a plenary discussion using the following questions:

- What are the differences and similarities between the attributes selected by the different groups? Why?
- What were the differences in the process the groups went through in selecting the attributes? Was it easier for some groups than others?
- Did any groups add attributes that were not on the list? What were these? Why were they considered important?
- Which of the attributes listed as important are commonly found in communities?
- What attributes re lacking and need to be developed. (Think about your country and culture.)

9. Mention in closing that we will be looking at the different groups within a community in later sessions and will be discussing how to support these key attributes.

(adapted from Worah et al., 1999)

Attribute List

SENSE OF RESPONSIBILITY

INITIATIVE

COMMON VISION

VWILLINGNESS TO TAKE RISKS

TECHNICAL KNOW-HOW

POLITICAL CONNECTIONS

SENSE OF HUMOUR

PLANNING SKILLS

ABILITY TO MOTIVATE OTHERS

COMMUNICATION SKILLS

ENTHUSIASM

RESOURCEFULNESS

SKILLS IN MANAGING CONFLICT

LEADERSHIP

FINANCIAL RESOURCES

WILLINGNESS TO ACCEPT ADVICE
WITHOUT QUESTIONING

ACCEPTANCE OF WOMEN'S ROLES IN DECISION-MAKING

STRONG CULTURAL IDENTITY

HIGH LEVELS OF LITERACY

OPENNESS TO NEW IDEAS

STRONGLY HIERARCHICAL SYSTEM OF DECISION MAKING

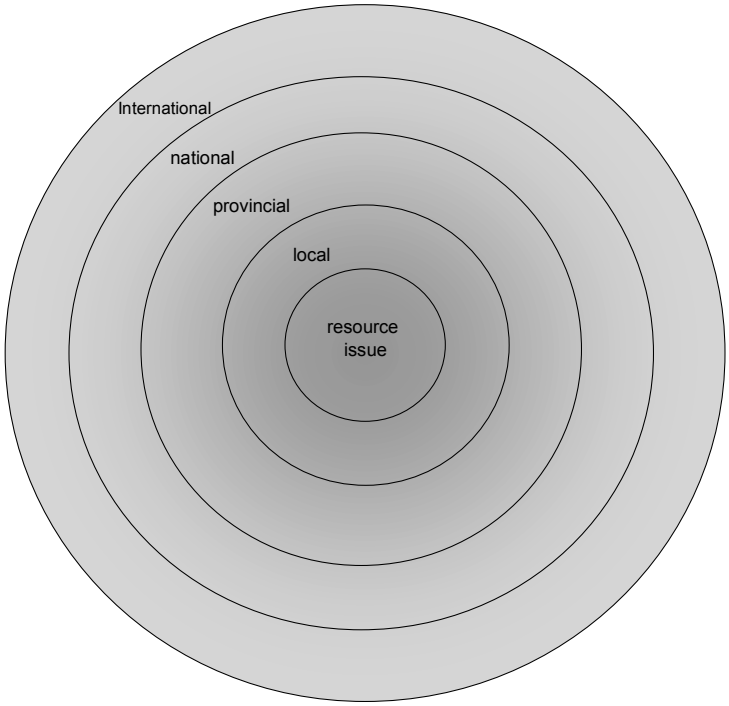
DEEP ROOTED SPIRITUAL BELIEFS

RESISTANCE TO CHANGE

Topic 2.2 Coordinating management efforts between stakeholders

In Module 2.1 we considered the local, national and international stakeholders who play a role in resource management issues. As well as there being stakeholders at different levels, there can also be rules and issues at the various scales that are interacting with a local resource management issue. These multiple layers of management of a resource issue are represented in Figure 3 as an 'onion', with the resource management issue at the heart, surrounded by layers of rules (institutions) and stakeholders (individuals, groups and organisations) that interact with the issue. There may be additional levels (eg. Districts that cover a number of villages) that have not been shown in this picture. Similarly, local level stakeholders may live in the immediate area or include neighbouring villages, for example groups from different communities who come to fish in a certain area.

Figure 3: Levels of a resource management issue



As you will later see in the problem analysis activity (see Module 3.2), problems in resource management can be caused by an absence of rules to guide resource users, inappropriate rules at particular levels, a mismatch between rules at different levels (e.g. Government law may conflict with local management arrangement or ecological boundaries), and lack of information flow and coordination between stakeholders (Lal and Keen, 2002). For facilitators of participatory NRM projects it is therefore

important to think about how they can promote coordination between the stakeholders at these various levels, and create a better 'marriage' of the rules that are operating at these different scales. Here are some examples of how three different projects in the Pacific have approached this coordination task (see Case 7).

Case 7: Coordinating stakeholders in the Pacific

The South Pacific Biodiversity Conservation Program established Conservation Area Coordinating Committees with representatives from key stakeholder groups. Membership varied from country to country, and may have included landowners, resource users, government representatives and NGOs. In some cases, these provided an important avenue for coordination between groups that needed to work together on a resource management issue (Mahanty, 2002a).

The Pacific International Waters Project set up National Task Forces in some countries to oversee project implementation. The NTFs were intended to be a 'multi-sectoral' body, meaning that they included both government and non-government interests. Initially the NTF oversaw selection of a focal area (resource issue) and host community for a pilot project. As the project developed, it was envisaged that the NTF could change its membership to include any additional relevant stakeholders, and:

- oversee the implementation process.
- provide support for national level policy and sectoral issues in order to support country activities to address environmental problem in the focal area.
- be the main forum for discussing results and issues related to the project. (SPREP/IWP, 2003 Guidelines)

A marine conservation project in Samoa established a Marine Park that was managed through a District Committee, which included chiefs from each village of the district. The project also employed a District Officer recruited under the recommendation of the District Committee to oversee day-to-day activities for the Park, and village working committees to consult with a range of other groups. The project also signed a Memorandum of Understanding with the Government of Samoa, to enable coordination with the relevant government agencies (Draft Safata Marine Protected Area Management Plan 2002-2006).

The first two cases often involved the establishment of new agencies, although in some countries existing agencies may have taken on the required role. The last project worked more closely with existing institutions, which were strong and functioning at the local level (see also Case 6: Working with traditional leaders in participatory NRM). In some cases, stakeholders may well be coming together for the first time to work on an issue of shared interest (see Case 8 below).

Case 8: Getting stakeholders together

A manager of a participatory NRM project in Vanuatu notes:

Nine villages who had little interaction in relation to environmental management are now coming together to talk to each other discussing their environmental related concerns and issues. Stakeholders at the provincial and national level are beginning to collaborate with each other on issues related to coastal resource management.

Pers. Comm. Leah Nimoho, IWP, Vanuatu

Topic 2.3 A learning approach

In natural resource management we deal with natural and social systems that are by their very nature dynamic and therefore unpredictable. Lessons from community based resource management programs in the Pacific have shown us that in this context it is impossible to design the 'perfect' project; we will never have enough information to make sure we have covered all the possible issues and surprises that can come up while developing and implementing a project.

Case 9: Learning as we go

A community based conservation program in Papua New Guinea collected information on wildlife exports from the area to keep track of wildlife being exported from the area, the species and collection methods involved. A simple form was developed for use by airline staff transporting freight from the area.

This information was used to analyse how income-generating activities for the project compared with the less sustainable activity of wildlife trade. It helped the project team to assess the effectiveness of project activities and plan for the next phase of the project.

Johnson, A. no date, "Measuring our success", *Lessons from the Field,* BSP, Issue 3.

Because of this, many practitioners are starting to take a more experimental approach to projects, rather than following a detailed project design (or 'blueprint') to the letter. This kind of 'learning by doing' approach needs to be supported by a good monitoring system, to check on the strengths and weaknesses of various approaches and activities. Case 9 shows how this information can then be used to adapt and change project activities if necessary to make them more effective and equitable. Such an approach of 'learning by doing' is called **adaptive management** (Borrini-Feyerabend et al., 2001).

In a participatory program, learning has another important dimension. It is a collaborative venture by a network of stakeholders, because it is this wider group of people, rather than a small project team or donor agency, that ultimately needs the knowledge and capacity to sustainably manage their resources. For this reason, many of the methods for gathering and analyzing information in this kit are participatory. We also look at how to communicate findings with stakeholders so that they can consider the implications and make informed decisions about what to do next.

The project cycle used in this resource kit has 'learning' as one of its guiding principles. The monitoring and evaluation stage are very important for analysing lessons during project implementation as well as at the end of the project cycle. These lessons can be used to adapt project activities, and be shared with a wider community of people, who may be able to apply that knowledge elsewhere. Participatory monitoring and evaluation methods are a crucial part of a collaborative learning approach. While they are not covered in detail within this resource kit, there are other useful resources on this topic (see http://ipo.nos.noaa.gov/coralgrantsdocs/SocMonMan_SEA.pdf for a copy of the IUCN's manual on socio-economic monitoring for South East Asia).

Another important aspect of learning is for staff to stop and reflect regularly on how they work with each other and stakeholders. This is covered in more detail in Topics 2.4 and 2.5 below.

Topic 2.4 Defining the role of a facilitator

Facilitation has been defined as helping a group successfully achieve its aims and tasks while functioning as a group. Facilitation can also mean to:

- enable, or 'make easy'
- help people to help themselves by simply being there, listening and responding to people's needs
- support individuals, groups and organisations during participatory processes.

A facilitator is different to an advisor or resource person who may suggest particular directions and approaches to stakeholders. Instead, a facilitator helps a group to work through their issues and move towards their own solutions (Braakman and Edwards, 2002).

Various project staff can have a facilitation role, whether they are project managers, or facilitators working directly with stakeholders (see Issue 6 below). At a broad level, the aim of facilitation is to support a long-term process of discussion and decision-making by multiple stakeholders to enable them to manage resources more effectively. More specifically, the aim is to create an 'enabling environment' where the views and perspectives of different stakeholders can come forward. At an even more specific level, facilitation involves running meetings and workshops that can help groups to identify and work through issues (Braakman and Edwards, 2002).

Issue 6: The facilitator's role

The facilitator's role is to support everyone to do their best thinking. They need to ensure participatory values are maintained and that people can work together effectively.

A facilitator has the opportunity and responsibility to teach stakeholders how to design and manage effective sharing, problem-solving and decision-making processes.

The facilitator is responsible for designing and running meetings, and helping the group to set up clear processes for thinking, discussion and decision-making.

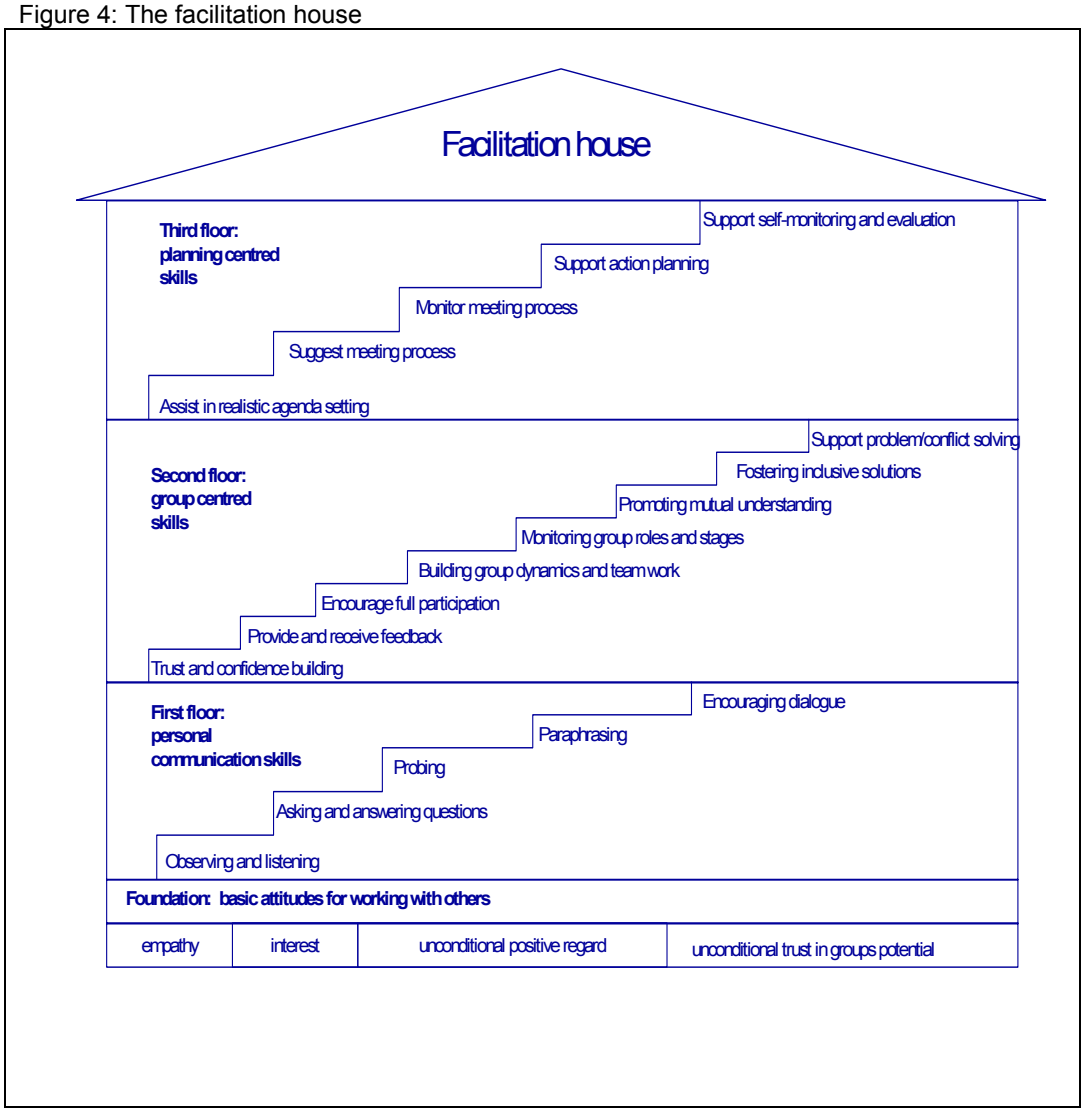
As you gain experience as a facilitator, you can tap into a range of thinking activities that can be offered to groups as needed to help them achieve their goals.

Facilitators can also reflect what is happening within the group (the group 'dynamics') to ensure good participation and fair decision-making processes within the group.

Source: Braakman, L. and K Edwards, 2002. *The Art of Building Facilitation Capacities*, RECOFTC, Bangkok.

Another way to understand the role of the facilitator is as a resource person and caretaker of a large house (see Figure 4). Using our house example, while the final building is the task of the group, the facilitator is responsible for watching the building floors and steps to make sure nothing is forgotten, and to help the stakeholders get to their goal (Braakman and Edwards, 2002).

Figure 4: The facilitation house



(Braakman and Edwards, 2002)

This kind of role, where you focus on guiding the process without putting forward your own opinions and ideas, is called being **content neutral**. This means not taking a position on the issue being discussed, or having a stake or position on the outcome. Such a role fits with a project aiming for 'interactive' participation. Remaining content neutral can be challenging when you have specific technical knowledge that is relevant to an issue being discussed. It is important to remember that there may be a space to share such knowledge, but when you start to do this you are stepping out of the facilitation role (Braakman and Edwards, 2002).
Another important point about content neutrality is that it is most appropriate when stakeholders can genuinely establish the aims and objectives of a project. Where these have already been decided, for instance a marine park is to be established, then the stakeholders are not designing the 'house', but deciding how to build the house that someone else has

designed. In the participation typology (Table 2), this was called 'functional' participation; having less input to the overall direction of a program may result in a lower degree of stakeholder ownership and stake in the project.

This resource kit contains many methods to help groups of stakeholders identify and analyse issues, discuss options and make decisions about their future management. It is important in using these to remember that your role is to facilitate the group in this thinking and negotiation process. This may require you to develop some of your facilitation skills (see Topic 2.5) and to keep the bigger picture in mind: that you are trying to take stakeholders to a place where they have reflected on the issues and are better informed and capable of making their NRM decisions.

Clarifying your role

Understanding your facilitation role is one thing; but you also need to clarify this with other people (see 'Tips for a self-aware facilitator'). When you approach stakeholders as a project staff, people are likely to have many different beliefs, ideas and expectations about who you are, what your role is, and what you are going to do for them. These ideas may be based on their experience with previous programs, their understanding of what you tell them, their beliefs about people who coordinate projects, and so on. As a facilitator, you can encounter a lot of 'baggage' that has little to do with your own actions! Importantly though, this 'baggage' needs to be managed effectively to build the networks and relationships that are needed to work towards sustainable resource management.

The basic foundations and skills outlined in the facilitation house will stand you in good stead. In addition, here are some basic tips you might consider in working with stakeholders (see 'Tips for a self-aware facilitator').

Attention to these issues at an early stage is likely to help you clarify your role, and deal with any 'baggage' that projects past have left with stakeholders. However it is still important to stay alert and look out for issues around your role and people's expectations during the life of the project. This list of some common issues, and possible options to deal with them come from the previous experiences of facilitators working in participatory resource management projects (see Issue 7).

Tips for a self aware facilitator:

- ☺ Be genuinely friendly
- ☺ Show respect and honour the people you work with
- ☺ Have faith in the people you work with
- ☺ Accept that people have their own values, behaviours and world views
- ☺ Show interest in all aspects of people's lives
- ☺ Step back and listen
- ☺ Behave as you would expect others to behave to you
- ☺ Explain any ground rules and limits of project
- ☺ Be sensitive to local custom as much as possible, and be prepared to ask for clarification where you are not sure about protocols.
- ☹ Avoid raising unrealistic expectations
- ☹ Do not judge
- ☹ Try not to project your own perceptions onto others
- ☹ Do not assume that people need your help
- ☹ Don't give advice
- ☹ Don't think you know better

Source: (Braakman and Edwards, 2002: 93)

Issue 7: Common facilitation challenges in projects

Issue	Options
Desire for immediate action.	Explain benefits of getting it right the first time. Consider the possibility of initiating some activity early so there is some progress from the beginning, e.g. village cleanups can raise awareness, empower stakeholders and improve communication between groups.
Desire for 'stuff'.	Be clear and consistent about limits of project. People will generally act in their own interests, so if they are not willing to act, for instance, without payment, it probably means the program does not appear to them to be for their best interests. This is a signal to clarify what the problems are and perhaps change the program.
Confusion, especially among people who have not attended previous meetings.	Explain clearly. Summarise previous steps so new people will know what has happened before. Leave printed materials.
Lots of people don't participate in group meetings.	Split large or diverse groups up to work on different things at same time while reserving full group meetings for special needs.
Too much stakeholder time, effort and resources going into formal meetings.	Don't ask people to attend meetings when it is not really necessary for them to do so. Work with committees or sub-committees.
Dealing with complaints and requests that are outside bounds of project.	Be clear and consistent about project policies and make sure they applied fairly and transparently.
Sitting fees or meeting fees (where participants receive a fee for attending a meeting)	Be clear and consistent about project policies. Ask the stakeholder group itself to pay necessary and reasonable expenses for their leaders to represent their interests when working for their own benefit. Project should pay any other expenses.
Compensation for land or other resources.	Be clear and consistent about project policies and make sure they applied fairly and transparently.
Changes in project personnel—stakeholders want to see the same faces meeting after meeting.	Plan ahead and try to keep same personnel working with same stakeholder groups. Get formal commitments of employment contracts or appointments before starting work.
Unsure about whether community leaders are supportive.	Think about how you will work with community leaders, for instance briefing them before community meetings

There is one particularly important question for you to consider as a facilitator: what is your relationship to the community or stakeholders that the project is working with? Often, participatory projects engage and train community members as facilitators to work within their own communities. This is an important way to build capacity within communities, and develop the skills and tools to help local stakeholders work through resource management issues in the long term. However, locally based facilitators can face additional challenges in their facilitation role (see Issue 8 below).

Issue 8: It's not easy being an 'insider'

The term 'insider' generally refers to a person from 'inside' a local community. However, facilitators drawn from any group of stakeholders in a project may face similar issues to community based facilitators when working with their own stakeholder group:

- Role confusion – the facilitator may get lost between the content neutrality they need in their facilitation role and the interests and views they hold as a community member and stakeholder.
- Micro-politics – the facilitator may have a history that ties them to one or another group in the community, or a history of conflict with certain groups, making it difficult for them to work together.

These issues do not detract from the value of local facilitators. Yet they do highlight the importance of having avenues to identify and talk about such challenges when they come up. Another related point when recruiting local facilitators is the need to think about where the prospective facilitator sits within a community, their background, affiliations and power.

Finally, it is worth remembering that while you strive to be independent and neutral as a facilitator, when you work with stakeholders you are dealing with politics. One writer has used the term 'micropolitics' to describe the intricate processes that can go on around projects in a community setting. For example, there are often histories of conflict, alliances and competition between individuals and groups within communities. In multi-stakeholder programs, this 'micropolitics' may be played out in a bigger arena, with a lot more players involved (Sithole, 2002). As facilitators, it is imperative that we try to understand these processes so that we can manage them consciously, rather than being caught out! One facilitator shares their experience of 'micropolitics' in Case 10 below.

Case 10: Managing politics

"My most challenging experience as a facilitator has been to clarify misconceptions about the project which were based on false information spread by certain educated and elite members of the pilot project community. Although this was disappointing, I had to be patient in explaining to the people in later meetings the objective and scope of the project."

Pers. Comm, Narua Lovai, IWP PNG.

Topic 2.5 Skills and attitudes for facilitators

Becoming a good facilitator does not require you to be a technical expert or have a university degree! It does, however, require you to think about how you function in a group, and to be willing to stop, reflect and learn about the skills and attitudes you bring to your work. Building strong facilitation skills is a long-term process that requires training, mentoring and ongoing support for facilitators.

We will look more here at what some of these skills are, and help you to work out where you may need to develop further. More material on how to develop your facilitation skills can be found in an excellent resource kit on facilitation produced by RECOFTC (Braakman and Edwards, 2002), which is the source of much of the facilitation material presented here.

The facilitation house presented earlier (see Figure 4) highlights important attitudes and skills that can support good facilitation. At the foundation of the house are important **attitudes** such as empathy (the ability to 'put yourself in another person's shoes'), interest, unconditional positive regard (respect), and trust in the group's potential. These attitudes are communicated in your words, tone, body language and behaviour.

Above this, there are three sets of **skills** that help the facilitator in their role:

Personal Communication skills: the ability to listen, observe and express yourself as a facilitator, as well as encourage contributions from participants in a process.

Group-centred skills: the ability to promote the capacity of the group to work together.

Planning-centred skills: these skills help the group set and move towards their goals.

Being **self aware** is another important capacity you can bring to the facilitation role.

Activity: How are my Facilitation skills?

Purpose:

This activity aims to raise your awareness of the skills needed by a facilitator and where your development needs may lie. It is an activity for individual reflection that you can do by yourself, or individually in a workshop setting.

Participants:

Can be undertaken by individuals working in a facilitation role or by participants in a training workshop.

Time:

15 minutes

Steps:

1. The table below lists a range of facilitation skills. Read each skill and reflect on how well you master this facilitation skill.
2. Rank yourself from 1 (=poor) to 5 (=highly skilled). Then rank how you wish to be, keeping in mind the kinds of activities you will need to facilitate.

Scoring: 1=poor, 02=so so, 3=some idea, 4=skilled, 5=highly skilled

Facilitation skill	Rank now	Want to be
1. Listen attentively		
2. Ask questions to the group		
3. Observe body language and group interactions		
4. Answer questions from the group		
5. Summarise what somebody has said		
6. Summarise group discussions		
7. Give feedback to individuals		
8. Give feedback to a group		
9. Be open to receive feedback from the group		
10. Encourage quiet people to speak		
11. Encourage dominant people to listen to others		
12. Facilitate an open discussion in which all group members can share their ideas and participate		

Source: (Braakman and Edwards, 2002)

Personal Communication skills: the first floor

In the 'facilitation house', we saw that good personal communication skills were amongst the necessary skills and attitudes for a good facilitator. Communication skills that are important in facilitation include:

Listening: Listening is an active process of paying attention and searching for meaning in what is said. The listening checklist below will help you to focus on your listening skills and areas for improvement.

Questioning: questions can be used to help group members to reflect, and think about issues, and make decisions. There are different types of questions that can be useful for different purposes in group meetings. See the checklist below on 'types of questions' for more details.

Probing: probing is related to questioning, and involves asking follow-up questions to gain more understanding about an issue.

Paraphrasing: this is repeating what someone has said using your own words to check you have understood their meaning, reassure the speaker that they are being heard, and share what the speaker has said with a wider group. Braakman and Edwards (2002) suggest that paraphrasing should be used selectively or it can slow down interactions discourage active listening by the group.

Encouraging dialogue: dialogue is an open conversation where participants take equal responsibility and try to understand each other. Unlike debate, dialogue is not competitive, but involves listening, questioning/probing and looking for the best solutions. Facilitators can promote dialogue by clarifying the objectives of a meeting or exercise and the importance of effective listening, probing and paraphrasing and encouraging other participants to do so, challenge preconceived ideas or assumptions. (Braakman and Edwards, 2002)

Activity: Listening checklist

Purpose:

To help you assess your own listening skills.

Participants:

This activity can be done by you individually, or used by individual participants in a training setting as an introductory exercise for facilitation skills.

Time:

20 minutes

Steps:

1. Think about how you listen, whether you are dealing one-on-one with another person or in a group setting.
2. When you have answered all of the questions on this checklist, you will have an idea of where your strengths are as a listener and areas where you can improve your listening skills.

Questions	Never	Seldom	Sometimes	Often	Always
Do I listen for feelings, attitudes, perceptions and values as well as facts?					
Do I try to listen for what is not said?					
Do I avoid interrupting the person who is speaking to me?					
Do I actually pay attention to who is speaking instead of pretending I am?					
Do I listen even if I don't like a person or agree with him/her or find him/her dull?					
Do I work hard to avoid being distracted by the speaker's style, clothing, voice or behaviour?					

Do I make certain that a person's status has no influence on how well I listen to her/him?					
Do I avoid letting my expectations (hearing what I want to hear) influence my listening?					

Source: (Braakman and Edwards, 2002: 128)

Checklist: Types and uses of questions

Questions are an important tool for facilitators to help engage stakeholders in discussion and to obtain information. Yet not all questions are the same! This table shows you some of the different types of questions available to you as facilitators, some of their uses and risks.

Types of Questions	Uses	Risks
General questions: addressed to the group as a whole, perhaps written on a chart or board.	Stimulates thinking. Useful for starting discussion.	Not directed at anyone in particular, so may not be answered. A wrong question can misdirect a process. Need sufficient thinking time or it may not work.
Direct questions: addressed to an individual by name or sub-group.	Good chance it will be answered. Useful to involve silent/shy people. Can shift the focus from vocal people. Can tap a resource person in the group (eg. Fisher). Can take the discussion back to a relevant point that got lost in the discussion.	Can embarrass unprepared group members. More effective if followed by general discussion to move focus back to the group.
Open-ended questions: Start with who, what, when, where, how, why questions that cannot be answered with a simple yes or no.	To get concrete information. Makes people think. Improve quality of discussion by bringing out new information. Good for analysing problem situations.	More difficult to answer. 'Why' questions may be seen as threatening. Facilitator needs to build on responses for the information to be useful.
Factual questions: Asked to gain factual information to individuals or groups.	To clarify information. To steer away from assumptions or generalisations. Useful in early stages of discussion.	Few people who know the 'facts' may monopolise discussion.
Redirected	Ensures answers come from	May give impression

question: Facilitator throws a question asked to them back to the group.	group members. Can promote lively discussion.	the facilitator is not knowledgeable or is avoiding an issue.
Leading question: The expected answer is implicit in the question.	Useful in redirecting a discussion that has gone off track. Helpful in taking charge of the process.	Can be manipulative. Good points can be lost if the facilitator is anxious to take control.

Source: (Braakman and Edwards, 2002: 132)

Managing group dynamics: the second floor

The second floor of the 'facilitation house' covered skills to manage the group process to ensure participation by group members. Full participation in meetings and processes related to the project can be difficult where meetings are dealing with difficult or sensitive issues and when some groups hold less power and influence and are hesitant to speak up. Facilitators can encourage participation by:

- being a good listener
- not judging comments and contributions
- encouraging shy people in a non-threatening way
- discouraging dominance
- not rushing

There may be times when it is appropriate to work separately with some groups in order to give them a full opportunity to express themselves.
One of the facilitator's roles is the development of effective networks and negotiation processes amongst stakeholders. Some tips for facilitating this process can include:

- getting to know group members
- agreeing on and referring to group rules or norms
- encouraging the group to remind or challenge each other if the norms are not followed
- diagnosing the problem with the group if it gets stuck, and looking for solutions collectively
- giving constructive feedback about behaviour
- modelling norms of appropriate and expected behaviour
- being careful about how you form small groups
- counselling individuals outside the group if necessary (Braakman and Edwards, 2002)

Conflict within and between groups is a key issue in many natural resource management projects, and is therefore looked at separately in Topic 2.6.

Planning ahead: the third floor

The final floor of the facilitation house was 'planning centred skills'. These involve planning, designing and monitoring the meetings and activities to help stakeholders work through the relevant issues and get to a point where they can make decisions. One facilitator comments on the importance of planning in Case 11 below. Specifically, facilitators need to:

- Plan which stakeholders to involve and engage in different processes
- Design (and involve stakeholders in planning) agendas and activities to help stakeholders analyse and discuss issues, and work towards decisions.

Case 11: the importance of preparation

One of the most important things I have learned about facilitation so far is the need to prepare and organise the materials needed for a workshop or consultation meeting. The sequence of presentations and questions to discuss is an important factor contributing to a successful discussion.

Pers. Comm., Su'a Faraimo Ti'iti'i, IWP, Samoa

- Agendas: think about what is realistic to cover in a meeting, what is important in terms of content? What is important in terms of helping the group process along?
- Activities: the activities in this kit are designed to be used with stakeholders to understand resource management issues and their sources, and plan related actions.
- Group processes: think about the various alternatives available to you: large group meetings, small group meetings with specific stakeholders, sub-group activities within a large group, consultation with specific bodies, such as village committees, councils of chiefs and so on.
- Monitor how the meetings and activities are going. Some sample evaluation forms are included in this module.
- Support action planning by stakeholders. Action planning is covered in more detail in Module 6.
- Monitor and evaluate themselves as facilitators: reflecting on your progress is an important learning tool. You can use the skills checklist to see how you are progressing and where you want to go.

Project teams can develop guidelines to help with the initial stages of community engagement (see Case 12 below).

Case 12: Planning for community engagement in the IWP

The International Waters Project suggested that project managers and facilitators consider these points during the early stages of a pilot project in preparing for and engaging stakeholders

- Start with an informal site visit and discussions. They need to be well prepared and informed for these discussions.
- Prepare a first list of likely community problems, solutions and stakeholders based on what they already know from their past knowledge/experience and past reports/documents.
- Develop and carry out a detailed plan for contacting and meeting with main stakeholders.
- Prepare draft agendas for first meetings with main stakeholders and then reviewing that draft with leading stakeholders (eg. Community leaders).
- Meet or communicate privately with leaders to brief them, come to agreement about agenda, and make arrangements for meeting. That way they can get advice on community issues and processes, including any important leadership roles they need to have at the meeting.
- Make arrangements and gather the necessary materials for meetings.
- Think about how they will communicate with stakeholders, confirm meetings, prepare any handout sheets, transport arrangements, etiquette, lines of authority and other materials they may need.
- It could be useful to get laminated aerial photos or maps and write notes on them with markers.
- Consider times, locations, styles and resources for meeting with different stakeholders.
- The general rule is “No Surprises” in public meetings. This means being well prepared for issues that may come up.
- Where the main stakeholders are keen for some immediate action, the meeting needs to discuss and agree on the steps to be taken now and by whom.

(IWP Train-the-Trainer Yap workshop materials, 2003)

Activity: Preparing for stakeholder engagement – team discussion

Purpose:

To help a project team plan the initial steps in engaging stakeholders. Before beginning your meetings and interactions with stakeholders, it can be very useful to work out a common approach with your team.

Participants:

Members of a project team that have a facilitation role (eg. project manager, facilitators).

Time:

30 minutes

Steps:

Discuss and develop preliminary lists of:

- Your agreed, standard translation of the term “stakeholder”.
- If your project has a particular focus or scope, clarify what this and why.
- List of main stakeholders in the resource issues of concern to your project (this is likely to be very preliminary and broad at this stage and will be revisited at other points in the project).
- Detailed plans for contacting and meeting with main stakeholders.
- What are outcomes of initial meetings likely to be? Will any actions need to be taken, and by whom?
- Who your team may need to report to on your consultations and their outcomes, and how you will do this.

Checklist: Preparing for Community Consultations

Activity	
Review of initial overall process – How villages are going to be approached Contact of village councils Use of brochures Use of invitations Use of radio and TV announcements How meeting dates and times are to be established	
Review of meeting sequence and sequence of activities Number and type of meetings Sequence of activities Ensure that facilitators are familiar with the program of activities.	
Workshop Materials Review of materials required System for allocating materials	
Clarify financial arrangements Transport Refreshments Meeting hall costs	
Programme Schedule Establish calendar of target dates and community events Establish weekly group meetings to review progress, share what you have learned and discuss difficulties	
Management of Results Review how results are to be kept	

Source (adapted from IWP Niue facilitator toolkit 2002)

Checklist: meeting materials

Below is a checklist to help you prepare the materials that are commonly needed for community or stakeholder group meetings.

Item	
Flip Chart Paper	
Coloured Markers (Chisel Point)	
Scissors	
Stapler	
Paper Clips	
Pens for participants	
Note paper for participants	
Masking tape	

Source: adapted from Niue IWP Facilitator Toolkit 2002

Checklist: Venue preparation

Below is a checklist to help you prepare for community or stakeholder group meetings. Some activities are done days in advance and others upon arrival on the day of the meeting.

REMEMBER! Check on the venue and take inventory well in advance. Inspect the facilities. Be aware of the physical arrangements.

About the Venue:	
Adequate ventilation. (How hot or cold will it get?)	
Sufficient lighting for evening meetings.	
Chairs for all participants.	
Tables for small group work.	
Tables for holding resource materials.	
Sufficient space for small group work.	
Adequate wall space for posting flip charts.	
Toilets for men and women.	

Source: adapted from Niue IWP Facilitator Toolkit 2002

Checklist: meeting preparation

Below is a checklist to help you prepare for a community or stakeholder meeting.

Early Meeting Preparation:	
Plan the meeting agenda.	
Confirm the roles and responsibilities of each facilitator, recorder and timekeepers.	
Make sure everyone is informed about the meeting time, place and purpose.	
Check the activities you are doing and make sure you have the necessary materials in stock. (Use the materials checklist!)	
Confirm the arrangements for breaks – food and refreshments, coffee, tea, juice etc.	
Think about how late-comers can be included and who will up-date them on parts of the meeting they missed. They need to be informed but also you do not want to disrupt the meeting. Should take them aside? Who? Ensure the Agenda is clear enough so they know what has happened.	
Write up the Agenda. Use your best flip chart writing skills!	
Prepare flipcharts for the planned activities well in advance. Use your best flip chart skills.	
Prepare photocopies of needed handouts or information materials.	
Gather the materials for the meeting. Organise into baskets or boxes.	

Preparation at the Start of the Meeting:	
Get to the meeting half an hour in advance.	
Post your agenda and organise how you will post your flipcharts.	
Lay out stationery and activity materials.	
Move chairs into a circle or U-shape to help community members to participate.	
Organise tables for small group activities	

Source: adapted from Niue IWP Facilitator Toolkit 2002

Checklist: Suggested Meeting Agreement

These are some commonly used "ground rules" or rules about how people will conduct themselves in a meeting. You can post these up on a flipchart and see if the group wants to add any new ones, or ask the group to come up with their own agreement and check them against these to see that no important points have been left out:

Example of Meeting Ground rules:

- Allow everyone to participate.
- Any question or comment is a good question or comment.
- Everyone has the right to know (meaning they can ask the facilitator at any time why something is being done or said, and how it relates to the overall meeting aims).
- Show respect for each other. Be courteous, and listen to what others are saying.
- Those who did not participate in earlier meetings please listen and catch up with what was done before. You will get an opportunity to be heard and to contribute.
- Those who have been involved in earlier meetings help newcomers to understand what is going on.
- Explain your comments but also try and keep your comments to the point (we only have limited time and we want to hear from everyone!)

Source: Niue IWP Facilitator Toolkit, 2002.

Checklist: Form to Monitor the Quality of a Meeting Process

Village _____Facilitators _____

Date _____ Time Start _____ Time Finish _____

Item	Assessment
Pre-meeting preparation by facilitators	
Pre-meeting checklist completed	
Facilitators clear on roles and activity sequence	
Refreshments organised	
Meeting Introduction	
Clear introduction of meeting purpose	
Post and review of agenda and logistics	
Group agreement on process	
Explanation of how information is to be used & community ownership of outputs	
Meeting activities	
Activity instructions clear and complete	
Use of correct and clear examples for SA and PPA	
Small groups divided by stakeholders	
All participants involved in small group work	
Full presentation back of each groups work	
All participants interested and involved in large group discussions	
Facilitator content neutral	
Participants able to express ideas and concerns in their own words (no correcting or judging by facilitator)	
Meeting Conclusion	
Summary by facilitators of meeting activities	
Next steps/future meetings explained	
Evaluation forms completed by each person	
Participants thanked for participating	

Source: adapted from Niue IWP Facilitator Toolkit, 2003

2.6 Understanding and managing conflict

According to the dictionary, conflict means a clash or difference between opposed principles, statements, and arguments. Conflict has also been referred to as 'an intense experience in communication with trans*formative potential*'. This implies that conflict may be harnessed to achieve positive outcomes (Buckles and Rusnak 1999) if properly managed.

If we as facilitators want to turn conflict into a positive and transformative rather than negative and destructive aspect of a project, we need to be able to recognise conflict, understand the causes of conflict and develop the skills to help stakeholders manage it. We look here mainly at how to understand and analyse conflict. There are other resources that can help you work on your skills in conflict management, which are really an extension of good facilitation skills (see Means and Joysama, 2002 for more information on conflict and strategies on how to manage it).

Conflicts generally have a history, and as facilitators we may step in at different points in the history of a conflict.

- A conflict is **hidden or underlying** when there is no open recognition of conflict, although there are undercurrents and tensions between stakeholders.
- An **emerging** conflict is becoming more obvious as the tensions are being expressed through actions such as avoidance of contact between conflicting parties, informal discussions and alliance forming.
- A conflict is **visible** when it is publicly recognised and full-blown. This may involve outright hostility, complaints, and other unilateral actions by parties. (Means and Joysama, 2002)

Early intervention is important in managing conflict. It is often better to put the resources and time into managing a latent or emerging conflict, than to leave it to become a full-blown conflict that can derail a project, or require expensive and time-consuming intervention later on. It may not always be possible to resolve conflict, but we may be able to manage it a way that stakeholders' views and needs are expressed and systems are put in place to address their differences and grievances (Means and Joysama, 2002).

Conflict can be caused by many different issues. The following table (Table 3) highlights some of the key factors and options for managing these. The table can be used to help you analyse what issues may be contributing to a particular conflict. Note that conflicts generally have many dimensions, and do not need to fit into one or another category of issues, but thinking about the issues can help you to systematically think about what is going on and consider appropriate strategies. Note also that some sorts of conflict, for example conflicting values, may be more challenging to manage than others, such as Information issues (Means and Josayma, 2002).

Table 3: What causes conflict?

Type of issue	Elements	Points to remember in managing such conflicts
Conflicting interests	Conflicts over differing needs and desires, sharing of benefits and resource use Perceived and actual competition of interests Perceived or actual lack of shared interests	Identify common or shared interests Underlying needs may be satisfied in more ways than are at first obvious Clarify whether interests are real or perceived
Information issues	Lack of information or differences in interpretation of information Differing methods of assessing, evaluating, interpreting information Poor communication or miscommunication between parties	Reach agreement on information needs, how to obtain and verify it Reach agreement on criteria for evaluating/ interpreting information Third party may improve communication Encourage transparent decision-making
Difficult relationship	Differences in personality and emotions, misperceptions, stereotypes, prejudices Incompatible behaviours, different expectations, attitudes, approaches to problem solving History of conflict and bad feeling between parties	Identify specific difficulties, encourage parties to avoid generalisations in stating their difficulties with one another Aim to build positive perceptions and solutions Emphasise fair ground rules to be followed by all Work to realign/build relationships fostering care and willingness by participants
Structural issues	Differing ideas regarding appropriate processes, rules, roles and power Perceived/actual inequality or unfairness concerning power, control, ownership, and rules influencing access to and distribution of resources Decision-making strictures, time constraints, geographical and physical issues that hinder cooperation	Help disenfranchised groups understand their own and other parties' perceptions of the conflict Gain agreement on shared review of specific grievances (eg. Representation on a committee) Aim to transform conflict into a force for social change to enable sustainable and long term solutions
Conflicting values	Differences among cultural, social, personal beliefs or different world views and traditions Different goals, expectations, assumptions reflecting personal history and upbringing	Often the most difficult to change as some values may be non-negotiable Focus on interests or shared goals rather than resolving differing values Long term strategy to build respect and support sharing and understanding of values among stakeholders

Source: (Means and Josayma, 2002: 105-106)

Two of the methods covered in this kit can also be adapted to analyse conflict in your project:

- Stakeholder analysis: this can focus on what has become known as the 4 Rs: analyzing stakeholder rights, responsibilities, and returns in relation to a resource and relationships among stakeholders.
- Root cause analysis (referred to here as 'participatory problem analysis): this can be used to analyse the 'root causes' of a conflict rather than of a resource management issue. (Means and Josayma, 2002)

If conflict is a major issue in the communities or resource management issues you are dealing with, you will need to develop your skills in mediating conflict and possibly even be prepared to get help from a more experienced mediator (see Means and Joysama, 2002 for more practical ideas and exercises to help you). Some projects prepare guidelines for conflict management (see Case 13).

Case 13: Guidelines for managing conflict in the IWP

The IWP guidelines suggest the following "steps" for facilitators to approach the successful resolution of conflict surrounding a project:

- compile accurate background information on all parties;
- compile accurate background information to the conflict;
- determine a mutually convenient time for all parties to meet to discuss the conflict;
- invite each party to explain their position clearly. They should be permitted to do this without interruption;
- allow clarifying questions;
- identify areas of agreement or similar interests;
- identify areas of disagreement or conflicting interests;
- agree on a common overall goal for negotiation;
- compile a list of possible options to meet that goal;.
- evaluate each option against mutually agreed criteria (e.g. threats to the resource, livelihoods, etc);
- facilitate an agreement on the options that maximise mutual satisfaction among the parties;
- determine a process, timeframes and responsibilities for actions required to implement the agreement; and
- write up any decisions reached and get the parties to sign that agreement.

In preparing for negotiations to resolve conflict (which may or may not require the assistance of a skilled mediator), the facilitators are advised to check:

- all groups or people who have a stake in the negotiation are willing to participate;
- parties are prepared for the negotiation;
- each party has some means of influencing the attitudes and/or behaviours of the other party(ies);
- there are some common issues and interests on which the parties are able to agree;
- parties demonstrate a willingness to resolve their conflicts;
- parties are willing to compromise to some degree;
- parties feel some pressure or urgency to resolve the conflict;
- the issue is negotiable;
- the parties have some authority to actually make a decision, and
- any agreement reached is feasible and achievable.

Source: SPREP IWP Guidelines, 2003

Addressing Grievances

In this kit, a grievance refers to a complaint or allegation by a stakeholder that they are suffering some kind of hardship or injury as a result of the actions of a facilitator or other project staff, or because of project activities.

Some examples include complaints related to land disputes, delays or non-delivery of services, favouritism, corruption, the behaviour of staff or community members working with the project, or poor workmanship. Sometimes the new systems or technologies introduced by a project can result in complaints from users until community members are familiar with them – or until the flaws or weaknesses are addressed. For example, new waste management services may have many complaints from communities before things are worked out. Changes in existing community fisheries management systems or introduction of new management regimes may take time before they are running smoothly and accepted by all members of the community.

You may feel that good facilitation and project design should avoid such problems! Yet experience is showing that it is useful to anticipate grievances and have a process worked out for dealing with them.
From the outset there is a need to develop a "transparent" (meaning all parties can know or see what is going on) plan or plans to hear and deal with complaints during the project and after the project ends.
The plan or plans to handle grievances or complaints should be made with input from stakeholders and should be presented in the initial phases of working with these stakeholders (as part of the initial stakeholder engagement). The plans need to clearly outline:

- guiding principles for working with stakeholders (e.g. any guidelines developed by the project);
- the process for handling complaints;
- who would be responsible for what actions and should direct people to whom or where to direct their complaints. Include telephone numbers and names where appropriate;
- how the plan will be communicated to all stakeholders.

2.7 Communicating with Stakeholders

As mentioned in Topic 1.2, there are different methods for communicating with stakeholders depending on what it is you want to communicate and who your target group is. It will be important to provide feedback to the community and other interested stakeholders as the design and implementation of the project evolves (See Issue 9).

Issue 9: Keeping stakeholders informed during project design

As the design and implementation of the pilot project evolves it will be necessary to:

- clearly advise stakeholders about what it going to occur and the procedures involved prior to ever planning activity or meeting;
- Provide feedback to the community and other interested stakeholders on the actual work and information gathered and analysed as it progresses and follow-up activities.

This needs to include:

- making it clear to the community how the information gathered is going to be used, (e.g. to help them make decisions)
- what it will contribute to (e.g. development of a management plan) and
- who will be responsible for managing the information.

The community should also be alerted to any risks or concerns that could delay or impact negatively on the development of the project.

Communication options can be one-way, where you are 'delivering' information to a stakeholder group, or two-way, providing opportunity for discussion. One-way methods may be appropriate in some situations or to reach certain stakeholders. Examples of these include:

- Written reports
- Visual materials (eg. posters)
- Oral presentations (eg. seminar)
- Mass media (eg. radio, newspaper, video)
- Websites

Two-way communication strategies are appropriate when you are trying to gain feedback from the stakeholders on findings, and to use the findings as a basis for project planning. Examples of two-way communication processes include:

- Group discussions/workshops
- One-on-one discussions
- Bulletin boards
- Remote communication facilities (eg telephone, videolink)
- Email

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Module 3: Learning about Natural Resource Management Problems and Stakeholders

Module aims

This module will help you understand:

- how to help stakeholders to identify resource management issues of concern to them.
- how to facilitate a stakeholder analysis in relation to a resource management issue.
- how to facilitate a participatory problem analysis with stakeholders to identify the root causes of resource management problems.

Note: Modules 3 and 4 are closely related. Although they are presented as different topics in this resource kit, a clear understanding of resource management issues and problems requires you to learn about their social context. Please take the time to look also at Module 4.

Topics Cases Issues Activities Checklists Figures

The following topics are covered in this module:

3.1 Identifying community concerns

3.2 Stakeholder analysis

3.3 Participatory problem analysis

Introduction

Gaining an understanding of resource management issues and stakeholders in the target area is an important starting point in developing a participatory NRM program is. These issues have social, economic and ecological dimensions, which need to be explored in an integrated way.

A lesson that has emerged from participatory projects is that the solutions to resource management problems often require the involvement of stakeholders at many different levels: for example by households, the lineage or clan, specific user groups, townships, provinces, national governments and even international agencies. These were represented as layers of an 'onion' in Figure 3 (see Module 2).

Using information from a range of different stakeholders and sources helps to build a rich picture of resource management problems and their causes, which prepares us to better target solutions. Modules 3 and 4 together provide you with methods to build such an understanding:

- Module 3 (this module) focuses on identifying key stakeholders and their interests, resource management issues of concern and their causes.
- Module 4 focuses on socio-economic assessment. The initial profile (outlined in Topic 4.2) would generally be undertaken before or during the activities discussed in this module.

Topic 3.1 Identifying Community Concerns

This topic outlines a 'brainstorming' activity, which facilitators can use in initial community discussions to help participants identify NRM issues of concern to them. Other ways of understanding community concerns include:

- Informal discussions with stakeholders.
- Observations (eg. some issues such as poor sanitation facilities or waste management systems can be quite visible)
- Background research in the initial community profile stage (see Topic 4.2).

The brainstorming activity below is useful to do before a stakeholder analysis (Topic 3.2) and Participatory Problem Analysis (Topic 3.3). The output of the brainstorm exercise is a list of issues; further discussion would be necessary to determine which of these issues are of greatest concern to stakeholders.

Activity: Facilitating a brainstorming session

Purpose:

Brainstorming is a free listing of ideas in which everybody's contribution is valued. Brainstorming can be used in many different ways, and basically involves generating a list of ideas relating to a problem or question. It can be used to generate a range of issues of concern to stakeholders. Later in the project process it may be used to identify potential solutions.

Participants:

To be used in workshops with stakeholders during the initial stages of problem identification, and can be used later in working out solutions.

Materials:

Blackboard, whiteboard or flip chart

Chalk or marker pens

Preparation:

Arrange the room so that everyone is facing the writing area.

Time:

Around 20 minutes

Steps:

1 Clarify and post the some ground rules for participant behaviour so that no one group or person dominates the session and so that we can ensure that the maximum number of ideas are generated. See Box 1 for some suggested 'ground rules' in the box below.

Brainstorming ground rules

- Anyone can put anything on the list that is relevant to him or her (even confusing and silly ideas).
- There should be no arguing about whether or not something should go on the list.
- There should be no discussion to flesh out ideas. Ideas should just be called out.

2 Post the group's task in the form of a question. Eg. "what resource management problems concern you when you think about the future of ….. (place)?"

3 Ask for volunteers to write on the board or flipchart. Ask them to record all the contributions clearly.

4 Start listing ideas one at a time. Remind people of the ground rules if they start to discuss or argue about ideas.

5 Continue until there are no more ideas. Sometimes it may seem that all the ideas have been raised, but it can be useful to wait until everybody has had a chance to contribute.

- One way to encourage final contributions is to let people know that there are only two more minutes towards the end of the allotted time.

6 The list of ideas generated can later be used to:

- Group ideas in clusters and name them [repeats activity above]
- Prioritise what is on the list

Source: (adapted from Braakman and Edwards, 2002)

Hints:

☺ Give the group time to think.

☺ Encourage turn taking. If the group needs time to think individually, give them a chance to write down some ideas before the brainstorm starts.

☹ Don't try to write and facilitate at the same time. Have one person facilitate and another write down the ideas at the same time.

☹ Don't show approval or disapproval of ideas as they come up ("good one" or "we have that one")

Topic 3.2 Stakeholder Analysis

For a definition of 'stakeholder' see the glossary and the discussion in Topic 2.1). Also recall the 'onion' diagram in Figure 3 (Topic 2.2), that showed us many levels of stakeholders and rules that may play a role in a resource management issue.

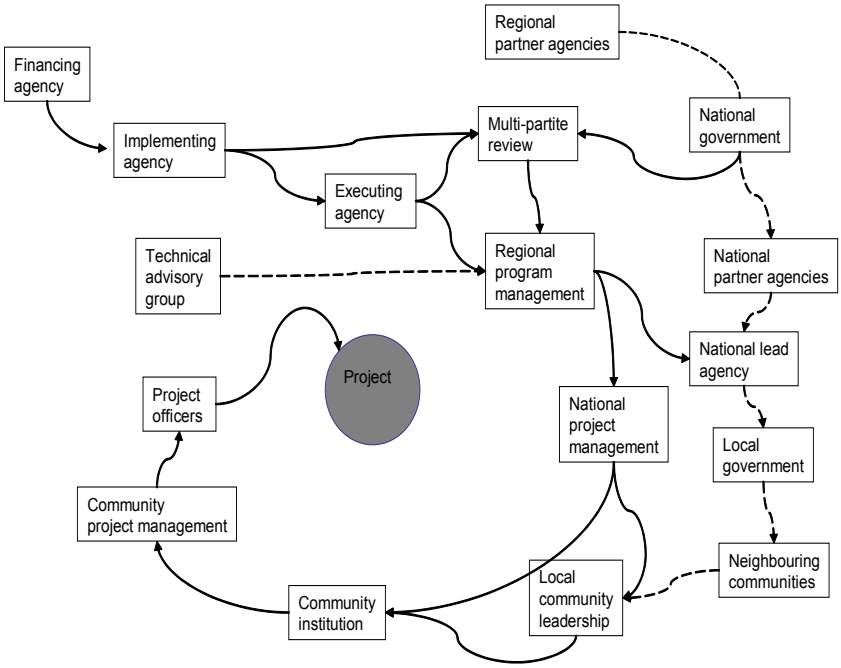
Stakeholders in NRM

Some examples of potential stakeholders in natural resource management programs include:

- individuals (e.g. owners of land/sea)
- families and households (e.g. long term residents)
- social groups (e.g. extended families and clans)
- local traditional authorities and leaders (e.g. village council of elders, a chief)
- religious and community-based organisations (e.g. industry groups such as fishing organisations, organisations of resource-users, neighbourhood associations, gender or age-based associations)
- local and/or international environmental non-government organisations
- political authorities (e.g. elected representatives at village or district levels)
- local government services (e.g. health, education, fisheries extension)
- relevant government ministries, departments or agencies such as marine resources, environment, works, health, education; environment; outer islands; internal affairs etc
- conservation/environment councils or committees
- businesses and commercial enterprises (local, national and international from local cooperatives to international corporations) (e.g. private sector interests such as the Chamber of Commerce, tourism operators and water utility companies)
- universities, colleges or training or research centres
- programme or project staff and environmental or resource management technical specialists or consultants
- regional organisations

The diagram below (Figure 5) illustrates the kinds of stakeholders often involved in internationally financed projects, and how they may have direct (solid arrows) or indirect roles (dashed arrows) in resource management.

Figure 5: Stakeholders in an internationally funded project



Source: IWP National Coordinators Meeting Materials, Apia, May 2002

Stakeholders are generally identified through a process of discussion, examining the various players in an issue or situation and their roles (see Activity below). Another approach is to consider the 'chain of custody' for goods and services (see Issue 10).

Issue 10: A chain of custody

The 'chain of custody' for a product refers to the location of a commodity at each stage of its development, from harvesting to processing, manufacture, sale and purchase/use. In a fisheries project, for example, people may be concerned about protecting stocks of crabs that are caught locally and sold. In this case, the chain of custody might include fishers who capture the crabs, local traders who buy them and wholesalers and retailers to distribute them (Lal and Holland, 2004)

Stakeholder analysis

Stakeholder analysis is a process of assessing which stakeholders are involved in a resource management issue and how. Stakeholder analysis can be used to find out different things about stakeholders in relation to an issue depending on your questions and needs in project planning, and where in the project cycle you do it (see Figure 6).

Stakeholder analysis can be conducted just by the project team. However, conducting stakeholder analysis in a participatory way enables a richer picture of stakeholders and their relationships (see Case 14). The activity presented here can be used in a participatory workshop to gain additional information on stakeholder groups, their interests and relationships.

Case 14: Using stakeholder analysis in Tonga

One facilitator comments on his experience with a participatory stakeholder analysis in a waste management project in Tonga (using the Venn diagram method in Annex 2):

'In stakeholder analysis, we found it useful for the participants to first understand what a stakeholder is, then followed with how each stakeholder's interest relates to the problem. At the end, most participants realised that they (participants) are at the very centre of the problem. They used to believe that the problems are mostly externally caused. The stakeholder analysis helped them to understand that they are one of the root causes and they should play a central role in carrying out solutions.

Source: Pers. Comm., Sione Faka'osi, IWP Tonga 17 November 2003

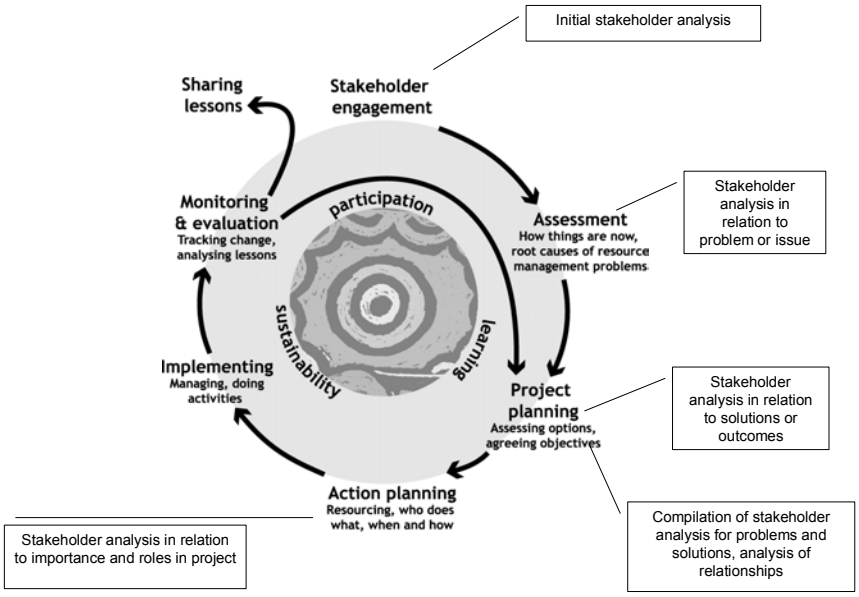
Stakeholder Analysis at different stages of the project cycle

Stakeholder analysis is undertaken at different stages in the the project cycle:

- Community engagement: project managers and other project staff need to consider who the stakeholders are at an early stage in the project cycle. However, they will need to revisit this question at different times and ask the question to different groups of people.
- Assessment: at this stage, project staff as well as stakeholders themselves can look at who the stakeholders are in relation to a problem or issue, and the nature of this relationship (eg. Their interests, contribution to the problem, impacts on them).
- Project Planning: at this stage, it is useful to look at how stakeholders relate to specific solutions or project options (eg. How specific options will impact on them, influence, their roles and their capacity to contribute).
- Project monitoring: mapping the relationships between stakeholders can help to plan partnerships and analyse risks during project planning. This is also a way of monitoring change during project implementation.

The ways in which stakeholder analysis can be used during the project cycle are shown in Figure 6 below.

Figure 6 Stakeholder analysis through the project cycle



Six stakeholder analysis activities are outlined here:

- Activity 1: identification of stakeholders
- Activity 2: Stakeholder analysis in relation to a problem or issue.
- Activity 3: Stakeholder analysis in relation to project outcomes or solutions.
- Activity 4: Compilation of stakeholder analysis in relation to problems and solutions (i.e. compilation of 1 and 2 above)
- Activity 5: Stakeholder analysis of importance and roles in a project.
- Activity 6: analysing relationships *between* stakeholders.

Remember, you do not have to do all of these kinds of stakeholder analysis at one time! Use them at different stages in the project. ☺

Each of these types of stakeholder analysis begins with the question: who are the stakeholders (Activity 1).

The activities use the case of a fisheries project in the imaginary place of Mombuka Bay (see Case 15) to provide examples of how each stakeholder analysis activity in this subsection works.

Case 15: Managing the marine resources of Mombuka Bay

There are 5,000 people living in Mombuka Bay area, spread out in two coastal villages Loli and Mali. The families of these villages have been fishing for generations. In the last two years most of the village men have started earning money by working for the fishing fleets that fish in Mombuka Bay and nearby reefs, and along the entire stretch of country's coast. The men are often away from home. The village women fish off the edge of the reefs and are dependent on the fish they catch for food and family nutrition.

In the last eight years the numbers of fishers have been increasing - through village population growth, increases in the number of fishing vessels, and most recently, increases in the number of men from town (about 50 kms away) visit on weekends for recreational fishing. Many people say that fish catches are declining.

The bay is also becoming a tourist attraction because of its reputation for a lovely reef and pristine natural resources. Over the last 5 years a guesthouse, Mombuka Lodge has been established on the bay. This has brought income into the area. The government is desperate to increase national revenue so is promoting tourism further. The lodge it is owned and managed by an expatriate who is keen to see the resources conserved.

Tourism is expected to increase.

The national government recognises that the patch and barrier reefs off Mombuka Bay have significant ecological value but that they are threatened by over fishing. The Mombuka Fisheries Agency is now working with the I Will Protect Programme (a GEF initiative) to prepare a management plan for fisheries in the Bay. The management plan will develop fisheries management rules, establish zones for use and put in place fisheries legislation.

(IWP Train-the-Trainer workshop materials 2003)

Activity 1: Who are the stakeholders?

Purpose:

To identify potential stakeholders in relation to a resource management problem or issue.

This is a starting point for the various forms of stakeholder analysis below.

Participants:

This activity can be used by a project manager on their own or together with other staff working for a project (the project team) and in a stakeholder workshop.

Materials:

Flip chart paper and marker pens.

Preparation:

Depending on the number of participants, the task can be undertaken in small groups.

Time:

Initial listing: 20-30 minutes.

Steps:

1. Ask the group to think about who the key stakeholders are in relation to a specific problem, issue or option.
2. They can use the following questions to help them in their thinking:
    - Who benefits from the situation?
    - Who is impacted on (positively or negatively) by the situation?
    - Who influences the situation?
    - Are there any other groups that may be involved? (Encourage participants to break down broad categories like: 'government' or 'community' into smaller identifiable actors and groups such as specific government departments, local committees or private organisations such as churches or schools. Also encourage them to think about the 'chain of custody' involved in particular resources.)

3. The outputs need to be recorded on a flipchart to be used for the stakeholder analysis below.

Case: Stakeholders in Mombuka Bay

Mombuka Lodge
Townie Fishers
Women fishers at Loli village
Women fishers at Mali village
Traditional Dory fishers at Mombuka Bay
Market traders
Mombuka Fisheries Division
Environmental Studies Institute
Mombuka Health Services
Global Environment Facility
Reef Conservation International
Mombuka Tourism office

Activity 2: Stakeholder analysis in relation to the problem or issue

Purpose:

To identify the interests of stakeholders in relation to a problem or issue, how they are affected by or influence the problem, and rank the extent to which they are impacted on or causing the problem.

Participants:

This activity can be used by a project manager on their own or together with other staff working for a project (the project team) and in a stakeholder workshop.

Materials:

Blackboard/whiteboard and chalk/marker pens, or flip chart and marker pens.

You will need the outputs of Activity 1 and a copy of the table provided with this activity.

Preparation:

Depending on the number of participants, the task can be undertaken in small groups of 5-6 people.

Time:

1-1 ½ hours

Steps:

Using the following stakeholder-problem matrix, work through these questions for each column:

1. Column 1: identify the stakeholder group (use the groups listed in stakeholder analysis activity 1).
2. Column 2: Describe how the stakeholder is affected by the problem or how they influence the problem.
3. Column 3: Rank the extent to which the stakeholders are affected by the problem. You can use the words: very low, low, moderate, high, very high.
4. Column 4: Some stakeholders may have an interest in addressing (solving) the resource problem while others may be stakeholders that contribute to the problem. Focus on the latter (those who may contribute to the problem) and describe in what ways these stakeholders may cause the problem (think about specific things they do that are contributing to the problem).
5. Column 5: Rank the extent to which the stakeholders contribute to the problem. You can use the words: very low, low, moderate, high, very high.

Activity 2 Worksheet

Stakeholder Group	In what ways are they affected by the problem?	The extent they are affected by problem	In what ways do they contribute to the problem?	The extent they contribute to the problem

Activity 2 Example: Stakeholder Analysis in relation to the Problem or Issue in Mombuka Bay

Stakeholder Group	In what ways are they affected by the problem?	The extent they are affected by problem	In what ways do they contribute to the problem?	The extent they contribute to the problem
Mombuka Lodge	Tourism business highly reliant on conservation of natural area No other location	High	Guests fish in reefs (small number)	Low
Townie Fishers	Come to fish on weekends – fishing for recreation not food or income.	Mod	Many urban fishers and each takes several eskies of fish back with them each time	High
Women fishers at Loli village	Fish off reef edge for family subsistence	Very High	Reef catch unknown (maybe low) but high number of families in settlement	Moderate
Women fishers at Mali village	Fish off reef edge for family subsistence	Very High	Reef catch unknown (maybe low) but low number of families in settlement	Low
Traditional Dory fishers at Mombuka Bay	Fish from Mombuka are required for sale at local markets Have many fishing sites available to them	Moderate	Reef catch unknown but thought to be high	High
Market traders	Buy fish from the Fishermen's Cooperative	Low	Buy from many sites not just Mombuka	Low
Mombuka Fisheries Division	They are responsible under the legislation for sustainable fisheries	Low	No information provided on management No surveys of reef	Mod
Environmental	Not affected directly but have interest in	Low	-	Very low

Studies Institute	studying reef systems			
Mombuka Health Services	Not affected directly but are concerned about families nutrition in Loli village and Mali village. Encouraging people to eat more natural food	Low	-	Very low
GEF	Fund govt reef and fisheries conservation programmes	Low	-	Very low
Reef Conservation Int'l	Have programme promoting conservation of tropical reefs in the region	Mod	-	Very low
Mombuka Tourism office	Encouraging tourism in the Mombuka Bay	Low	Encourage development of guesthouses	Low

Activity 3. Stakeholder analysis in relation to project outcomes or solutions

Purpose:

To:

- Identify the interests of stakeholders in relation to a potential solution or project outcomes.
- Identify how they may be affected by or influence the project outcomes or solutions.
- Rank the extent to which stakeholders are impacted by or influenced the project outcomes or solutions.

Participants:

This activity can be used by a project manager on their own or together with other staff working for a project (the project team) and in a stakeholder workshop.

Materials:

Blackboard/whiteboard and chalk/marker pens, or flip-chart and marker pens.

You will need the outputs of Activity 1 and a copy of the table provided with this activity.

Preparation:

Depending on the number of participants, the task can be undertaken in small groups of 5-6 people.

Time:

1-1 ½ hours

Steps:

Using the following stakeholder-solution matrix, work through these questions for each column:

1. Column 1: identify stakeholders (use the groups listed in the first exercise).
2. Column 2: Describe how the stakeholder is likely to be affected by the solution or project.
3. Column 3: Rank the extent to which the stakeholders are affected by the solution or project. You can use the words: very low, low, moderate, high, very high.
4. Column 4: Describe in what ways the stakeholders influence decisions about how the problem should be addressed.

5. Column 5: Rank the extent to which the stakeholders are likely to influence decisions about the solutions or project. You can use the words: very low, low, moderate, high, very high.

Activity 3 Worksheet

Stakeholder Group	In what ways will they likely be affected by project outcomes/ solutions?	The extent that they may be affected by the solution?	In what ways can they influence the decisions about how the problem should be addressed?	The extent that they may influence the decisions about how the problem should be addressed?

Activity 3: Example of Stakeholder Analysis in Relation to Project Outcomes or Solutions in Mombuka Bay

Stakeholder Group	In what ways will they likely be affected by project outcomes/ solutions?	The extent that they may be affected by the solution?	In what ways can they influence the decisions about how the problem should be addressed?	The extent that they may influence the decisions about how the problem should be addressed?
Mombuka Lodge	Management solutions may affect what guests can and can't do. This may affect how well the guests like the Lodge. Effectiveness of reef management will determine success of conservation goes and how well the Lodge attracts guests.	High	Government very supportive of tourism ventures and generating greater earnings	High
Townie Fishers	Management decisions may affect how much fish they catch on weekends and where they can fish	Moderate	Well-educated, good incomes and influence politicians Write letters to govt and in newspapers	High
Women fishers at Loli village	Management decisions may affect how much fish where they can fish and how much food they may have for their family	Very high	Pressure husbands to act on their behalf Low literacy and not organised – possibly through Dept of Health.	Low
Women fishers at Mali village	Management decisions may affect how much fish, where they can fish and how much food they may have for their family	Very high	Pressure husbands to act on their behalf Low literacy and not organised – possibly through Dept of Health.	Low

Traditional Dory fishers at Mombuka Bay	Management decisions may affect how much fish and where they can fish. They may be required to go elsewhere at a higher cost This can impact on earnings.	High	Fishermen's Cooperative is extremely well organised and powerful. Fish sales is a major source of export revenue	High
Market traders	Limits on Mombuka Bay unlikely to cause a decrease in fish supplies to market.	Low	Very strong lobby with government	Very High
Mombuka Fisheries Division	They will meet policy objectives in their 3 year plan. Solutions may require more enforcement staff and annual monitoring	High	No information provided on management No surveys of reef	Mod
Environmental Studies Institute	Not affected directly but have interested in measuring fisheries response to management	Low	Can lobby government based on views of need to conserve area	Mod
Mombuka Health Services	Not affected directly but are concerned about families nutrition in Loli village and Mali village. Encouraging people to eat more natural food.	Low		Very low
GEF	Fund govt reef and fisheries conservation programmes and would like to see success	Moderate	Offer funds to government to undertake conservation programmes	Very high
Reef Conservation International	Have programme promoting conservation of tropical reefs in the region and want to achieve more conservation (this will help them get continued funding).	Moderate	Offer funds to government for conservation activities	Very low
Mombuka Tourism office	Conservation success will bring more tourists to the Mombuka Bay	Moderate	Encourage development of guesthouses	Low

Activity 4. Compilation of Problem and Solutions Tables

Purpose:

To:

- Compare and analyse how stakeholders contribute to NRM problems and their potential solutions.

Participants:

This activity can be used by a project manager on their own or together with other staff working for a project (the project team) and in a stakeholder workshop.

Materials:

Blackboard/whiteboard and chalk/marker pens, or flip-chart and marker pens.

You will need the outputs of Activities 2 and 3 and a copy of the table provided with this activity.

Preparation:

Depending on the number of participants, the task can be undertaken in small groups of 5-6 people.

Time:

30-45 minutes

Steps:

1. Compile the outputs of the tables from Activity 2 and 3 into one table.
2. This provides an overall picture of how stakeholders relate to the issue and its management.

Activity 4 Worksheet

Stakeholders	The extent they are affected by problem	The extent they contribute to the problem	The extent that they may be affected by the solution	The extent that they may influence the solution

Activity 4 Example: Compilation of Stakeholder Ranking for Mombuka Bay

Stakeholders	The extent they are affected by problem	The extent they contribute to the problem	The extent that they may be affected by the solution	The extent that they may influence the solution
Mombuka Lodge	High	Low	High	High
Townie Fishers	Mod	High	Moderate	High
Women fishers at Loli village	Very high	Moderate	Very high	Low
Women fishers at Mali village	Very High	Low	Very high	Low
Traditional Dory fishers at Mombuka Bay	Moderate	High	High	High
Market traders	Low	Low	Low	Very High
Mombuka Fisheries Division	Low	Mod	High	Mod
Environmental Studies Institute	Low	Very low	Low	Mod
Mombuka Health Services	Low	Very low	Low	Very low
Global Environment Facility	Low	Very low	Moderate	Very high
Reef Conservation Int'l	Mod	Very low	Moderate	Very low
Mombuka Tourism office	Low	Low	Moderate	Low

Activity 5. Analysing the importance and roles of stakeholders in relation to a project

Purpose:

To analyse the roles that stakeholders may play in a project and their importance to outcomes. This may be used to analyse potential risks to the project. For example, a stakeholder who is crucial to project outcomes will need to be engaged in the project process. The table can also be used to clarify roles and responsibilities. It can also be used as a basis for identifying training and capacity issues amongst stakeholders in implementing a project.

Participants:

This activity can be used by a project manager on their own or together with other staff working for a project (the project team) and/or by stakeholders in a workshop/meeting.

Materials:

Blackboard/whiteboard and chalk/marker pens, or flip-chart and marker pens.

You will need the outputs of Activity 1 and the table provided with this activity.

Preparation:

Depending on the number of participants, the task can be undertaken in small groups of 5-6 people.

Time:

1 -1½ hours

Steps:

1. Identify stakeholders (stakeholder analysis activity 1).
2. Consider the results from Stakeholder Analysis Activities 2 and 3 and decide the relative importance of this group to the project outcomes.
3. Discuss the likely roles of these stakeholders and consider the strengths and weaknesses of each group in implementation of the project.

Variation: Categorise the stakeholders into primary, secondary and third level stakeholders (primary, secondary and third level stakeholders are discussed further in Topic 2.2). Briefly, primary stakeholders are those with a direct interest in the issue (eg. resource users), secondary stakeholders have an indirect interest in an issue (eg. buyers of the resource), third level stakeholders are key organisations with an interest in the issue (eg. a government agency).

Activity 5 Worksheet

	Stakeholder importance for project success	Role in Project	Strengths in carrying out implementation	Weaknesses in implementation
Primary Stakeholders				
Secondary Stakeholders				
Third Level Stakeholders				

Example of Activity 5: Analysis of Stakeholder Importance and Roles in Mombuka Bay

Primary Stakeholders	Stakeholder importance for project success	Role in Project	Strengths in carrying out implementation	Weaknesses in implementation
Mombuka Lodge	High	Partner	Provides meeting venue, transportation for stakeholders	Little time during the dry season (high tourist time)
Townie Fishers	High	Not represented by an organisation – Consult		
Women fishers at Loli village	High	Partner	Organised well in Women's Council Supportive of project	Little time available
Women fishers at Mali village	High	Partner	Organised well in Women's Council Supportive of project	Little time available
Traditional Dory fishers at Mombuka Bay	High	Consult		Widely distributed – poor communication
Secondary Stakeholders				
Market traders	High	Consult		
Mombuka Fisheries Division	Moderate	Partner/Owner	Office provided	Little skills in working with local communities or NGO
Third Level Stakeholders				
GEF	Very High	Owner		Not flexible on

				timing of deadlines
Reef Conservation Int'l	Low	Consult	Good knowledge and information on lessons from other projects	
Mombuka Tourism office	Low	Consult	Interested in publicity of conservation benefits	Little time to attend meetings
Environmental Studies Institute	High	Partner	Extensive materials Available research students with funds	Too academic in research methods
Mombuka Health Services	Moderate	Consult Partner?	Part of village women's network	

Activity 6: Mapping stakeholder relationships

Purpose:

To analyse the relationships between stakeholders in relation to a resource management issue or solution/project. This may be used to analyse potential collaborations, as well as risks to the project. For example, shaky relationships between two key stakeholders may require mediation for the project outcomes to be achieved. This picture can also be used to monitor change in relationships during the life of a project.

Participants:

This activity can be used by a project manager on their own or together with other staff working for a project (the project team) and in a stakeholder workshop.

Materials:

Flip-chart and marker pens.

You will need the outputs of Activity 1.

Preparation:

Depending on the number of participants, the task can be undertaken in small groups of 5-6 people.

Time:

1 -1½ hours

Steps:

1. Using the stakeholders identified in Activity 1, ask participants to draw a circle on a chart to represent each stakeholder or stakeholder group. Write the name of the stakeholder in the middle of the circle. (See the Example 1 for Activity 6 below).

Variation: a different sized circle may be used to indicate stakeholder influence or interest in the project. Make sure participants clarify which of these is shown by size before they start.

2. Invite participants to discuss the relationship between each of the stakeholders they have drawn.

   Is the relationship positive/cooperative or negative/conflicting?

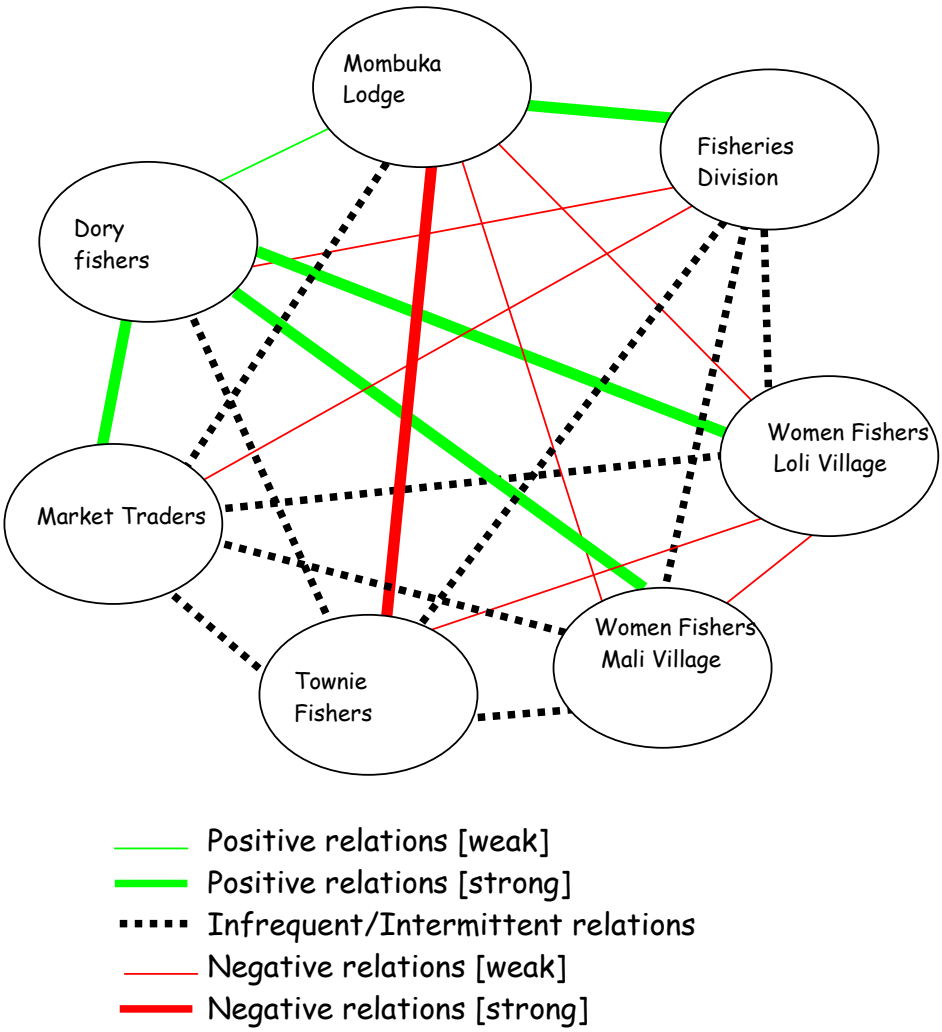
3. Invite participants to connect each stakeholder circle to the others, where relevant, by a line of varying width. The width of the line can show the strength of conflict or cooperation. Lines should be one of two colours: One colour (eg. Red) can indicate a conflicting or negative relationship while the other colour (eg. Green) can indicate a cooperative or positive relationship. There may also be stakeholders

who participants feel are not currently related to any other stakeholders, which will not be joined by any lines.

Variation: the chart information can be translated to a matrix showing relationships between stakeholders. See Example 2 for Activity 6 below

4. At the end, ask each group to post their map.
5. Discussion questions:
   - What are the similarities/differences in the results of the different groups?
   - What does the exercise show about stakeholder relationships (eg. Try to bring out any 'hidden' conflict.)
   - How can you use this information? (e.g. if there is conflict between stakeholders, does this need to be addressed?).

Activity 6 Example 1: Diagram of Stakeholder Relationships at Mombuka Bay



Activity 6 Example 2: Matrix of Stakeholder Relationships at Mombuka Bay

Stakeholders	Mombuka Lodge	Fisheries	W. Fishers Loli	W. Fishers Mali	Townie Fishers	Market Traders	Dory Fishers
Mombuka Lodge							
Fisheries Div	+++						
W. Fishers Loli	-	I					
W. Fishers Mali	-	I	+++				
Townie Fishers	---	I	-	-			
Market Traders	I	--	I	I	I		
Dory Fishers	+	--	++	++	I	+++	

Legend:

- negative relations (weak)
--- negative relations (strong)
+ positive relations (weak)
+++ positive relations (strong)
I infrequent relationship

Topic 3.3 Participatory Problem Analysis

Once resource management issues and stakeholders have been identified (Topics 3.1 and 3.2), you need to work with stakeholders to identify the symptoms and causes of the major problems.

Participatory Problem Analysis (or PPA) is a visual exercise that helps stakeholders analyse the 'root causes' (underlying sources) of problems. The activity has also been called 'root cause analysis' for this reason. Participatory problem analysis helps stakeholders to break a large NRM issue or problem into smaller interrelated problems. The method is best used during the early assessment stage of the project cycle, to gain a clear understanding of the resource management problem. The PPA provides a good basis for identifying solutions and developing project objectives and activities in the form of a project map (discussed in Module 5).

Why do Participatory Problem Analysis?

Gaining a clear picture of the underlying problems for an NRM issue gives the project a better chance to resolve the issue. In the past, many projects have focused on the wrong set of problems or solutions because they were developed on assumptions that did not hold true in a particular situation or place, or have only picked up on one part of the problem. The results of this problem can be seen in Case 16 below. A more thorough understanding of the root causes allows the project to pick up various aspects and issues in project activities. .

Case 16: Will improving community livelihoods decrease resource degradation?

In the 1990s, many resource management programs were based on the assumption that livelihood improvements tied to conservation would improve NRM outcomes. This turned out to be only part of the solution required.

An evaluation of the South Pacific Biodiversity Conservation Program found that programs to improve the sustainability of community livelihoods often needed to be supplemented by other actions, such as appropriate economic policy and regulatory frameworks at the government level. Examples of this kind of support may include: recognition of community level resource use rules by government, legislation to control the export of certain resources, enforcement of legislation, education and awareness programs. A similar lesson was learned in conservation and enterprise programs in the Asia Pacific supported by the Biodiversity Conservation Network.

So, an assumption that activities to improve community livelihoods would automatically encourage communities to refrain from overharvesting activities may be partially true. Yet a more detailed understanding of the issues would ensure that other linkages could be addressed, such as enforcement, education or coordination of activities at the national level. These other issues could be identified earlier in a PPA.

Source: (Hunnam, 2002, Salafsky et al., 1999)

Involving stakeholders in the problem analysis process has many benefits:

- They contribute knowledge to develop a rich picture of the nature of the problem and its sources, which can lead to a better project design.
- The process of creating a 'tree' – as you will see in the following activity – enables stakeholders to see the linkages between problems at a specific site and the practices and attitudes of various stakeholders, issues of awareness and education, village level management, and government policies and programs (see Case 17 from Niue).

Case 17: Feedback on using PPA in Niue

Participants in PPA workshops in Niue commented that it helped them to see other issues, points of views and different concerns that they had not considered before. Many of them felt that it showed them shared problems between villages, which they had not been aware of before. For example, Villagers on the western side of the island were surprised to learn that eastern villages, like them, were also concerned about depletion of marine resources. They found that the PPA activity encouraged participants and created enthusiasm for project activities.

Some cautions: Facilitators needed to clarify that the project may not be able to work in all the areas or on all the issues identified. Also, the assumptions about causes raised in the PPA may need to be investigated more thoroughly.

Source: Niue IWP Programme, 2003. Participatory Situation Analysis: summary report of village consultations in Niue, IWP, Niue.

The output of a PPA is a diagram that is also called a 'problem tree'. This can be used in many ways:

- Initially it can help us to identify assumed links and causes of the problem. It can thereby help us to identify any additional information we may need in order to validate or assess those causes. (See Topic 4.3 on baseline information collection, and Issue 11 on the importance of checking assumptions.)
- It can help us to later provide a framework to identify potential solutions to the causes of the problem. In other words, it can assist us to build a 'Solutions Tree' (See Topic 5.1), which can be used to create logical 'project maps' (see Topic 6.1).
- Develop monitoring plans for pilot project activities and help capture important learnings.

Issue 11: Remember to check assumptions!

It is worth reflecting here on the comment of a community participant in a PPA activity in Niue:

"There are absolutely lots of 'assumptions' on the possible causes of problems. At what stage of this project will we find out whether they are true or not?" (Niue IWP Participatory Situation Analysis Report 2003).

Doing a PPA does not mean we relax about probing further to understand the issues. Stakeholders may need help to question and interrogate their assumptions, just as we as project managers and facilitators need to constantly question our own beliefs and assumptions about a problem and its causes. This kind of questioning stance can lead to a richer and more comprehensive picture as a basis for project planning. The principle of *triangulation*, or gathering information from a range of sources, is also important. Social and economic baseline assessments, involving more detailed research, can also help verify and quantify causes and relationships.

Activity: Participatory Problem Analysis (PPA)

Purpose:
To help stakeholders examine the origins and underlying causes of natural resource issues or problems. To do this, you will invite stakeholders to illustrate the causes of the environment problem as a 'tree' with the roots of the tree representing the root causes of the problem. The further down the roots of the tree extend, the more fundamental the cause of the problem.

Participants:

This activity is used in a stakeholder workshop.

Materials:

Flip-chart paper

Post-it notes

Coloured marker pens.

Preparation:

Organise the work space to enable groups of up to 5-6 to work on the task at a time.

Time:

1 ½ to 2 hours

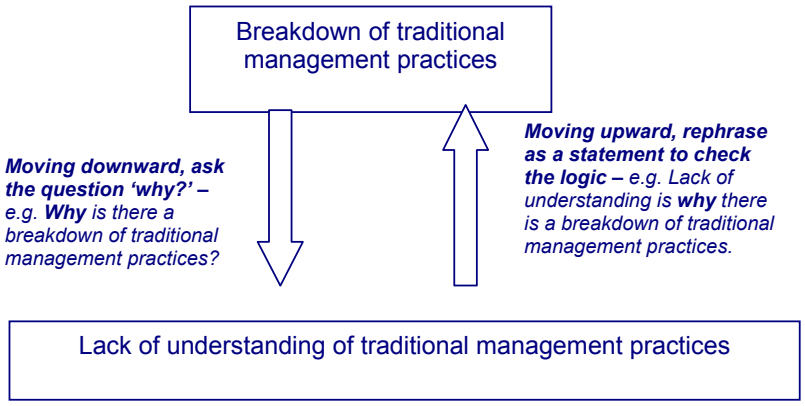
Steps:

Divide participants into groups. In each group:

1. Identify the resource degradation issue that you have identified as having a high priority.
2. Next, ask 'why' the problem has occurred, and identify the immediate causes of the problem. Think broadly in terms of social, political, economic and environmental reasons.
3. Phrase these causes as 'negative statements' about what people are doing. For example, if a cause of overfishing is that 'people do not realise how few fish there are', the negative statement might be written as 'lack of information'. Write these negative statements on a post-it note. Stick the post it note below the cause to which it relates below the main issue heading on the flip chart.
4. Next, working downwards, keep asking the question "Why does this problem occur?" for other of the immediate causes identified. You should discuss each and write each on a post-it. Then place the post it notes on the line below the causes to which they relate.

Hints:
Make sure you phrase the initial problem as a resource degradation issue.
List immediate causes at the outset then work your way down.
State/word each contributing cause as a problem (negatively).
Focus on identifying problems that are within your control (eg. You may leave out weather or practices that no longer happen)
Do a 'reverse logic' check from time to time to see you are on track.
Participants' ideas should not be excluded because they may not seem correct or true. The problem tree should capture everyone's perceptions of the problems. ☺

5. It is very important that each reason or cause is stated as a problem or change, and worded as a negative state.
6. These steps are repeated until it is not possible to break the problem down any further. At this point, you have identified potential root causes of the problem.
7. It is important not to draw links across the lines of post-its leading to a problem. If the same cause underlines several streams and write it separately for each. For example, if lack of information is a cause of overfishing and of problems with enforcing the fishing regulations, then this cause will appear twice in the diagram.
8. From time to time it will be constructive to check that the logic of your problem tree continues to apply. You can do this by reading the problem tree from the roots upwards – a 'reverse logic check' (the figure below). For example, a problem might involve the 'Breakdown of traditional management practices' and the cause of that problem ('Why?') might be identified as a 'Lack of understanding of traditional management practices'. To do a reverse check on these factors to see if the relationship is logical would involve checking that a 'Lack of understanding' apparently explains that a breakdown of traditional management practices' occurs.

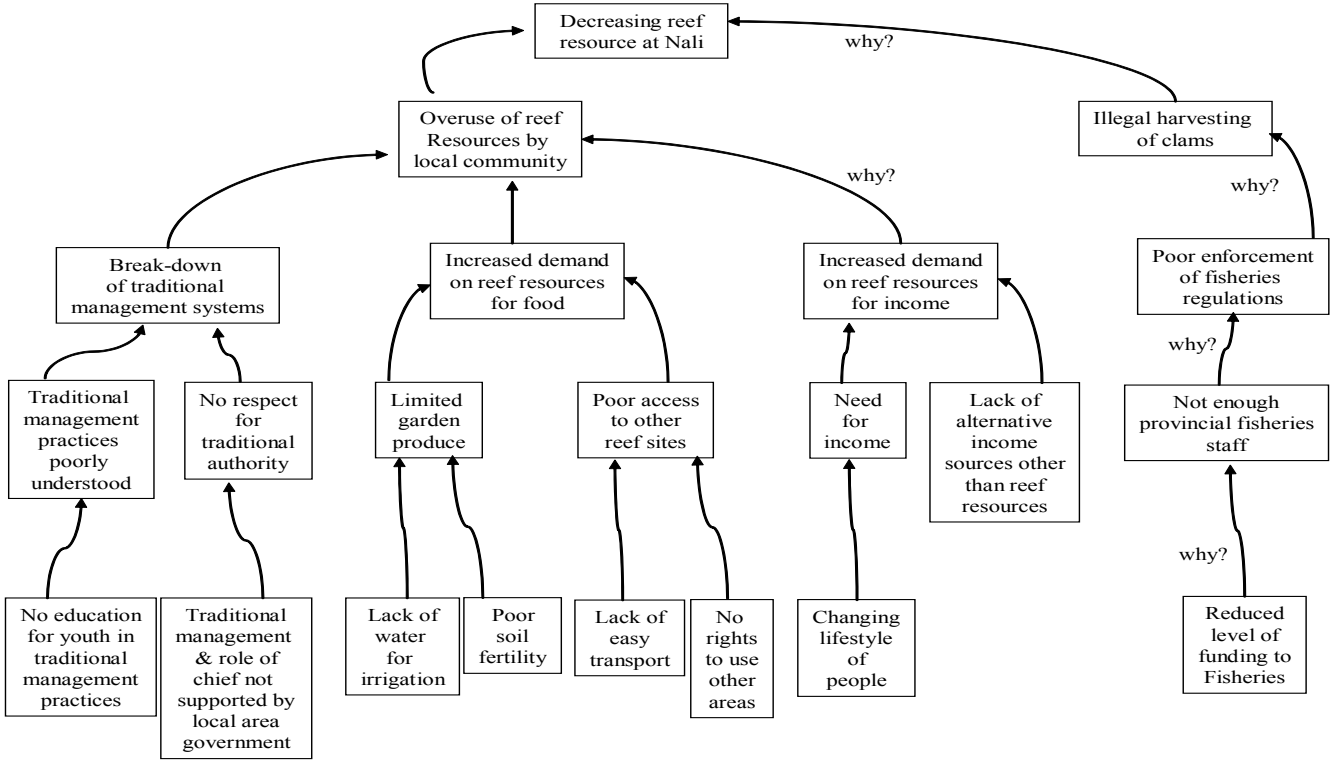


9. Move the post-it notes around if necessary, until you are confident about the logic of (relationship between) the causes and the problems.
10. Finally, you should connect the post-its with arrows to show the linkages between causes and effects. If arrows are inserted then they should ensure that they are heading upwards in the direction of the larger initial problem they are trying to break down. Do a final check on your logic by repeating the process of asking "Why?" down through the levels of causes, as outlined above.

Source: (adapted from Worah et al., 1999)

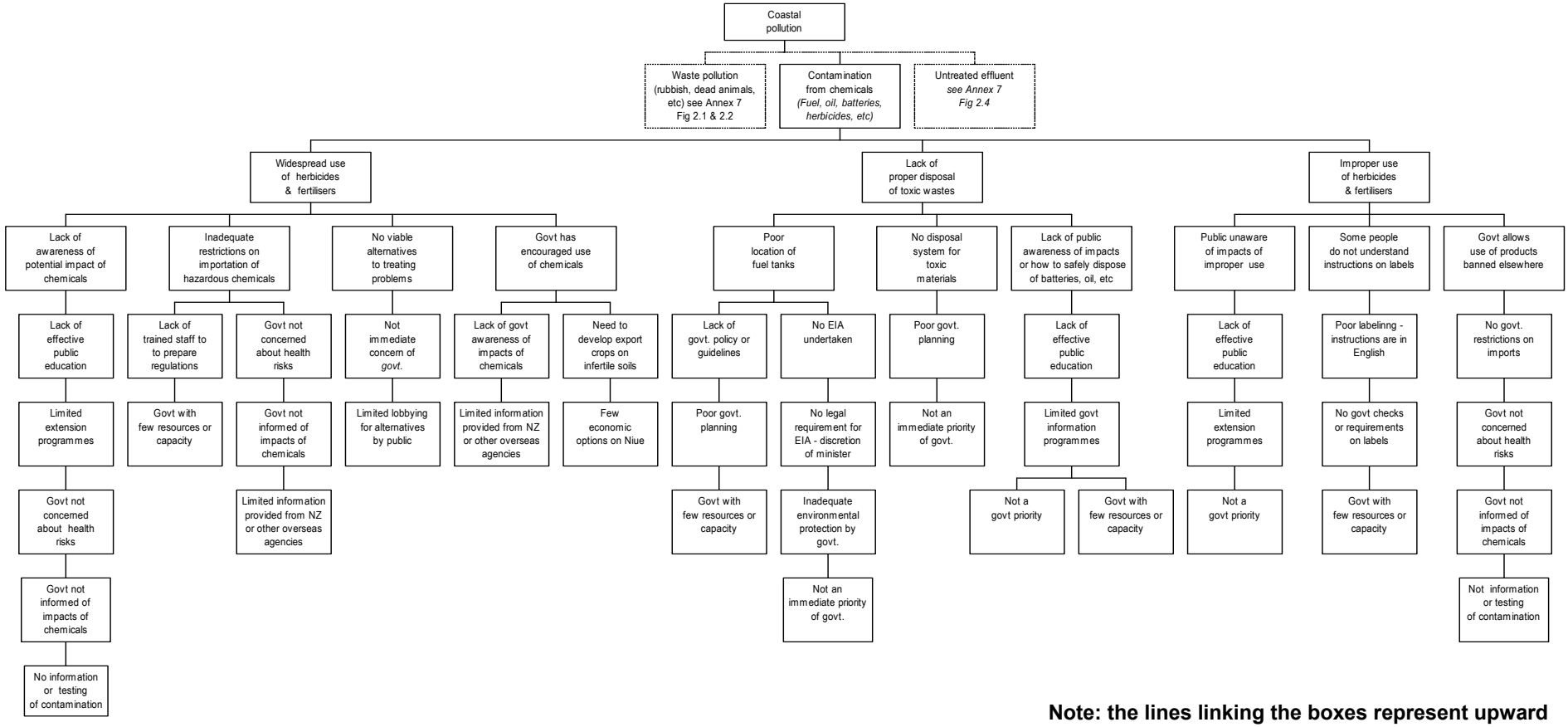
Participants in a training workshop learn how to do a participatory problem analysis, Niue, 2002

Example 1: Participatory Problem Analysis from Nali Village, Solomon Islands



Source: Niue Facilitator Training Workshop Materials, 2003

Example 2: Participatory Problem Analysis on contamination of water by chemicals in Niue

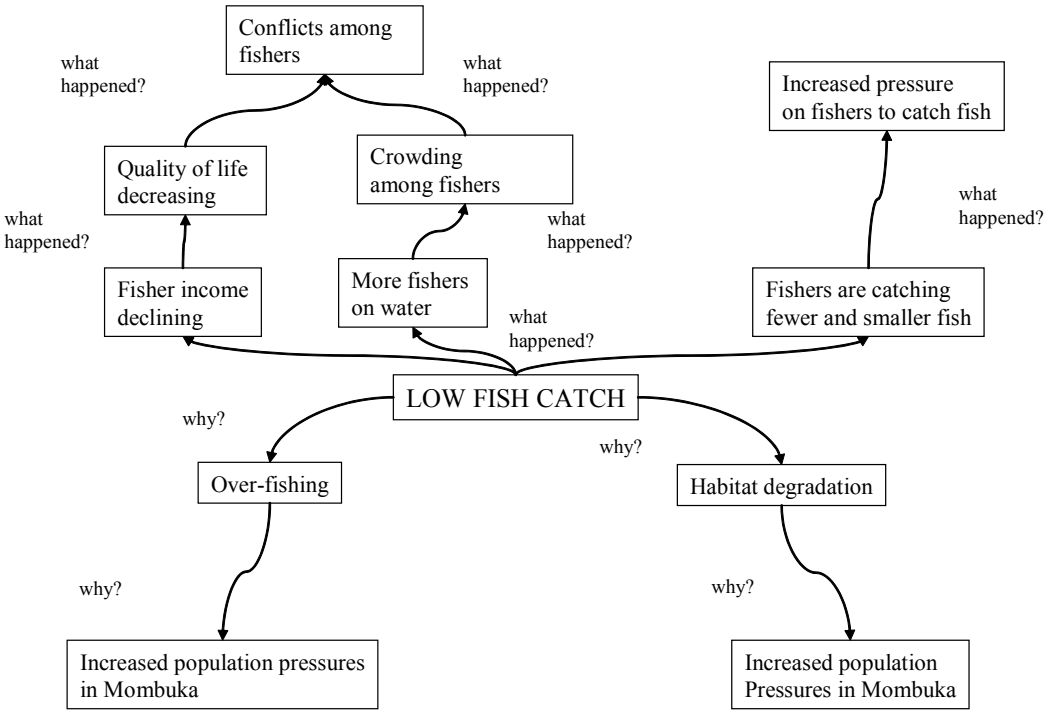


Note: the lines linking the boxes represent upward arrows

Variation on PPA Activity: Problem and Impacts Tree

This method can be used to analyse the impacts or consequences of the resource management issue in addition to the root causes. This may be useful in helping stakeholders think through the consequences of not taking action, and how these relate to different stakeholders

1. After identifying the root causes in the participatory problem analysis, work upwards from the problem to examine impacts. Ask the question: "what happens if…[insert problem here]?"
2. Following the same procedure as for the PPA, develop a tree of impacts of a key problem.



Source: (Bunce and Pomeroy, 2000)

References for Module 3

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Module 4: Learning About the Socioeconomic Context of NRM Issues through Social Assessment

Module aims

This module will help you to undertake socio-economic assessment, a broad term that involves finding out about the socio-economic context of NRM problems. In addition, it will help you:

- Understand the difference between participatory approach and conventional extractive approaches to information collection.
- Understand a range of potential methods for finding out about socio-economic conditions and how to these relate to questions and information needs.
- Understand some basic principles for analysing or making sense of the information you collect.
- Relate the information collected back to their guiding questions and be aware of options to communicate your findings.

Note: Modules 3 and 4 are closely related. Although they are presented as different topics in this resource kit, a clear understanding of resource management issues and problems requires you to learn about their social context. The activities in Module 3 and 4 both relate to the 'assessment' stage of the project cycle and can go on at the same time. Please take the time to also look at Module 3.

Topics

4.1 Introduction to socio-economic assessment

4.2 Preparing an initial socio-economic profile

4.3 Socio-economic baseline assessments

4.4 Methods for socio-economic assessment

4.5 Managing the information

4.6 Making sense of the information

Topic 4.1 Introduction to socio-economic assessment

What is it?

An important starting point in developing a participatory NRM program is an initial understanding of resource management issues in the target area, and the social, economic and ecological dimensions of those issues. We focus here on socio-economic assessment, a process of learning about the social, cultural, economic and political conditions of individuals, groups, communities and organisations (Bunce et al., 2000).

Resource use problems arise as a result of human choices. Social scientists consider that people make the resource use choices that they do because they believe that these choices will make them best off financially, culturally or otherwise. Therefore economic and social information about peoples' motivations and values is critical to understand:

- why people use resources the way they do;
- why therefore resource management problems happen; and
- how we might address these problems.

By determining what motivates people to make the decisions, we are better able to develop targeted solutions for resource management problems, and tap into these motivations to encourage changes in their behaviour.

A lesson emerging from participatory projects is that the solutions to resource management problems often require the involvement of stakeholders at many different levels: for example by households, the lineage or clan, specific user groups, townships, provinces, national governments and even international agencies. These were represented as layers of an 'onion' in Figure 4 (see Module 2).

While we focus here on socio-economic information, ecological information is also essential to understand the status of resources and current trends. Later, during monitoring, such information also provides feedback on the effectiveness of resource management strategies. Such information may be scientific or technical, or it may draw on the knowledge, experience and observations of local stakeholders.

Unless we understand the relevant social, economic and ecological factors causing the problem, the actions implemented in a project may be ineffective (see Case 18).

Case 18: Understanding the social, economic and ecological dimensions of an issue

A program in the Arnavon Islands (Solomon Islands) aimed to stop the decline in the number of turtles coming home to nest each year. The decline was related to many factors:

Villagers had traditionally collected turtle and turtle eggs from the area for use at home, for feasts and marketing.

When nesting, the turtle were an easy target for harvest. However, turtles harvested at this time were breeding females, thus escalating the decline in turtle numbers.

An attractive international market in turtle shell enticed fishermen to harvest more turtle than they needed just for their food.

National and provincial laws banned the sale of turtle meat and products, but the laws were not enforced and villagers were often not aware of the laws.

The local, provincial, national and international levels of the issue had to be considered when designing a marine conservation project. Ecological information was important to quantify the scale of turtle decline and the consequences of current harvesting practices. Social and economic factors helped to understand why harvest was traditionally important to the communities, as well as why harvesting pressures had increased in recent years

Source: (Mahanty, 1995).

Recent reviews of community based programs in the Pacific have shown that many programs work with a very limited understanding of these social factors, leading to ineffective and less practical solutions to resource management problems (refer Case 19 below). Examples of some potentially important social factors to consider may include:

- stakeholder characteristics including demography (population size, age and sex distribution, birth rates, and so on)
- ethnicity (cultural background)
- religious background,
- economy and livelihoods;
- social structure and organisation.
- resource use patterns, user rights/access and resource ownership.
- gender issues such as roles of men and women in resource use; rights of men and women in the household/community.
- community organisations and resource governance systems.
- traditional knowledge.
- stakeholder perceptions in regard to natural resources including values and beliefs.
- community commitment to the project and constraints to community participation in the initiative such as existing conflicts.

Case 19: The perils of ignoring the social and economic context

In PNG, an integrated conservation and development program selected its project site based mainly on biological criteria. The project managers faced many difficulties in engaging the landowners to work towards the project aims. After two years of conflict and difficult negotiations between project staff and landowners, the project finally withdrew from the area.

One of the important lessons learned was that a more detailed understanding of the 'social feasibility' of the site was needed at the outset. A similar point was made in a review of the South Pacific Biodiversity Conservation Program, which pointed out that participation by stakeholders could have been made stronger by studying the social and cultural factors relevant to the problems being addressed, and addressing these in project design.

Learning from this experience, a later integrated conservation and development project in PNG required the collection of social and economic data as an integral part of the development of a project in the Bismark-Ramu area. Projects such as IWP are also building this requirement into their project guidelines.

Sources: (Baines et al., 2002, McCallum and Sekhran, 1997, Van Helden, 1998).

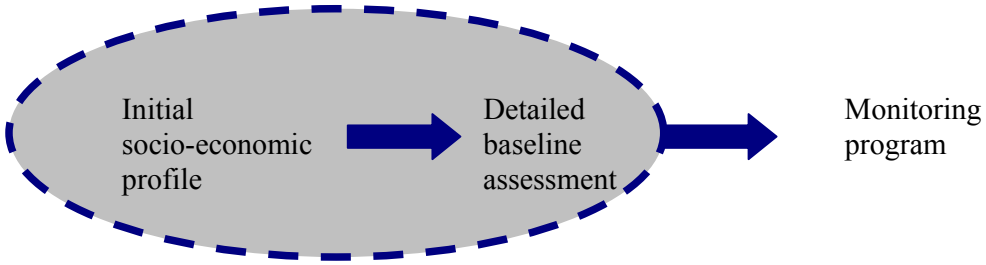
The socio-economic context of an NRM initiative should therefore be understood through solid and systematic field investigations, consultation and participation by key stakeholders. Such an approach is now seen as a basic element in 'best practice' project design and implementation.

Different levels of detail at different times

Information needs on the socio-economic context become more detailed over the project cycle. Initially, during stakeholder engagement, it is useful to carry out an initial assessment of resource issues in their socio-economic context. **This should occur before or during the activities outlined in Module 3.** As the project design progresses, more detailed baseline studies can be undertaken to examine in depth the relevant social and economic issues around a resource management issue.

At both stages the aim is to gather information on the socio-economic context to build a better understanding for project planning. The difference is in the level of detail in information collection and analysis. This initial profile can feed into the baseline assessment, and also be used to plan data collection for the baseline assessment. The baseline assessment then forms the basis for a monitoring program (see Figure 7).

Figure 7: Socio-economic assessment



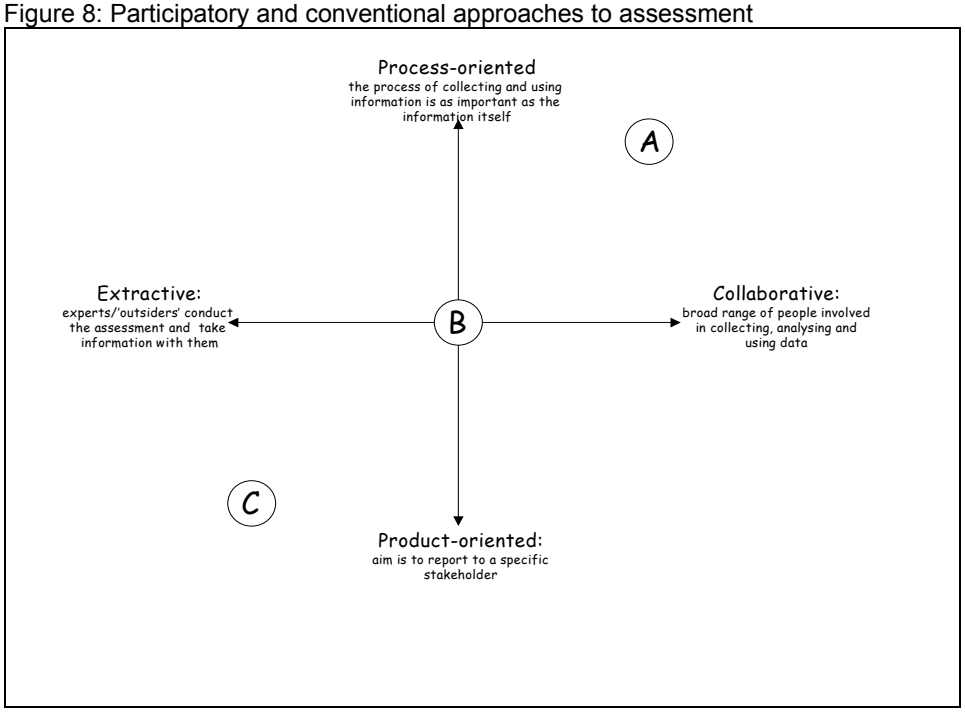
Socio-economic assessment

Participatory and Conventional methods

Socio-economic assessment can involve a mix of methods that involve stakeholders in gathering and analysing information (participatory methods), as well as conventional methods that often require help from technical resource people. Our focus in this kit is on participatory methods for information collection, analysis and planning. The process of participatory data collection and analysis then becomes a process of capacity building for stakeholders.

The difference between a conventional data collection approach and a participatory approach to information collection and analysis is shown in Figure 8 below. Approaches A and B (and the points in between) are collaborative and have an emphasis on the process of learning through engagement in the research, while C is conventional research, emphasising the final product (a report or research findings) rather than the learning process.

Figure 8: Participatory and conventional approaches to assessment



Source: (adapted from Bunce et al., 2000)

Recently, conventional approaches to information collection and analysis have been criticised for their 'expert driven' focus, because this can reduce local ownership of the findings, the potential for building local capacity, and continue the reliance on experts to conduct research. In addition, conventional approaches have tended to favour 'scientific' knowledge and numerical analysis over local knowledge and experience.

By comparison, participatory research can provide greater opportunity to integrate local values and knowledge, with its emphasis on local involvement, local knowledge, perspectives and solutions.

However, neither approach is inherently 'good' or 'evil'. Conventional research methods will still have an important contribution to make in specific areas, and research that is called 'participatory' can be poorly undertaken in terms of checking assumptions and verifying information. A participatory approach does not preclude more detailed or technical information on specific issues and topics, or advice from technical resource people. A combination of methods and information sources is likely to provide the best understanding of current conditions (the baseline).

It is important to note here that collaboration on assessment goes beyond participatory data collection to the deeper sharing of perspectives and knowledge between stakeholders, and collaboration right through the design

and implementation of what can broadly be called a 'learning system' (Keen and Mahanty, forthcoming).

Participatory methods and communities

In working with communities to gather and analyse information, it is important not to raise expectations about the outcomes of research (see Issue 12).

Issue 12: Raising expectations

Gathering information and doing workshops in communities can raise expectations that a project is going to address many of the problems identified. For example, a process to 'brainstorm' community issues may raise the expectation that all of the problems raised will be addressed by a project.

In doing participatory research it is very important that you are honest and clear with stakeholders about how the information will be used and what actions may or may not flow from the exercise.

Failure to do this can lead to a loss of trust and alienate communities.

Some projects develop an engagement 'protocol' to outline how staff will work with communities, including on data collection. It is also important to agree with stakeholders how the information collected will be managed and used. For example, the Locally Managed Marine Area Network in Fiji developed an agreement between its members and biodiversity researchers to ensure equitable sharing of any commercial benefits from the research, sharing of information and research findings, and equitable community engagement in the research (Source: LMMA Model Agreement for Overseas Biodiversity Researchers with FLMMA Members).

Topic 4.2 Preparing an initial socio-economic profile

Preparing an initial community profile at a village or site-specific level involves the collection of specific information on local level stakeholders. **This is best done before or during the activities outlined in Module 3.** Basic background information on community conditions helps with planning consultation processes and anticipating the kinds of issues and problems likely to be discussed. Some information can also be collected during initial consultations in the community (for example on NRM issues of concern to the community).

A literature review is a good starting point for the profile, which basically involves reading everything all literature that you can find related to the issue and the place you are concerned with. Some useful sources of published and unpublished information include:

- Reports on or about the community. These can help you gain background on the communities involved in the resource management issues and their conditions, and are important source documents for socio-economic baseline assessments (see Topic 4.3). Such reports are often prepared by government, local organisations, or researchers. Search for these in university and government libraries, government offices, and with NGOs.
- Journal articles on the social, economic or ecological context of the resource issue. These can help to give you technical background on the issue as well as background on the national or international context. Look for these in university libraries and ask researchers or technical people in the field for suggestions on which papers to read. Another way of finding relevant articles is to follow up articles in the reference lists of reports.
- Government Census and other statistical data. This gives you information on things like population, age distribution, livelihoods and income, health and education, and is often used in socio-economic baseline assessments. Agencies may also keep statistics on trade related to the resources you are dealing with (for example forests, marine products), which can give you background on export volumes, markets and significance to the national economy [link to Section 4.2]. Search for these at your Government agencies dealing with national statistics, and line agencies dealing with sectors like forestry, agriculture and marine resources.
- Previous studies, project documents and reports on related issues. These give you background on issues and lessons learned from previous programs. Studies of capacity and education by aid agencies and NGOs can give you information on where training and development needs may lie, and issues in meeting those needs.

- Reports by line agencies, for example agencies responsible for Fisheries, Environment, Health Departments, Forestry, Commerce or Tourism. These may give you background on the issue and information on relevant rules and regulations.
- Masters or PhD theses about the area or issue you are concerned with. Search for these in university libraries, and through your contacts in the research community.
- Provincial or National Development plans
- Market or product analysis. These may have been undertaken by government agencies (eg. forestry, fisheries, agriculture), consultants, aid agencies, and development banks.

To help you focus and make the best use of your limited time, take note of the hints below.

Hints:

Keep clarifying your questions before talking to informants and reading through documents. This will help you to focus on the information you need.

Afterwards, think about:

- What the person or document added to your understanding of the issue or problem.
- Whether you have any new questions now.

It is useful to keep a record of a few key points you learned from each document or person.

Some useful places to search for information include the internet, local public library, local university or college libraries, research libraries in local government departments, and research libraries in international agencies located in your area.

When visiting government ministries it is useful to make contact with staff and project officers in your area of interest both as an opportunity to exchange information and to build a network of potential partners in your project.

The Tongan case below (Case 20) shows one way of approaching the initial information collection stage.

Case 20: Identifying a focal area for a national project in Tonga

The manager of a project in Tonga had the preliminary task of identifying a priority environmental focal area for a project to address through a series of national and local level actions. This would be the starting point for consultations with local stakeholders and gathering more detailed information.

To start with, he read the some key national papers on environmental concerns: Tonga's Action Strategy for Managing the Environment (NEMS); the 1997 Tonga Submission to International Waters Program; and Tonga National Assessment Report for the World Summit on Sustainable Development.

He then spoke to members of Tonga's National Environment Committee which is a committee comprising national experts and other stakeholders to consolidate and confirm information presented in the literature review. A preliminary stakeholder analysis helped him work out which organisations he should contact for information. Over a period of five months he spoke to: the Tonga Visitors Bureau, Tonga Trust, Langafonua 'a Fefine Tonga (NGO), Ministry of Fisheries, Tonga Association of NGOs, 'Aloua ma'a Tonga (NGO), Ministry of Works, Tonga Water Board, Central Planning, Ministry of Agriculture and Forestry, AusAID Tonga Fisheries Project, Ministry of Health, Department of Environment, Australian High Commission, New Zealand High Commission, European Union Project Coordinator, Ministry of Fisheries.

All of the reports reviewed and information collected during meetings with stakeholders was compiled into a summary report, which helped the National Environment Committee to assess what the priority environmental concerns were in Tonga, what was being done to address them and then to decide agree that the program should aim to prevent the degradation of marine and freshwater quality caused by waste. The Project Manager's information helped the Committee to make an informed decision about potential priorities for the Tonga project.

Source: IWP Tonga, 2002, Working Paper 1, Review of Priority Environment Concerns in Tonga

The initial community profile will most likely cover information at a broad level on various issues from a range of different sources. For example, in the Niue case described in Case 19, information on a range of topics helped was collected initially to gain an understanding of community characteristics and what the key resource management concerns were at the community level.

Case 19: Community profiles in Niue

Before starting consultative workshops in Niue villages, facilitators gathered a range of information about village and resource conditions, including:

- population (using information from the national census).
- main village organisations, as well as key district and national bodies.
- local livelihoods (using information from the national census).
- relevant policies and laws at the national level (from government papers).

Profiles also used information from initial community workshops, which included activities such as:

- stakeholder identification and analysis to help understand the roles of various players in the resource management issues and potential solutions.
- marine transects: this involved a walk through a reef area by facilitators and community members to look at the biophysical environment, resource use and management practices for these areas. See Annex 2 for an example of a marine transect.
- seasonal fishing calendars: this involved facilitators and community members looking at seasonal patterns in fishing and the use of resources at different times of the year. See Annex 2 for an example of a fishing calendar.
- village and resource mapping: this involved mapping the village environment to identify the location of main features and resources.
- participatory problem analysis and development of solutions trees. The exercise for PPA is shown in Module 3.

Source: Niue IWP, 2003, Participatory Situation Analysis: Summary Report of Village Consultations in Niue.

Topic 4.3 Socio-economic baseline assessments

A baseline assessment provides a current snapshot of a site and its population, preferably before or during the early stages of a project. It establishes a base of information on critical factors and variables against which change can be measured. A baseline assessment is also a way of getting knowledge about the target population and its social context, economy and resource management (Russell and Harshbarger, 2003).
The information collected in an initial community profile (see Topic 3.2) can be used to plan a baseline assessment and is also a starting point for the information to be collected in the detailed baseline assessment.

Why do a baseline study?

Baseline information is important:

- To assess the extent of problems;
- To validate and assess the contribution of a cause to a problem;
- To assess the impact of an initiative or program, how it has affected communities, their livelihoods and resource use patterns. Without a reference point, it is difficult to assess change.
- If undertaken systematically, baseline information can help to make sure that we have enough information to assess the impacts and outcomes of a project later on.
- To help with project planning. Baseline assessments provide information on the community, its resource use patterns and economy. Such information can help to focus programs appropriately and improve project design, involve appropriate stakeholders and improve the likelihood of achieving sustainable and equitable outcomes.
- To provide information needed to facilitate stakeholder participation (which can be written up specifically in a Stakeholder Participation Plan).
- To identify important indicators of social change that can be tracked through monitoring while a project is being implemented.

What information do we need for a baseline assessment?

Identifying information needs is an important starting point for any socio-economic assessment process.
The information and issues covered in a baseline assessment depends on the focus of the project. The background information gathered during initial consultations to develop an initial profile (see Topic 4.1) provides a basis for designing the baseline study. This initial information can also be used in the baseline analysis.
A socio-economic baseline study will consider the social, cultural, economic, political, and institutional conditions that have a bearing on the resource management issue and its potential solutions. Similar to the initial profile, these may specifically include:

- Demographic information e.g. population, age distribution, gender.

- History of community/settlement.
- Local services and infrastructure.
- Social structure and background e.g. kinship system, leadership roles within the community.
- Social and economic factors influencing human behaviour in relation to the resource problem, including:
    - attitudes, values, perceptions and beliefs (affecting resource use
    - formal and informal rules governing resource use
    - incentives for resource use (e.g. financial returns, exchange obligations).
- Gender roles in relation to the resource management issue..
- Impacts of resource use on others.
- Local knowledge regarding the resource issue.
- Economic activities and livelihood options.
- Local organisations and institutions (e.g. church groups, women's groups).
- Political structure and governance (e.g. how are decisions made in the community? How do community systems mesh with governance systems at the provincial or national level?)?
- Conflicts between stakeholders.
- Community's source of information and media habits (e.g. availability of radio, TV).

In addition to these factors, it is also useful to collect information on economic factors that motivate people to use resources in the way that they do. These may include (from Lal and Holland, 2004):

- Access to the resource – how it can be used, who has access to it, tenure, certainty of tenure.
- The price at which goods and services that use natural resources are sold.
- The costs of producing goods and services that use natural resources.
- A description of the markets for goods and services using natural resources (infrastructure, producers and consumers).
- Local, national, international and customary rules and regulations concerning resource use, together with information on their effectiveness.

Where stakeholder participation is an objective, it is also important to find out about social, economic and cultural factors that may affect stakeholder participation in the project. These can include:

- Differences in social status between groups.
- Gender differences.
- Stakeholder availability (e.g. are there constraints on time and effort at certain times of year?).

- Political/social context (e.g. Is it important to work with existing leaders? What is their relationship with other stakeholders?).
- Institutional means (e.g. are there existing rules and bodies that the project should support and work through?).
- Is there a degree of commitment from stakeholders to work with the project?
    - What are the views and attitudes of stakeholders to any provisional project goals?
- Conflicts (e.g. are there conflicts between groups that may influence their engagement with the project?)
- Any other constraints to participation.

Not all of these areas will be relevant in every project, and information needs have to be targeted according to the scope and focus of the project (see the hint below).

Hint: This may all look rather complex! Yet remember that baseline assessments do not need to cover everything.

In designing a baseline study, keep in mind the resource management issue you are trying to understand, so that you can stay focused on the relevant social, economic and cultural conditions. The resources available to you will also determine how detailed your baseline study can be.☺

In addition to this information, don't forget that there may be specific questions, issues and assumptions to investigate from the stakeholder analysis and the participatory problem analysis. (See Issue 13). Following these leads will help you to understand and check the resource issues, problems and causes.

Issue 13: Participatory problem analysis and stakeholder analysis can help with baselines

As you review the outcomes of the PPA and stakeholder analysis, think about whether you have any specific questions or uncertainties about the environmental problems and their causes.

Is there is anything more you need to know so that you are reasonably certain that you-

- have described the problem
- understand the causes of the problem.
- understand the effects of the problem.
- understand who is responsible for the problems and causes (stakeholders)
- understand how different stakeholders understand or care about the problems, causes and effects.

Think about any other questions or specific information you need in order to describe accurately the current or 'baseline' situation around the problem and its causes. Then you can check these conditions in the future to see if the project has actually changed anything.

Two examples of baseline studies that aimed to understand social conditions related to the management of marine resources are the Arnavon Islands Community Baseline Study (Mahanty, 1995)and the Milne Bay Community-based Coastal and Marine Conservation Program. In the Arnavon case, an initial process of community workshops was used to understand key resource management issues. The baseline study then focused on understanding relevant social and economic patterns and trends. The next activity is to help project staff clarify their questions and relate them to information sources and methods.

Activity: Examining Questions, Information Needs and Methods

Purpose:

To clarify questions, information needs and potential methods for a baseline analysis. The matrix provided enables you to examine your questions, and work out which possible methods may be used to meet these information needs in a baseline study.

Participants:

This activity is used with by a project manager together with other project staff.

Materials:

Matrix table included in this activity

Flip chart paper

Coloured marker pens.

Time:

1 hour

Steps:

To use the matrix, follow these steps:

1. With the project team or project stakeholders, determine what specific questions or uncertainties you have about the nature and extent of any resource management problems, their causes or their effects, or who is or should be responsible for them.
2. Determine what specific information you need to answer those questions.
3. Select which specific research method you and the other stakeholders could use to collect each type of information.
4. Identify who would carry out each type of activity.
5. Determine how and to whom you will report on your reasons for collecting the information, any required inputs, and the outcomes.

Note that a selected combination of methods is likely to be most useful, and is also important for cross-checking information.

Activity Worksheet: Matrix on information needs and methods

Questions	Information Needs	Methods	Details (who, what, and when)

Activity example: Information needs and methods for a water quality project baseline assessment

Questions	Information Needs	Methods	Details (who, what, and when)
To what extent do chemicals contaminate coastal waters?	Level of chemical contaminants in water	Water testing by experts	Organise government water engineers to do chemical tests; Sites to be determined by water authority in consultation with stakeholders.
How would herbicides and fertilisers enter the coastal area?	Ground water flows into coastal waters	Past reports on ground water supplies Technical expertise Conduct test	Report by ….. Check Min of Health Univ. of Auckland Ground water
How widespread is the use of fertilisers and herbicides by the community?	Average amounts of chemicals used by each household	Focus groups Household survey Sales records	Primary stakeholder groups Site Villages – all households Check data against local sales records?
What are the people using the chemicals for?	Specific purposes of use of chemicals	Focus groups of community members Household survey	Primary stakeholder groups Site Villages – all households
Which groups in the community are using the most amount of chemicals? The least?	Characteristics of use by different stakeholders	Household survey	Project manager and facilitators. Design assistance from technical resource people.
How knowledgeable are community	Community knowledge of harmful impacts	Household survey	

members of the potential harmful impacts of chemicals?	of chemicals		
What education programmes do exist?	List of programmes carried out by NGO or Govt	Interviews of govt. or NGO persons Project Reports and documents	Project manager.
Have these awareness programmes been measured for effectiveness?	Evaluations of past awareness programmes	Discussions with relevant govt depts and NGOs carrying out programmes	
What are govt policies on use of chemicals?	Government policies on health and use of herbicides and fertilisers	Published policy statements of DAFF Interviews with Dept of Agriculture	
What tests have been carried out on contamination of water supply?	Details of all past tests		

Source: IWP Train-the Trainer workshop materials, 2003

Topic 4.4 Methods for Socio-economic Assessment

This topic outlines possible methods to collect information for socio-economic baseline assessments. The aim here is to give you an overview of options, but not to run through how to use each method in detail (to do this properly would require a manual in its own right!). A very useful manual on this topic has been developed by the IUCN that goes through 'how to' on each of the methods mentioned here (see Bunce et al*.,* 2000 or http://iucn.org/themes/wcpa/bome/socioeconomicmanual.htm). Annex 2 includes more detail on many of the methods covered here.

It is important to be aware of the full range of methods available to finding out about social and economic conditions. Some information we need for baselines (and monitoring) will come from participatory methods (eg PRA tools), other information will be drawn from literature, observations, surveys or other methods, and information and knowledge held by stakeholders with specialised roles, or technical resource people (Russell and Harshbarger, 2003). Some methods, such as surveys, are quite involved and may require advice from technical resource people on design. However, it is sometimes necessary to use these if there is not enough known about a community and its relationships to resources. An example of a mix of methods can be seen below in Case 22.

Case 22: Finding the right mix of methods in Niue

In the Niue Participatory Situation Analysis, facilitators used a combination of methods to gather information about resource management issues and community conditions:

- Village profiles drawn from existing literature and facilitator knowledge, provided an initial picture of communities, including: population, key organisations, village resources and infrastructure.
- Stakeholder Analysis
- Participatory Problem Analysis
- Marine transects with specialised user groups (men and women) provided information on resource use and degradation of marine resources
- Seasonal calendars provided background on specific species and harvesting patterns.

Participatory methods were new to most participants. The opportunity to analyse and discuss issues of concern was stated by many participants as one of the greatest strengths of the process. There were some difficulties in meeting arrangements, language, timing and sequencing of activities, and participation levels in some villages. Despite these challenges it was an important learning process for both the IWP and Niue.

Out of this process, the National Task Committee endorsed selection of two villages to initially commence activities to address the declining availability and degradation of marine resources in Niue.

Source: Niue IWP 2003. *Participatory Situation Analysis: summary report of village consultations in Niue,* IWP, Niue.

Published and Unpublished Information

Information about communities and resource management issues can be gained from a range of written sources. Possible information sources and where to find these are discussed in detail in Module 3.1. Briefly, these include:

- Reports on or about the community.
- Journal articles on the resource issue.
- Government Census data.
- Aid agencies reports on capacity or education.
- Previous Fisheries, Environment Unit, Health Department, Forestry, Commerce or Tourism reports.
- Masters or PhD theses.
- Provincial or National Development plans.
- Market or product analysis.

Remember to check the internet, local public library, local university or college libraries, research libraries in local government departments, and research libraries in international agencies located in your area.

Community Records

Communities may keep day-to-day records that are useful in baseline assessments. For example, the records/receipts of the community store or local buyers (e.g. the purchasers of marine products); church records; working group meeting records. People may be sensitive about sharing commercial or personal information.

Expert Advice and Technical Analysis

There may be organisations (e.g. SPREP or NGOs working in the region) who can provide technical advice and support related to your resource issues. If you decide to get help, do your homework first with published and unpublished information. This will help you to ask the right questions of technical resource people, and use them to fill the gaps.

Observation

Observation involves describing and recording what you or other team members see in a village. It is a useful method for looking at visible changes in the community, like housing types, that carry information about the standards of living and change in communities. It is also a useful method for observing community behaviour in relation to resource use and management, and relationships between stakeholders. Observation can involve being actively engaged and asking questions, for example going along on a fishing trip and asking about fishing practices. See Bunce et al., (2000: 92-94) for more information on observation techniques.

To be useful beyond the immediate moment and to provide documentary evidence, it is important to systematically record observations in some way, either by writing them down or verbally recording the information. This

allows you to look back at information when you are looking to answer questions about resource issues and community conditions.
Participant observation, where you 'observe while doing', can be a useful way of learning about resources use. Some background on this method is in Annex 2.

Facilitated focus group discussions

Focus groups are small group discussions around a theme or set of questions. Often groups will be selected from a similar background, for instance women in a village, fishers, business people and so on. This is a useful method to find out the views and perspectives of specific groups on resource issues and project activities.
A checklist of questions or structured activity (e.g. the transect activity in Annex 2) can be used with the group to help stimulate discussion on the issues of interest. It can be useful to work in a team so that one person is recording information while the other facilitates.
It is important to build rapport with the group. Use open-ended questions and record the information. Check if confidentiality (not identifying the source of any information you collect) is important to the group. See method profiles in Annex 2, Bunce et al. (2000:101-105) for more information on how to run focus groups), and Russell and Harshbarger (2003: Chapter 12) for more information on group interviewing.

Semi-structured individual interviews

There may be times when information is best obtained from individuals rather from a group. For example, there may be particular individuals with specialised information and knowledge, such as elderly people in a community who know about how resources have been used and managed in the past, leaders, and so on.
Semi-structured interviews usually involve preparing and using a list of discussion points or questions to guide the interview. Again it is important to build rapport with the person, use open-ended questions and record the information. Confidentiality may be an important issue for individual interviewing. See Bunce et al.(2000:96-100) and Russell and Harshbarger (2003: Chapter 12) for more information on interviewing. There is also more information on this method in Annex 2.

Interviewing

Group or individual interviews are a good method to elicit information where people have specialised knowledge or where you are trying to gain a more detailed understanding of their views than a standard survey allows (see information on surveys below). Whether you are working with groups or individuals, it is important to build a good rapport with your informant. Annex 2 contains some strategies that can help to build better interviewing relationships and gather relevant information.

Oral histories

Oral histories are a particular kind of individual interview, where the focus is on obtaining historical information and personal histories from the informant (see Annex 2).

Surveys

Formal surveys use specially designed forms or questionnaires. In a large survey, the range of possible answers to each question may be known in advance and is listed on the form, so that the interviewer simply marks the appropriate reply. For example, questionnaires may include check boxes, multiple choice questions, ranking questions and so on. Open-ended questions, if used, are often limited to just a few.

Surveys can be a useful method to gather information in a systematic way that represents the views or patterns of a larger community or stakeholder group. Surveys can provide useful information on things like livelihoods, income, education, and health. It is important to build on and complement rather than repeat information found in national census data (remember about doing your homework first). Surveys can also complement the more descriptive and rich information you can find through individual and group interviews, rather than needing to cover the same ground.

Surveys can be costly and take time to administer and analyse results. Yet, if well designed, they can provide useful information on community conditions relevant to the resource management issue. The design of a survey, and how you administer it (e.g. how many households you cover, and which ones) are important if the survey is to give you 'representative' information. It is often useful to get advice from technical resource people on these matters.

Issue 14: Some useful thoughts on surveys

> Take out confusing questions, questions that involve very long and detailed responses, and sensitive questions (unless carefully tested). In short, remove all questions that can be better answered in informal interviews, group interviews, key informant interviews, by observation, or in reading existing sources. A half an hour is more than enough time to spend with each respondent. More than one hour is too much. Too much data means too little analysis.
>
> Source: (Russell and Harshbarger, 2003: 234)

Some important issues in designing a survey are summarised here (Issue 14). For more information on survey design and 'sampling' (how many and where you will do them) see Bunce and Pomeroy (2000: 109-112) and Russell and Harshbarger (2003: Chapter 14)

Visualisation Techniques

These have also been called 'Participatory Rural Appraisal' or 'Participatory Learning and Action' techniques, and are techniques for visually displaying information. Such methods are 'participatory' in the sense that they elicit information from and for stakeholders to directly use in decision-making

and planning. Many of the activities in this resource kit, such as PPA are examples of visualisation techniques.
In using such techniques, remember:

- Keep your facilitator hat on! The attitudes, communication, group process and planning skills you use as a facilitator are very important in facilitating visualisation techniques.
- You need to guide people carefully through the participatory process with questions and enough information on how to do the activity.
- Think carefully about how you constitute the groups for activities. For example, is it appropriate to bring 'like' people together in groups, or are you trying to promote sharing between diverse stakeholders?

Brief summaries of the main participatory techniques that can be useful in baselines are provided below. For more information, see Annex 2 and Bunce and Pomeroy (2000: 113-148).

Timelines

A timeline is a visual representation of key events in the history of a village. It can be a useful icebreaking exercise in communities, and helps to highlight critical issues or events that have shaped the current cultural landscape (ie. the interaction between a people and their environment). Timelines provide background on the social and economic factors connected with changing resource use patterns (see Annex 2 for more details).

Venn Diagrams

Venn diagrams are a visual way of representing stakeholders and organisations in a community, and their roles and relationships. This can be important for project facilitators in understanding how the community is organised, and in determining the potential roles and interests of specific groups in a program. The stakeholder map in Module 3.1 is an example of a Venn diagram.

Transects

A transect is a pictorial representation of a landscape between two points, and can include important landscape features, landuse, and settlement patterns. The process of preparing a transect provides an opportunity to gain an overview and start discussion on key resource management issues such as tenure, and important resources and places for various groups in the community (See Annex 2 for an example of a marine transect).

Trend Diagrams

Trend diagrams are used to explore changes in the status of resources and well-being in a community. This information can be used to discuss future management options.

Seasonal Calendars

Seasonal calendars are a representation of activities in a community over a year. The calendar may be organised by calendar month, or key seasons in the year. It relates patterns of activity in the community such as agriculture to seasons, and provides information on times where communities are likely to be busy with critical activities such as harvest, planting, and social obligations (see Annex 2 for an example of a seasonal calendar).

Matrix Ranking

Matrix ranking can be used to help communities prioritise their problems and/or potential management options or solutions. Options or problems are listed down the first column of a grid, and criteria to evaluate each option are displayed across the first row of the grid. The community establishes the criteria used to assess the urgency of problems, or the feasibility and attractiveness of management options, to reflect their needs and concerns. The community then assesses each option against the criteria, to generate an overall score for each option. This technique provides a systematic approach to planning, but can be complex to use in a community setting, and requires time and good facilitation.

Finally, remember that a combination of methods is best to gain the breadth, depth and richness of information that you and other stakeholders need to plan, implement and monitor your project effectively.

Further reading and resources on PRA: (Pretty et al., 1995, Mosse, 1994, Bronson et al., 1995)

Topic 4.5 Managing the information

The availability, management and acceptance of information by stakeholders are important issues in socio-economic assessment. Information is pivotal in defining interests, clarifying shared goals and assessing the feasibility of solutions.

In collaborative assessment, some general principles to follow are:

- Make sure that stakeholders are involved in identifying information needs.
- Work towards active participation in the gathering and analysis of information.
- Ensure that information is presented clearly and is easily understood by all groups. The personal communication skills for facilitation discussed in Module 2 are important in communicating information gathered in social assessments.

Some common problems related to information gathering and analysis are presented below, with possible strategies and options for dealing with them.

Issue: Common issues in managing information

Problem	Possible solution
Information is incomplete, inaccurate, or both, making it unreliable and of little use.	It is impossible to achieve complete information, but aim for enough valid, reliable, accurate and cross-checked data.
There is too much information.	Prioritise information needs and target the information that meets those needs. Stakeholders need to agree on the relevance of their information and decide what is an acceptable balance of information.
The information is too complicated and difficult to understand.	Have a resource person interpret the information, translating it into lay terms or the appropriate language. When presenting it - make it relevant! Remember there is a need to present information in a way that demonstrates how it relates to the interests of the stakeholders.
There are different or conflicting interpretations of the same information.	Obtain other independent views or interpretations of the information.
Different groups see their own information as most accurate. For example, professionals may have an 'elitist perspective' in which technical information is valued over local or traditional knowledge systems.	Acceptance of other groups' information is frequently an issue. The facilitator should help the group to see the strengths and weaknesses of all systems of knowledge.
Information may be purposely biased	A certain level of transparency should be

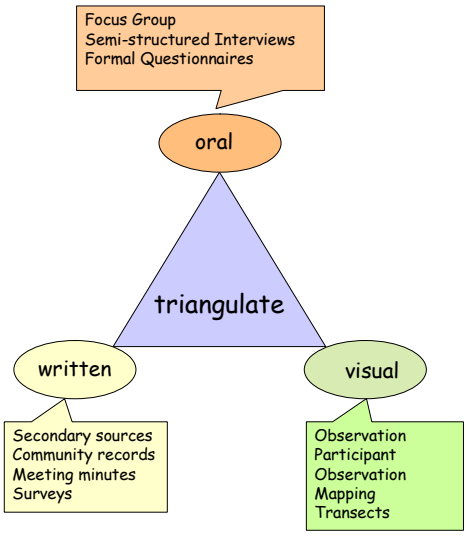
to cover hidden agendas.	encouraged. The interests of individual groups and the common goals should be reviewed openly.
The costs (staffing, time, materials) of collecting the necessary information may be high or unrealisable.	Brainstorm possible ways to meet these needs with the overall group.
Recording and analysis of information	Plan the analysis before collection
Reluctance of stakeholders to share information	Identify another source? Clarify stakeholders concerns and ground rules regarding confidentiality of information Respect cultural system (traditional knowledge access)

Source: IWP TTT workshop materials, 2003.

How do I know the information is accurate?

Triangulation is an important principle to bear in mind when gathering information. Triangulation is a process of cross-checking information by using information from a range of different sources. By using a range of information sources – oral, written and visual – the accuracy of your understanding of resource issues and their social context can be improved. The triangulation diagram shows how some of the methods discussed in Module 4.3 can complement each other to cross-check information in this way.

Figure: Tr:iangulation



Topic 4.6 Making sense of the information

An assessment aims to interpret key social, economic and biological conditions of a resource management issue. The starting point is to clarify your questions and information needs as a basis for the assessment. This helps you with the assessment in two important ways:

- It will help to ensure that your data collection process is focused and strategic, rather than trying to get information on absolutely everything.
- Having clear focal areas and questions will make the job of 'making sense of the data' or data analysis much more manageable.

Broadly, the process of analysing data is one of looking for the main stories or key leanings from the questions and social factors you have examined. The process involves:

- Systematically looking through the information or data coming out of the various methods selected.
- Identifying the main learnings from particular questions, issues and stakeholders.
- Writing up and communicating the findings to stakeholders.

This module will introduce you to some issues and principles to help you with data analysis. Data analysis cannot be simplified into a 'recipe' that you can use in all situations as your data, questions and audience will vary from situation to situation.

It is therefore important that you work in team rather than alone. This helps to bring many minds to the task, and to build skills and knowledge in the project team. Also, be prepared to seek help from resource people and use resources like the manual by Bunce et al. (2003) to help you as you build your skills in analysing information.

Ways of examining your information

Using a mix of methods will leave you with a mixture of descriptive (qualitative) and numerical (quantitative) data about different social, economic and biological factors related to the resource management issue you are exploring. Data for your baseline assessment, for instance, may include:

- Census data on population, education and livelihood activities (generally presented in numerical form as statistics)
- Workshop outputs (eg. stakeholder analysis, PPA, visual exercises such as transects, seasonal calendars and so on)
- Notes from focus group discussions about people's views on resource issues and management options.
- Survey results (if you have conducted a survey).

If you have been facilitating many of these processes, you are probably already getting a feel for what some of the issues are. Yet data analysis goes

beyond these initial impressions to look systematically through all the information you have collected for the main themes and learnings.
The first step is to put your data together in a way that you can easily view the information. The manual by Bunce and Pomeroy(2003) includes analysis sheets on specific topics that help you display your data in a way where the meaning becomes clearer and it is easier to interpret. An example of their form for population related information is included here (Example 1), and illustrates that having questions in your mind as you look over the data helps to look for 'answers' or key points. Bunce and Pomeroy (2003) have developed similar analysis sheets for many other social and economic factors commonly related to resource management issues. Other examples included here include: income analysis in the Arnavon islands (Example 2) and resource use in Niue (Example 3).

Example 1: Analysis sheet to analyse key social variables:- age, gender, education, literacy, ethnicity, religion, language
What is it?

Age, gender, education, literacy, ethnicity and religion are basic demographic information about a community.

Education often refers to the average number of years of formal schooling completed by people in the area who are over 16 years old.

Literacy refers to the percentage of people in the study area who are able to read and write.

Age refers to the percentage of people in the study area in different age categories.

Gender is the percentage of the population that are male and female.

Ethnicity and religion are the percent of people in the study area that have various ethnic and religious affiliations.

How is the data collected?

Often such information is available from secondary sources like the government census, town offices and community centres. Data collection focuses on determining the per cent of people in the area in the various categories that have been defined (eg age categories, male and female etc). Also often household surveys are conducted in absence of current and reliable census data

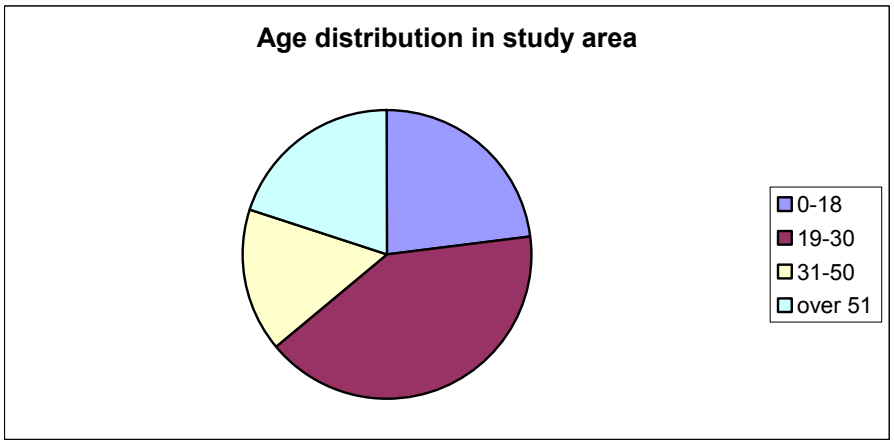
How to analyse the data: Bring together relevant information on each question (see below) from secondary sources and informants to determine the percentage of people in each of the categories.

For example, the community age question may be answered as:

Percent of community in different age categories

Age group	Percentage
0-18	23%
19-30	41%
31-50	16%
Over 50	20%

Additional analysis: a pie chart can be useful to visually illustrate the age (also religious and ethnic) distribution in the study area.



Data could also be extracted from surveys on factors such as:

- Percentage of the population that is literate (can read and write)?
- Ethnic make-up of the study area (percent of each major ethnic group in the study area). Eg.

Ethnic group	Percentage
Group 1 (specify)	
Group 2 (specify)….	

- Religious make-up of the study area. Eg.

Religious group	Percentage
Group 1 (specify)	
Group 2 (specify)….	

- Major languages spoken in the area. Eg.

Language group	Percentage
Group 1 (specify)	
Group 2 (specify)….	

Source: Bunce and Pomeroy, 2003: 20-21

Example 2: Analysing key income sources for communities in Kia Village (Arnavon Islands Marine Conservation Area)

Income source	Percentage of households with income from this source	Overall ranking (importance as an income source)	Percentage of households allocating this ranking
Sell marine products	88.7	1	60.4
Sell plantation crops	69.8	2	30.2
Sell fish	58.5	3	18.9
remittances	66.0	…	…

Source: (Mahanty, 1995)

Example 3: Analysing how villages ranked the decline of specific marine species in Niue

Species	Number of Villages finding this species is declining
Alilis and segame (mollusc)	13
Crabs (combined of all types)	11
Hihi-hihi muitea (mollusc)	10
Ugako (mollusc)	10
Tatukumiti (shellfish)	9
Seaweeds	8
Feke (octopus)	8
Sepulupulu and loli	8
Matatue/ Papahua	8
Matapihu (mollusc)	8
Gege (clams)	7
Fouli and Fuafouli	6
Kina or vana (sea urchin)	6
Mama Matatue (mollusc)	5

Source: Niue IWP, 2003. PSA Report

Identifying the main learnings

Assessment is ultimately a process of learning, to improve our understanding of a situation. It is therefore important when we analyse data to move beyond summarising information to look at what we have learned about the issue or question. For example, a key focus in the Niue IWP Participatory Situation Analysis was to identify what villagers regarded as priority resource management issues.

One way a project team can identify major themes or issues is to get together to review and refine their findings about stakeholders and social, economic and resource related factors. As part of this, they would review their analysis sheets and matrices, major themes in interview notes and workshop outputs. This is also the time to consider any cross cutting or major themes, and any additional information needs (Bunce and Pomeroy, 2003, Bunce et al., 2000).

The communication processes discussed below can help to check back with stakeholders about some of these major findings. Do they broadly agree or disagree with the findings? Major differences in perspective may point to a need to investigate an issue further (Bunce and Pomeroy, 2003).

Communicating the findings

In a collaborative project, the process of communicating the results of any assessments to stakeholders is crucial. Without this step, the research is 'extractive' (conventional) rather than participatory. Communication is also an important way of checking the accuracy of your findings.

In any kind of communication activity, we need to keep the audience in mind. Remember that stakeholders in participatory NRM projects may range from villagers to government officials, and that different stakeholders may respond to different modes and styles of communication (See Module 1.2 and 2.7 on communication strategies].

Regardless of the approach to communicating with stakeholders, it will generally be useful to write up the findings in a report of some kind. This will be valuable for:

- later reference by stakeholders and the project team,
- monitoring and evaluating project outcomes, and
- future or parallel initiatives in the area. (Remember how useful 'secondary' sources of information may have been to you at an early stage in the project!).

The following checklist provides an example of a common format for a baseline report.

Checklist: Common Format for a Written Assessment Report

Executive summary

Summary discussion of the main issues and findings in the assessment.

Introduction

Outline the purpose and objective of the assessment, the main questions addressed, and what is known about the social, economic and biophysical characteristics of the area.

Methods and Process

Outline the methods used to collect data.

Results

Present the main results coming out of the data analysis, using diagrams, tables, pictures as well as descriptive text to explain the meaning and importance of these (or narrative).

Discussion

Outline the key learnings from the assessment, relating these back to the purpose of the assessment and the main questions and areas of interest. Note any issues or problems encountered during the assessment.

Recommendations

Recommend any specific actions (eg. project directions, issues for participation, further information collection) arising from the findings.

Source: (Bunce and Pomeroy, 2003: 22-23, see also Bunce et al., 2000: 170-171)

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Module 5: Planning for Change: Project planning

Module aims

This module will help you facilitate stakeholders to work from an understanding of resource management issues to a project design. Specifically, it covers how to facilitate a:

- Solutions tree activity.
- Participatory impact assessment activity.
- Discussion of project options.

Topics

5.1 Developing a solutions tree

5.2 Assessing social, economic and ecological impacts

5.3 Selecting options

5.4 Checklist of project planning issues

Introduction

The previous modules have taken project staff and stakeholders through a process of understanding resource management issues, and their social and economic context. The next stage in a participatory resource management program is planning. During this stage, facilitators working with the project can use the activities in this module involve stakeholders to develop potential solutions and selection appropriate options for development into a project plan.

Topic 5.1 Developing a solutions tree

Once the causes of resource management issues have been analysed, stakeholders are in a better position to develop targeted strategies to address some of the 'root causes'. The solutions tree activity that follows works with the outputs of the Participatory Problem Analysis (Topic 3.3) to develop potential solutions to the identified causes of the resource management problems.

It is important to clarify that not all of the solutions identified in a solutions tree would be picked up in a project plan. In any event, time, skill and money constraints are likely to limit the ability of projects to tackle a problem from every possible angle. Therefore, the solution tree activity discussed overleaf aims to provide a logical basis for considering alternative solutions and planning for the implementation of the solutions selected.

After the potential solutions have been identified, stakeholders can discuss criteria for choosing between alternative strategies to develop into a project map (see Module 6). The activities solutions tree activity can also identify potential areas for action that stakeholders may be able to work on outside of the project framework.

Activity: Developing a "Solutions tree"

Purpose

To show stakeholders how the problem analysis can be used to identify solutions and possible activities for the pilot project.

To better understand what stakeholders believe are possible solutions and valid activities for the pilot project.

The identification of solutions at this stage is not final. The options are assessed and discussed. A 'project map' is later developed for the set of objectives and actions that are likely to gain the greatest benefit with the least negative consequences (the greatest 'net' benefit).

Participants:

Stakeholders who have worked on the participatory problem analysis process follow on to this activity.

Materials:

Flip-chart paper

Post-it notes

Coloured marker pens.

Preparation:

Organise the workspace to enable groups of up to 5-6 to work on the task.

Time:

1 ½ to 2 hours

Steps:

1. Ask participants to review their problem tree and make any needed revisions based on further thoughts and discussions on possible underlying causes.

2. When they are finished with revisions, invite participants to construct a Solutions Tree by converting each 'problem' (the negative statement) into a future positive action. For example, the negative statement 'lack of public awareness of the impact of waste on water quality' may be converted to a positive action such as 'increase public awareness of the impact of waste on water quality'.

3. As participants work, ask them to keep checking the logic of the relationship between different levels to ensure that activities clearly address the problem. Do this by asking IF…THEN as you move up the chart (see figure below on "checking the logic of the solutions tree"). They could do this by asking IF we do the positive action, THEN will the specific problem to which the action is related be alleviated? This is sometimes known as the IF … THEN test. An example would be the question: IF we increase public awareness of the impact of waste on water quality THEN will we reduce ignorance of the impact of waste on water quality? If the answer is 'yes', the logic of the solutions tree holds firm.

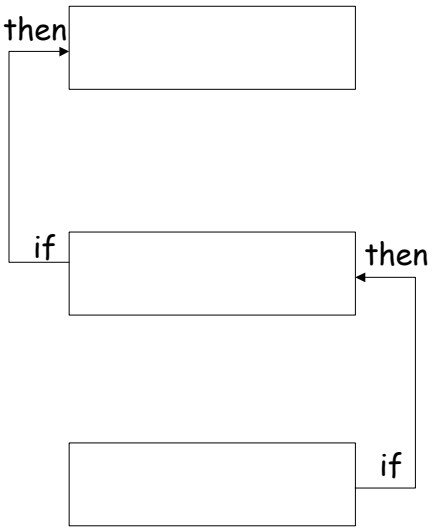
Think creatively and holistically about the solution!

4. If there is any problem with the logic of the solutions tree, you may need to rephrase the positive action. There could be an error in the logic in the Problem Tree so check this also.

5. Check the solutions tree to see if the solutions that may have come up in earlier discussions by participants are represented. If they are not, ask why not? Was the problem tree correct? Perhaps the problem tree needs further revisions? Go back and make more changes to the problem tree if necessary.

5 Ask each group to present their work to the others.

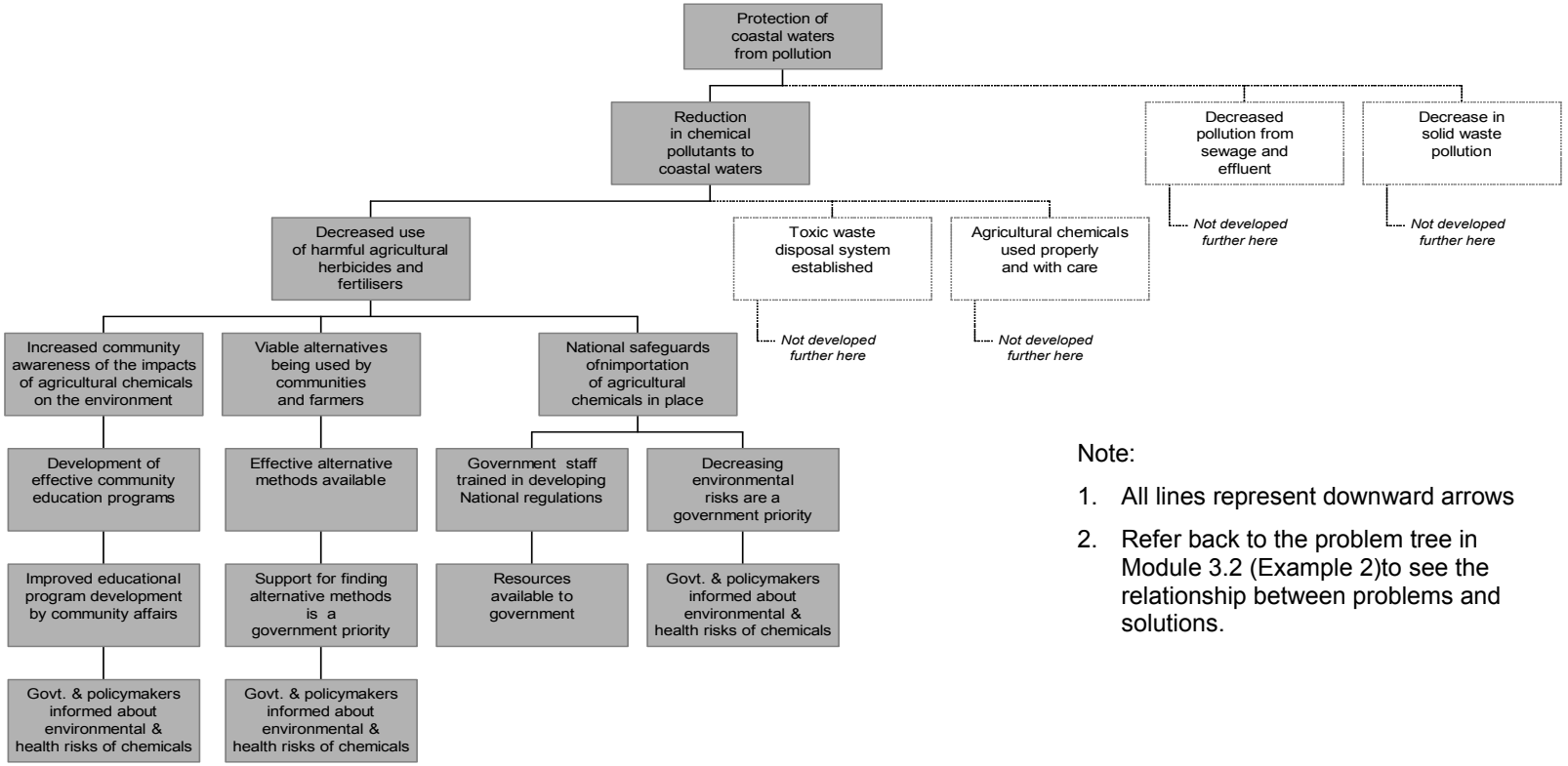
Checking the Logic of Solutions Tree



Check that the lower box will lead to what is written at the box on the next level, and so on. This will help to make sure that the actions on the solutions tree flow logically.

Source: (adapted from Worah et al., 1999)

Example: Solutions tree to address chemical pollution of coastal waters from Niue



Note:

1. All lines represent downward arrows
2. Refer back to the problem tree in Module 3.2 (Example 2)to see the relationship between problems and solutions.

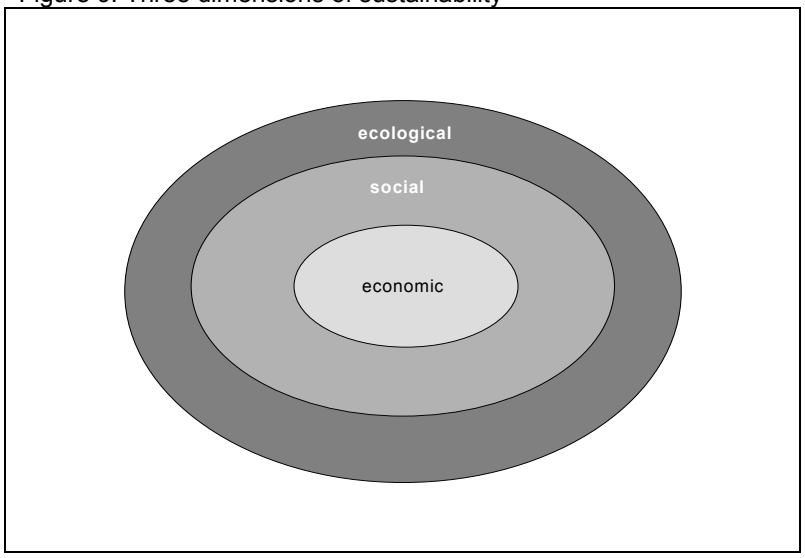
Topic 5.2 Assessing the social, economic and ecological impacts of possible solutions

Any potential solution is likely to have ecological, social and economic impacts. It will, for instance, have intended ecological impacts because the objective of the project will be to alter resource management practices. The solution would also have economic and social impacts because it involves changing behaviour and thereby changing people's access to wealth and resources. At the same time the project may also generate unanticipated ecological, social and economic impacts.

To select the 'best' option to address the environmental problem, project staff will need to work with stakeholders to consider the social, economic and ecological impacts of alternative options. This is because negative impacts on any option may jeopardise the success of the project. For instance, there would be no point in pursuing an option that offers positive ecological benefits if the social and economic impacts of this are so damaging to stakeholders that compliance would be impossible. In fact, severe social and economic implications are a warning sign that an option will ultimately be unsustainable or unviable.

One way of conceptualizing the relationships between the economic, social and ecological is as an 'egg' (see Figure 9), where economic and social actions are nested within the biophysical environment. Action in one area will ripple through the others. Impact assessment helps us to work out what these connections are, so that we can maximise outcomes across these three dimensions and develop more sustainable resource management activities (Lal and Keen, 2002).

Figure 9: Three dimensions of sustainability



Source: (Lal and Keen, 2002)

Environmental impact assessment

Environmental impact assessment (EIA) is a process to support planning and decision-making. It is based on the identification, prediction and

evaluation of the potential environmental impacts of about projects, plans and policies. Impact assessments can involve very detailed technical examinations of the environmental impacts in policies and projects, particularly where projects are likely to have significant negative environmental impacts (Modak and Biswas 1999). The scale of the impact assessment can and should be matched to the project. However, the steps are broadly similar, and aim to integrate consideration of the economic, social and economic impacts of an intervention.

In this section, we will focus of the *social* impacts of alternative solutions and will only consider economic and ecological impacts as they relate to these. Project managers would need to consider *all* these sets of impacts – social, economic and ecological – in practice. Information on the economic aspects of solutions is discussed in detail in Lal and Holland (2004).

Social Impact assessment

Social impact assessment is a specialised form of impact assessment. It focuses on:

- The likely social impacts of what is planned;
- The likely consequences for various stakeholders (eg improvement or deterioration in people's well-being); and
- How to improve positive benefits or minimize negative impacts.

Social impact assessment, like EIA, can be a relatively large and complex process. However, the scale of the impact assessment can and should be matched to the project (Goldman, 2000).

Impact assessment can be done when consensus has been reached on the viability of two or three main options. Alternatively, it can begin in the early stages of stakeholder consideration of problems and with information about likely social impacts being collected and analysed as part of the baseline assessment.

Social impact assessment is linked to stakeholder analysis because it involves considering how stakeholder interests would be affected by different options to solve the problem. A stakeholder analysis in relation to potential solutions (see Topic 3.2) can be used to help identify these impacts. Subsequently, actions can be refined to increase any positive effects on stakeholder interests and or reduce or avoid any negative effects from alternative solutions. The information collected during preliminary community profile and baseline assessments are also important inputs to the impact assessment process.

Who assesses impacts and when?

Project staff may carry out a preliminary assessment of potential social, economic and environmental implications of a project on their own or in consultation with government in the process of determining where to locate projects. This preliminary assessment can help avoid the strategic mistake of selecting a project site that is unlikely to have viable or politically acceptable solutions. It is not wise politically to go through all the public stakeholder activities leading up to the preliminary assessments only to conclude that "Do Nothing Different" is the best option. Project managers

and other project staff might also begin thinking about environmental impacts in the early stages of stakeholder consideration of problems and information about likely impacts being collected and analysed as part of the baseline assessment.

Stakeholders are likely to raise issues of concern or risks early in the process of consultations—even during the first round of stakeholder meetings. Project staff needs to think about potential social impacts and need to assure stakeholders that possible impacts will be considered in the decision-making process.

EIA is thus central to the selection of social, economically and ecologically viable options. A participatory activity to assess the environmental impacts of options is outlined in Topic 5.4.

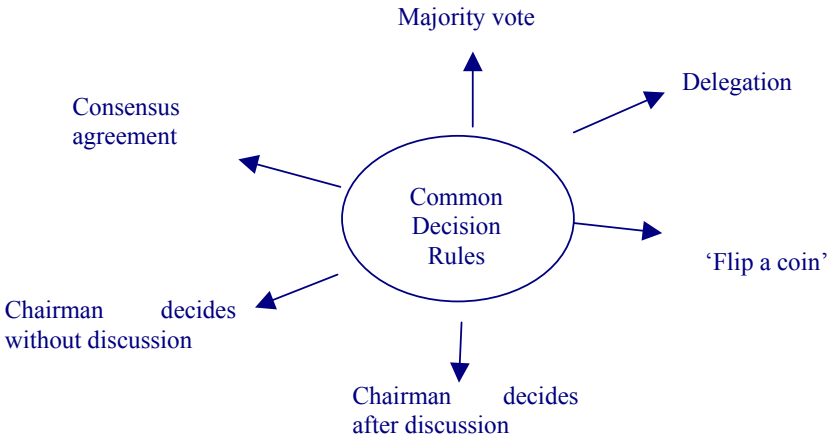
Topic 5.3 Selecting Options

Before assessing impacts, it is important to select two to three options from the wider set of potential solutions developed in workshops. This is necessary because of time constraints, and also because it is unlikely that one project will be able to accommodate the full range of activities.
The topics in this module are intended to support stakeholders to take a considered decision on which options for action they will pursue. The solutions tree Activity (Topic 5.1) will have assisted them to identify potential solutions (options). The impact assessment below will help them consider the likely positive and negative impacts of certain options, including the option of taking no action.
In this topic, we look at the decision-making process and your role in it as a facilitator or manager of a project. We also look at some criteria and techniques that can help stakeholders to assess the costs and benefits of options and choose the actions that are likely to bring the greatest overall benefit in social, economic and ecological terms.

Decision-making in groups: processes and issues

Before moving on to the specifics of selecting options, lets pause and consider the decision-making processes involved. The selection of options for action on a resource management issue is a key decision-point for stakeholders. Your facilitation role at this stage is crucial, and it is important for you to have an understanding the group dynamics of decision-making. Groups can arrive at a decision on an issue in many different ways. Some common rules that you may have come across are shown in Figure 10.

Figure 10: Common decision-making rules.

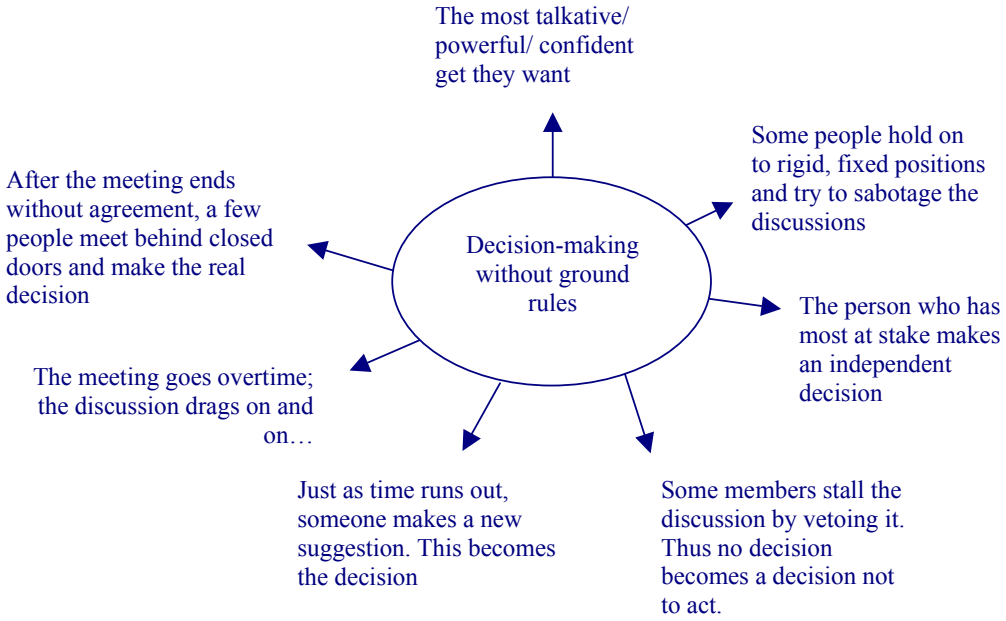


(Braakman and Edwards, 2002)

Looking at these 'common decision rules', you will see that some rules are more consistent with a participatory program than others. For example, a chairman deciding after discussion is a very limited form of participation. In contrast, decision through consensus can allow broad participation, as long as rules are followed to ensure participation in the discussion process.

Without explicit ground rules to guide the discussion, those with power, influence, and confidence are likely to hold sway, or the process can get bogged down and issues are not considered fully or systematically. The decision-making scenario may then look more like Figure 11 below.

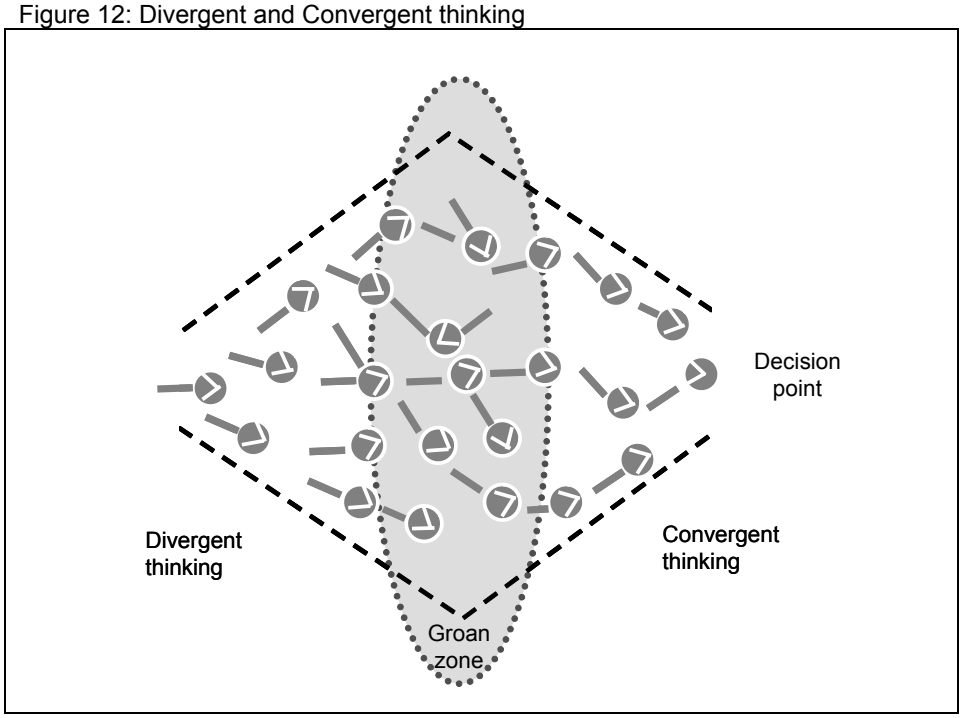
Figure 11: Decision making without rules



(Braakman and Edwards, 2002)

To avoid these problems, it is important for facilitators to discuss and establish decision-making rules with the group. You may even find it useful to use these diagrams in your discussions.
Another important aspect of the facilitator's role is the need to encourage the group to look broadly at issues before moving towards a decision-point. Such an approach challenges the group to move beyond 'business as usual' discussions to look at new ideas and angles. As a facilitator, you can help this process along to broaden discussion and then move back to a decision point (See Figure 12 and Issue 15 below on how to promote divergent thinking).

Figure 12: Divergent and Convergent thinking



Source: Braakman and Edwards, 2002: 47

As the group explores ideas a further challenge for the facilitator is to help them find the point at which free ranging discussion can be focused back to a decision point. This transition point is sometimes called the 'groan zone' because it can be a confusing time for the group as it struggles to find a shared framework. Your facilitation skills are crucial in helping a group move through the 'groan zone' towards a decision point (See Issue 16 below on getting through the 'groan zone').

Issue 15: How to promote divergent thinking

- Alert the group of 'business as usual' discussions.
- Help the group avoid making decisions too quickly by pointing out how limited their input is.
- Encourage everyone to contribute.
- Think about the tools and skills needed to learn about other diverse points of view.
- Suggest ways to structure thinking activities.
- Respect other people's point of view.
- Don't ask people to revise or reconsider their opinions.
- Encourage people to raise difficult issues or challenges.

Source: Braakman and Edwards, 2002: 52

Issue 16: Getting through the 'groan zone'

- Sharpen your listening skills.
- Encourage the group to keep struggling, and assure them that this struggle is part of the normal process.
- Encourage the group to share perspectives.
- Honour objections and ask for suggestions.
- Be patient.
- Be tolerant.
- Be flexible.
- Above all show trust and confidence in the group.

Source: Braakman and Edwards, 2002: 63

Developing criteria for making decisions

Decision-making criteria are factors or qualities of an option that you may use to work out the desirability of particular options for action. Some commonly used criteria in resource management programs are included in the box below (see Issue 17). Explicitly considering criteria is helpful because it allows stakeholders to discuss what factors are important to them in making a choice. If the criteria are hidden or not discussed, factors that are very important to particular stakeholders or have a big influence on the viability of an option may be left out of the decision.

Issue 17: Useful criteria for selecting resource management options

Experience shows that in projects dealing with participatory resource management, it is important to assess options for action against criteria to help select the most efficient, effective and equitable ones. Some useful criteria include that the action or strategy :-

- Increases environmental quality rather than having negative environmental impacts.
- Maintains social cohesion and responsibility to take joint action (otherwise the activity will not last).
- Creates incentives for sustainable resource use.
- Is not so risky as to be unrealistic;
- Has manageable and realistic financial costs (is financially feasible).
- Is culturally acceptable.
- Is equitable in sharing the costs and benefits

These kinds of criteria can be introduced to discussions with stakeholders if key areas have been left out of their discussions, or if they are having trouble getting started on identifying criteria that are important to them. It is not necessary to address all these criteria in decision-making. However, some criteria should always be considered (for example feasibility criteria – see Issue 18 below).

The criteria that come out of stakeholder discussions can be used in a number of ways to assess project options or solutions. The activities outlined in this module include:

- Impacts tree.
- SWOT analysis.
- Matrix ranking.

These three activities can be used to help stakeholders systematically consider the options against the various criteria that are important to them.

Issue 18: Are the options feasible?

Quite often, projects that seem to be built around 'good ideas' appear to fail. Many of the projects supported in the SPBCP and BCN did not achieve their goals because the planned activities were not feasible in the long term. They therefore did not generate the benefits that were anticipated (Hunnam et al., 2003).

Financial feasibility focuses on the revenues, costs and or profitability of an activity. This is critical for financial planning (ensuring sufficient flow of money) and for assessing the profitability of any income generating activities. Revenues are receipts earned for goods or services sold. They also include any financial subsidies from governments or NGOs. Costs are all financial costs (such as salaries, rent, inputs, electricity, taxes and so on), Financial feasibility assessments should also reflect the *operational viability* of an activity. This may include practical considerations in implementation such as whether staff are adequately trained to do the job, climate or infrastructure and risks (such as strikes, loss of power etc.) (Lal and Holland, 2004).

Economic feasibility assesses the economic benefits and costs of activities. These are the benefits and costs to society of using resources in an activity. These include the value of environment impacts on resources and changes in environmental quality, the efficiency with which resources are used and the distribution of benefits and costs of an activity across the community concerned. These issues are critical because a financially viable activity may be *economically unviable*. For example, an ecotourism enterprise may generate profits for a community, thereby assisting it to reduce fishing an area heavily. Yet if the pollution arising from the hotel is significant, the community may be worse off than they were before the activity began (Lal and Holland, 2004).

Social feasibility considers such issues as: the degree of stakeholder support for an action, compatibility with the cultural and institutional context, the level of equity in the distribution of benefits and costs amongst stakeholders, and risks in the social environment (e.g. conflict, rapid social change processes such as migration). This is important because factors such as inequitable distribution of benefits or high levels of conflict in a community can make a project unfeasible (see for instance McCallum and Sekhran, 1997 on the importance of considering the social viability of an integrated conservation and development projects in PNG).

The "Impacts tree" and "Swot analysis" activities that follow can be useful in analysing the costs and benefits of various options. The SWOT analysis can be used to analyse the strengths and weaknesses of specific options. The matrix ranking activity can be used as an alternative to SWOT analysis to evaluate a number of options against agreed criteria. Once the range of options has been narrowed down to two or three, the impacts tree activity (the final one in Activity 5.3) can be undertaken.

Activity: SWOT Analysis

Purpose

To assist stakeholders to make an informed decision about which potential solution to adopt. This activity assists them to do this by getting them to focus on the relative strengths and weaknesses, opportunities and threats related to particular project options.

SWOT Analysis can also be used to assess the strengths and weaknesses of an organization or partnership in relation to a project or managing a resource management issue.

Note: The criteria discussed earlier in this topic may help to identify specific strengths and weaknesses, opportunities and threats. Eg. A weakness may be that the option is culturally unsuitable (for example, composting toilets are an option to address pollution from human waste, but the handling of human waste may be considered tabu in the target community).

Participants:

Small groups of stakeholders in a workshop.

Materials:

Flip-chart paper

Coloured marker pens.

Preparation:

Organise the workspace to enable groups of up to 5-6 to work on the task.

Time:

1 ½ to 2 hours

Steps:

1. Explain the purpose of the activity.
2. Invite the groups to work with one option each. Try and arrange things so that all the options under discussion are covered by the mix of groups.
3. Invite the group to identify strengths, weaknesses, opportunities and threats associated their option. Opportunities include favourable conditions and possibilities for partnering or extending the initiative. Threats include risks that might diminish the viability or effectiveness of an option.
4. After 45 minutes, invite groups to present their findings to the larger group and to clarify any questions raised.

Activity: Matrix Ranking

Purpose

To allow stakeholders to prioritise possible solutions on the basis of specific criteria. This can be used following the SWOT activity preceding, or as an alternative to the activity.

Participants:

Small groups of stakeholders in a workshop.

Materials:

Flip-chart paper

Coloured marker pens.

Preparation:

Organise the workspace to enable groups of up to 5-6 to work on the task.

Time:

2 hours

Steps:

1. The activity can start by inviting stakeholders to review any criteria that have been developed in previous discussions. If criteria have not previously been developed by the group, allow stakeholders to discuss criteria that are important to them in considering whether a solution is appropriate or not, and likely to succeed or not. You can use the 'common criteria' box (Issue 13) and the likely impacts tree (outlined earlier in this topic) to stimulate discussion on criteria.
2. Once stakeholders have a set of agreed criteria, invite them to enter the criteria on the left hand column of the matrix ranking worksheet included below.
3. Get stakeholders to enter each project option along the top row.
4. Ask the groups to work down the column for each option, giving it a ranking from 1-5 on how well it meets each criterion (1 = does not meet the criterion, 5 = perfect match).
5. Calculate an overall score for each option by summing the rankings for each potential solution. Get stakeholders to compare the scores for each option.
6. VARIATION: If participants want to place a weighting on criteria they feel are particularly important, they can rank their importance from 1-5. If the criteria are weighted, the ranking given in step 4 will need to be multiplied by this weighting. These optional variations are shown in grey columns on the activity sheet below.

Note: the process of assessment is more important than the numerical score. For example, a group may find that the option scoring highest is still not desirable on some other grounds they had not considered yet. The score should not lock them into pursuing particular options.

Source: adapted from (Pretty et al., 1995)

Activity Sheet: Matrix Ranking

	Weighting (optional)	Option 1		Option 2	Option 3	Option 4
Criterion 1			Rank x weight -ing			
Criterion 2						
Criterion 3						
Criterion 4						
Criterion 5						
Criterion 6						
Criterion 7						
Criterion 8						
Total						

Matrix Ranking Example: Matrix ranking of adaptation options for Saoluafata Village (for Climate Change Vulnerability and Adaptation Assessment, Samoa)

		Adaptation options				
Criteria	Weighting (optional)	Planting trees	Sea walls	Reclaim land	Relocation of houses	Option 5
Cost	4	5 (20)	1 (4)	1 (4)	1 (4)	
Community benefits other than climate change adaptation	5	5 (25) (fuel and building materials)	2 (10)	2 (10)	5 (25) (access to new housing)	
Ease of implementation	3	5 (15)	2 (6)	2 (6)	1 (3)	
Environmental benefits	4	5 (20)	1 (4)	1 (4)	2 (8)	
Political support	3	5 (15)	5 (15)	5 (15)	5 (15)	
Total		**95**	39	39	55	

Source: Example from Samoa Capacity Building for the Development of Adaptation Measures in Pacific Island Countries Project, 2003

Activity: Likely Impacts Tree

Background

The 'likely impacts tree' activity can be done with stakeholders when they have identified two or two or three main options or areas of action. Involving stakeholders directly in an assessment process allows them to raise their concerns, and to participate in informed decisions based on an understanding of the consequences of particular courses of action.

The example provided with this activity is of a 'no-action' option. This is sometimes referred to as 'do-nothing' option. No action' refers to no action or direct intervention by the project. Analysing this gives stakeholders a reference point from which to consider impacts. The 'no action' option also has positive and negative impacts on stakeholders. When developing a No Action option, recognise that some actions may occur by other stakeholders.

Purpose

To involve stakeholders in analysing the impacts of various options to deal with resource management issues.

To better understand what stakeholders believe are possible impacts.

The identification of impacts helps stakeholders to clarify the consequences of various actions so that they can eventually select those actions that are likely to gain the greatest benefit with the least negative consequences (the greatest 'net' benefit).

Participants:

Small groups of stakeholders in a workshop setting.

Materials:

Flip-chart paper

Post-it notes

Coloured marker pens.

Preparation:

Organise the workspace to enable groups of up to 5-6 to work on the task.

Time:

1 ½ to 2 hours

Steps:

1. Ask the group to review the Solutions Tree (See Topic 5.1) and other sources of information on possible solutions. Invite them to Identify 2-3 of the potential options that the community project may undertake. Add to this the option of 'No Action'.

   'No action' refers to no action or direct intervention by the project. Analysing this gives the group a reference point from which to consider impacts. The 'no action' option also has positive and negative impacts on stakeholders. When developing a 'No Action' option, recognise that some actions may occur by other stakeholders.

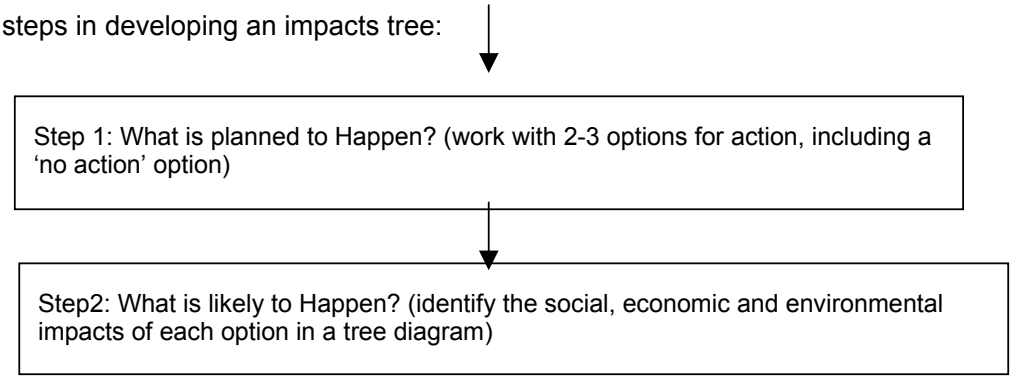
2. For each of the options selected, invite the group to examine what is likely to happen as a consequence of that action being taken. Start with

'No Action' option – 'If you don't do anything, what will happen?' Identify the changes that will result – including social, political, cultural, institutional or economic.

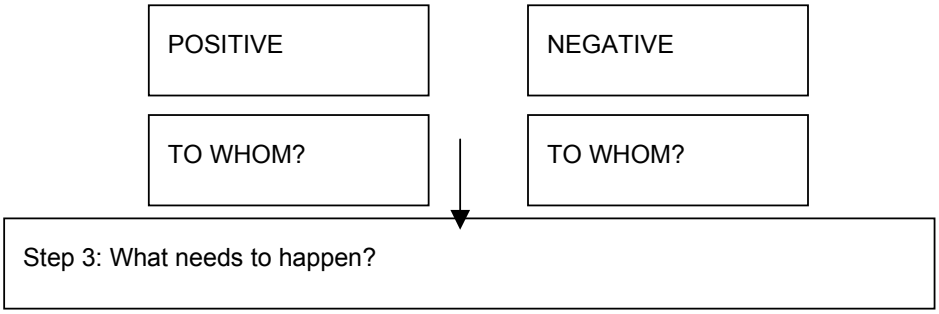
3. For each of the likely effects or impacts (positive and negative) decide which stakeholders are affected.
4. Invite the groups to examine 'what needs to happen?'. For each of the options identified, invite the groups to consider how the negative impacts of alternative options could be reduced or avoided. Invite them also to consider how any positive effects of an option could be increased.

The diagram below can help the groups clarify the main steps in this process.

Key steps in developing an impacts tree:

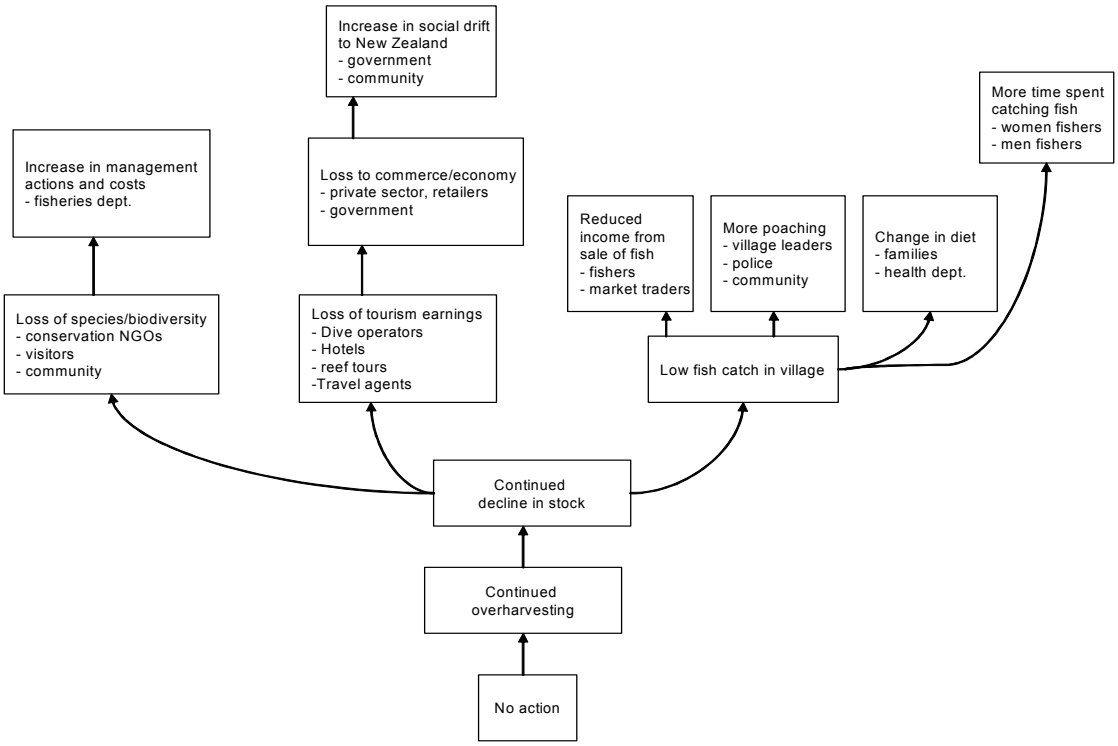


For each impact think about whether they are:



What steps need to be taken to:

Example: A Likely Consequences Tree for 'no action' on marine resource degradation



Source: Solomon Islands group work; IWP Train the Trainer workshop, Vanuatu, 2003

Topic 5.4 Checklist of project planning issues

Once stakeholders have selected an option or options, you can reflect with them on the project planning issues covered in Topic 1.2. Reflecting on these issues prior to developing a more detailed project plan with specific goals, objectives and activities will help to produce a more considered and logical project plan. These project planning issues are summarised below (see Topic 1.2 for a more detailed outline of the associated issues).

Administrative requirements

Financial:

- Identify resource needs.
- Establish accounting and reporting systems.
- Determine who is accountable for use of funds.
- Develop project guidelines on the use of funds.

Personnel:

- Identify staffing needs.
- Develop recruitment procedures.
- Work out salary ranges and costs.
- Clarify roles, responsibilities and workloads of staff.
- Identifying staff training and development needs.
- Encourage staff retention by appropriate recruitment and good working conditions.

Reporting schedules and responsibilities

- Check reporting requirements of the funding body.
- Decide who will prepare reports and liaise with funders.

Equipment needs

- Identify equipment needs.
- Check any restrictions on use of funds for equipment.

Timelines

- Check that project timelines are realistic and allow time and space to work with stakeholders.

Communication strategy

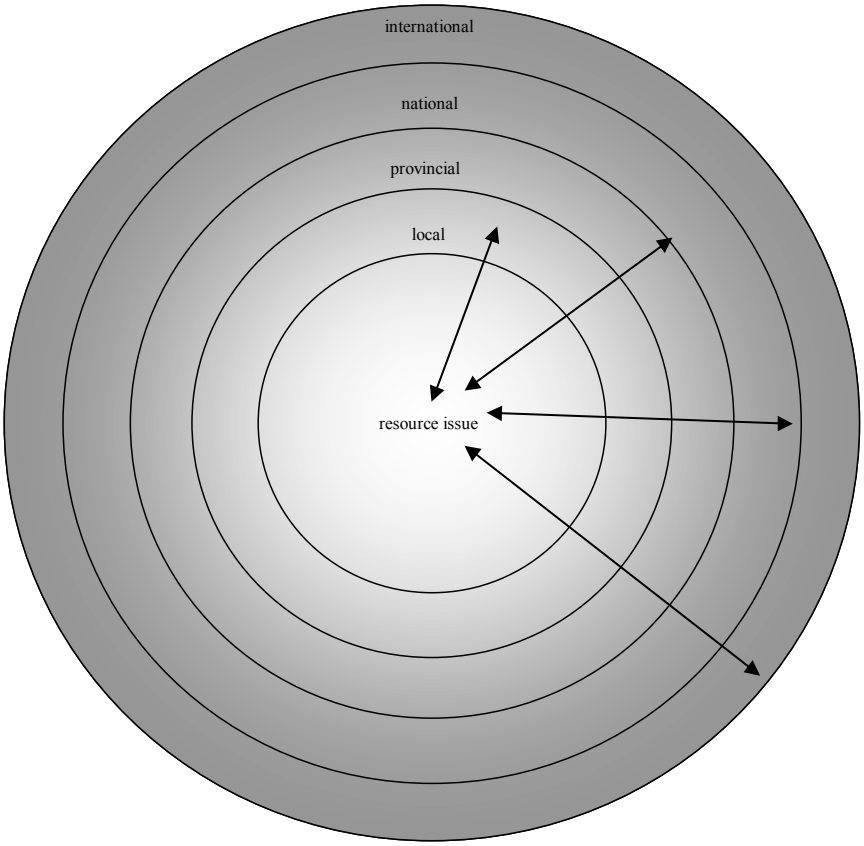
- Develop a communication strategy for ongoing communication with project stakeholders, which covers:
    - Objectives of the communications activity
    - Target groups
    - Messages/Content
    - Communication techniques
    - Schedule, timing
    - Budget
    - Who is responsible
    - Monitoring

- Is social marketing a relevant approach to consider? Consider this option if behavioural change is one of the proposed outputs for a project. A more detailed resource on this approach is available through SPREP.
- Is community education relevant?

Governance and Institutional strengthening

- Check that any critical issues relating to governance and institutional 'fit' are being considered, including:
    - Relationships between local, provincial, national and international rules and systems for decision-making (these are represented in Figure 13 below).
    - Definition of property rights (ownership of and access to resources)
    - Clear definition of management responsibilities across levels.
    - Organisational constraints faced by government agencies and others) in their role.

Figure 13: Strengthening linkages for effective governance



Partnerships and coordination arrangements

- Determine which stakeholders to engage in partnership and coordination arrangements with others, and what kind of arrangement is suitable (e.g. informal networks, formal agreements, consortiums and alliances).
    - Ensure that partners have a common, clear understanding of their obligations, responsibilities and commitments to the project.
    - Have an agreed plan for managing any disputes between partners

Stakeholder Participation

Develop a stakeholder participation plan that considers:

- Which stakeholders will be encouraged to participate in the project and why.
- Where you will you meet with these groups.
- When – at what stages in the process their involvement will be sought.
- How they will they be encouraged to participate in the project.
- Whether there are any difficulties anticipated in promoting participation by certain groups

Case 23 shows how one project approached its participation plan.

Case 23: Stakeholder Participation Plan for Milne Bay Project, PNG

The stakeholder participation plan for the Milne Bay marine conservation project in PNG covered these topics:

1. How the plan was prepared.

2. Stakeholder identification (primary and secondary stakeholders, and relevant organisations).

3. Information dissemination and awareness raising activities.

4. Social Mobilisation (how stakeholders will be consulted and engaged in the project).

5. Conservation Planning and Enforcement (and how stakeholders will be involved in developing planning and enforcement systems).

6. Monitoring and Evaluation systems (and how stakeholders will be involved in these).

7. Social and Participation Issues (including conflict resolution, creation of incentives for conservation, the role of external actors, how to ensure accountability).

A different way of writing up a stakeholder participation is shown in Case 24 (see Annex 3), which summarises stakeholders and the nature of their potential involvement.

Capacity building and Training

- Can the project improve the capacity of individuals and organisations to work effectively towards sustainable resource management? Keep in mind broad areas such facilitations skills, management skills, and knowledge about the resource and socio-economic environment.
- Consider techniques such as mentoring, reflective practice, on-the-job training, and opportunities for sharing experience with other facilitators in your area, country, region and beyond. Training courses can be used in a targeted way for areas that cannot be addressed through such programs.
- Remember to factor capacity building into your budget.

Monitoring and evaluation

- Develop a plan for project monitoring and evaluation to assess how well the project objectives are being met, and impacts on stakeholders.
- Budget for M&E, including knowledge and skills as well as financial resources and personnel
- Consider how M&E findings will be used in decision making and who will use it, bearing in mind that the purpose of M&E is to learn and modify actions.

See Bunce and Pomeroy (2003) for more information on designing monitoring programs.

Replicability

- Think about opportunities for replication, including:
    - Which groups and areas may be able to learn from your experiences and adapt approaches and concepts used in your project.

  - How you can promote the sharing of lessons from your project with other practitioners and communities.

Sustainability

- Develop a 'succession plan' (a transition plan that outlines how project activities will be resourced and managed when the funding cycle for the project ends).
- Consider other sustainability issues including:
  - Whether project activities will be supported by policies and rules at various levels of government, and by key organisations.
  - Whether stakeholders will have sufficient ownership and capacity to take on the activities initiated in the project.

References for Module 5

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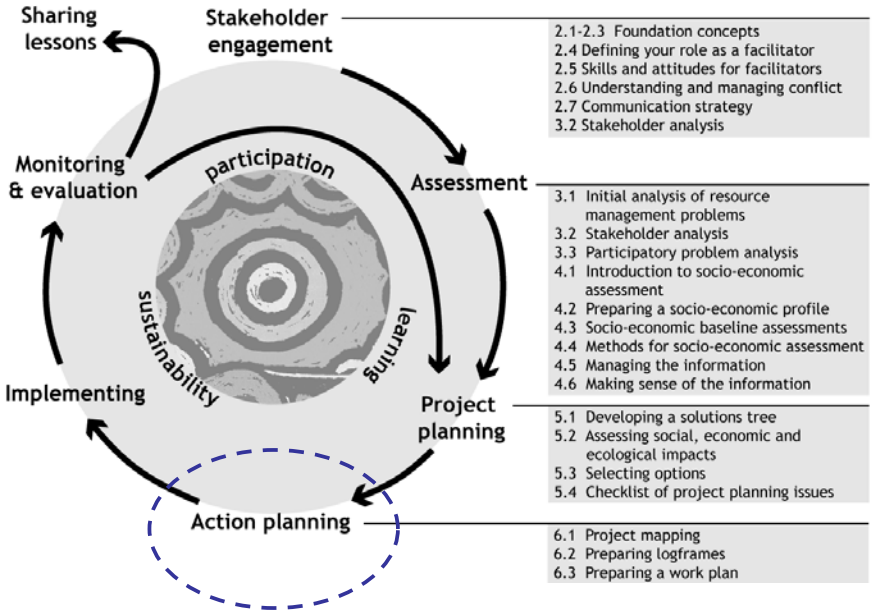
Module 6: Planning for Action



Module aims

This module will develop your ability to work with stakeholders to progress from a broad project design to planning specific actions and activities related to the project. Specifically you will learn how to

- Develop a Logical Framework based on the 'project map'
- Develop work plans
- Monitor project implementation.

Topics

This module includes the following topics:

6.1 Project mapping

6.2 Preparing logframes

6.3 Preparing a work plan

Introduction

The 'action planning' stage involves working out the details of project activities and how they will be implemented. At this stage you will draw on the ideas developed through a 'project mapping exercise' (Topic 6.1) and the other information that has been collected through social assessment activities. These are ideas can be developed into agreed objectives and activities. We use a logical framework approach here to help elaborate on these objectives, outputs and activities (Topic 6.2). The key activities then form the basis for detailed project planning (discussed in Topic 6.3). While the focus is now on more detailed planning, it is still important to remember to involve appropriate stakeholders in discussions (see Issue 19).

Issue 19: Participation is over now; let's get on with implementation…

A common problem that can arise at this stage in project planning is that, while the assessment and planning activities up to now have been participatory, project facilitators now get lost in their own world of work plans and financial spreadsheets.

Don't let this happen to you! Remember to consult and involve appropriate stakeholders while you are developing the details of the project. At this point, we are not necessarily talking about broad consultation in workshops, but specific and targeted consultation of relevant stakeholders on specific issues and questions, such as the details of particular project activities and indicators. The project mapping activity can help to engage stakeholders in working out plans and activities.

On the financial side, stakeholders may not be interested in the day-to-day management of project finances, but transparency in access to financial reports is important. This helps to build trust and also exposes stakeholders to the financial management systems being used for the project, which is important for capacity building.

Topic 6.1 Project mapping

Project mapping is an activity that helps stakeholders visually identify the goals, objectives, activities and outputs of a project from their selected solution (s). In the case of community-based projects, project mapping builds on the results of the PPA (Topic 3.2) and the Solutions Tree (Topic 5.1). Once the stakeholders have agreed on what option(s) to implement, facilitators can work with stakeholders to prepare a Project Map, which identifies an appropriate goal, objectives, outputs and major activities for the project.

In selecting a project option stakeholders will have considered a range of social, economic and ecological factors related to the project. At this stage it will be important again to check again that relevant social, political, cultural, economic and ecological factors and conditions have been considered or essential for the achievement of each level of objective. Also, **assumptions** about any necessary project support, capabilities, commitments or resources will need to be considered. Once assumptions have been considered, further activities may need to be added to the project map, or otherwise propose ways to ensure that those assumptions turn out to be correct.

Similar to logical frameworks for projects (see Topic 6.2), project maps aim to clarify the objectives and activities for a project. The project mapping exercise helps to work out project goals, objectives, outputs and activities (see the Issue 20 below for definitions of these terms). A project map can easily be used as the basis for developing a logframe.

Issue 20: What is a goal?

Goal:
- The longer term or wider objective to which the project will contribute. This may be expressed in terms of the broad aims in resource management (eg. protection of coastal and marine resources).

Objective:
- Immediate aims of the project – what it sets out to do (eg. protection of mangrove habitats).

Outcomes:
- Effects or changes the project aims to bring about (eg. reverse loss of mangroves).

Outputs:
- What the project will specifically deliver.
- Tasks to be completed or activities to be implemented (eg. management rules instituted for a specific mangrove area)

Activities:
- What needs to be done to achieve the outputs (eg. review regulations, meetings with councils of chiefs etc).

(adapted from Sutherland, 2000 and IWP Guidelines, 2003)

Activity: Project mapping

Purpose

To support stakeholders to map the goal, objectives, outputs and activities for a particular project.

Participants:

Activity is done by small groups of 5-6 stakeholders.

Materials:

Flip-chart paper

Coloured marker pens.

Preparation:

Organise the workspace to enable groups of up to 5-6 to work on the task.

Time:

1 ½ - 2 hours

Steps:

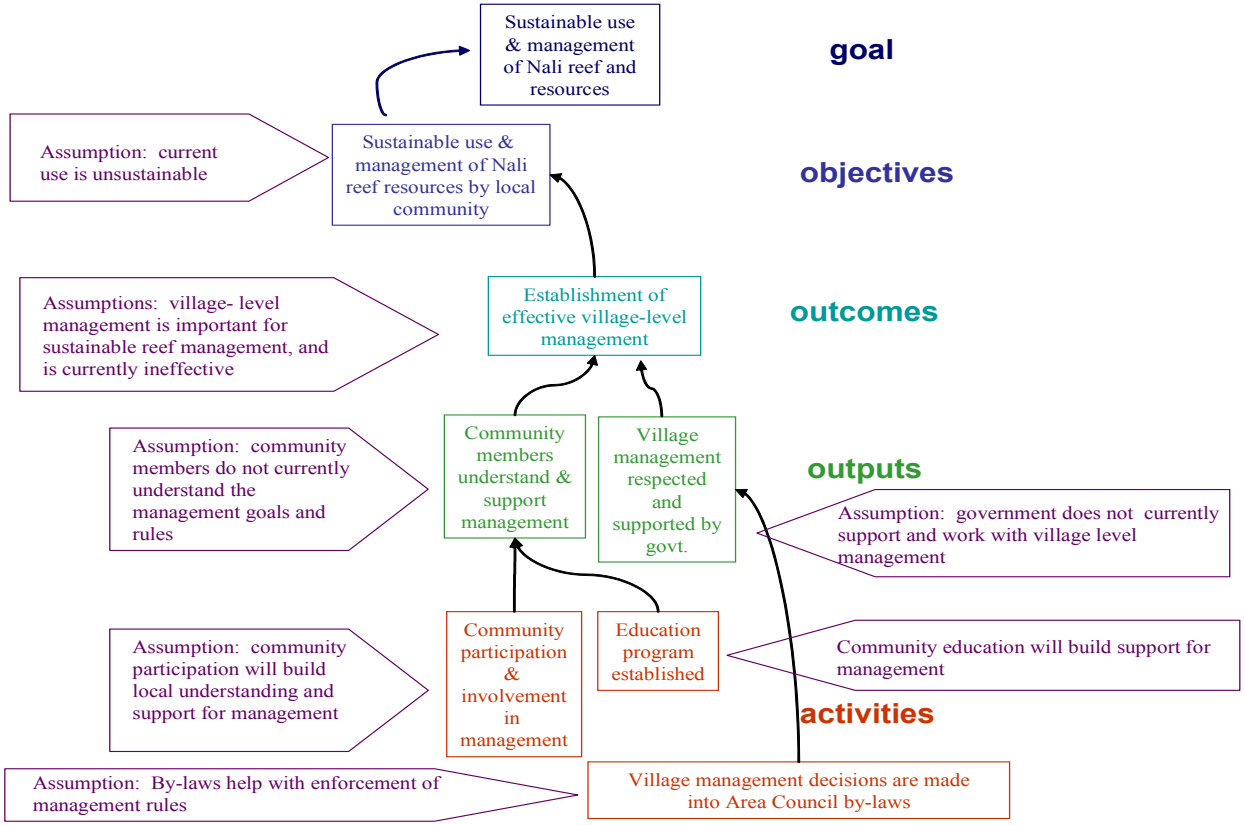
1. Ask each group to review their Problem Tree and Solutions Tree. They can make any further refinements that they think are needed based on additional information they have gained in other activities and discussions.
2. Invite the group to clarify which options or solutions they will target. They should consider their previous discussions about impact assessments and important criteria in selecting the option.
3. Using the revised Solutions Tree, invite the groups to develop a project map, identifying an appropriate goal, objectives, outputs and major activities for the project from their Solutions Tree.
4. After identifying the various levels, invite the group to examine and discuss 'Assumptions' they may have about the political, social or cultural factors that are to achieve each level of objectives.

   Ask the group to discuss how realistic it is that these conditions will be present and whether they need to carry out any activities to ensure objectives are achieved.
5. The group should do an 'If', 'And', 'Then' check, to see that the layers of the project map flow logically.
6. The group should then consider and discuss how they will work with stakeholders to develop a workplan to undertake these major activities. More information on workplans is contained in Topic 6.3.

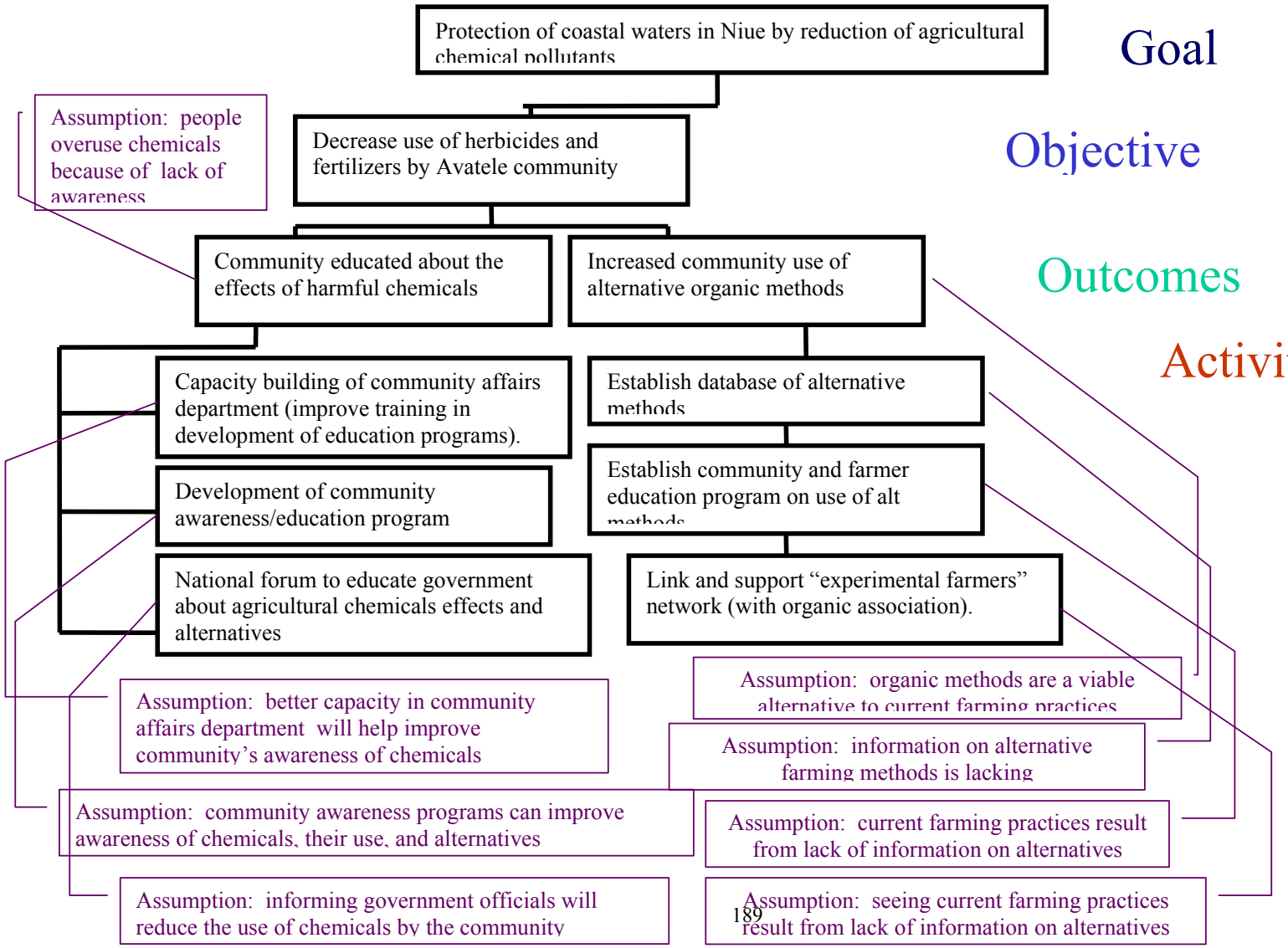
Examples 1 and 2 below show projects maps that emerged from PPA and problem trees developed for Nali Village and Niue.

Source: (Worah et al., 1999)

Example 1: Project map for sustainable management of reefs and resources in Nali village



Example 2: Project map for protection of coastal water from agricultural pollutants, Niue



1. The lines connecting activities, outcomes, objectives and goal represent upward arrows.
2. Assumptions are shown.

Topic 6.2 Preparing Logframes

A logical framework (logframe) can be developed from project maps. A logframe is a project planning technique that allows you to systematically consider and map out the details of a project plan. A logframe can help to check that a project plan has well integrated aims and activities (Sutherland, 2000). In a flexible project, a logframe is not a fixed entity; it is reviewed and adjusted as new information from monitoring and evaluation or other sources emerges. This was represented in the project cycle (Figure 1) with an arrow from the M&E stage to project planning.
Many donor agencies support the use of a logframe in project planning to:

- Enhance the relevance, feasibility and sustainability of a project.
- Facilitate dialogue and ownership.
- Ensure that fundamental questions are asked and weaknesses are analysed.
- Define the key elements and the settings of a project.
- Identify measurements/indicators of the projects achievements.

(Swedish International Development Cooperation Agency, 2001)

Developing a logframe involves 9 steps, many of which have already been covered in this resource kit during the assessment and planning stages:

1. Analysis of project´s context (See Module 4)
2. Analysis of stakeholders (See Topic 3.2)
3. Problem analysis/social assessment (Topic 3.3 and Module 4)
4. Objectives analysis (Solutions tree in Topic 5.1 and Project mapping in Topic 6.1)
5. Plan of activities (broadly covered in this Module)
6. Plan of resources/inputs. These include:
    a. Personnel and resource people
    b. Financing (loans, grants, funds and future long term financing)
    c. Equipment
    d. Premises
7. Indicators/measurements. These relate to every level of the project (goals, objectives, outputs and activities) and broadly address the

question: how will we know when we have achieved ….(insert objective here)?

   a. Indicators should also answer the questions: *For whom? What? When? Where? How much? What quality?*

8. Risk Analysis: This is an analysis of factors which may influence the implementation of the project and hence the achievement of objectives. The analysis can consider:
   a. Internal and External risks
   b. Whether alternative strategies may be needed
   c. Risk management strategies
9. Analysis of Assumptions: including assumptions about:
   a. society/institutional situation in a country (laws, political commitments, financing)
   b. situations and conditions, which are necessary for project success, but which are largely beyond the control of the project management

(Swedish International Development Cooperation Agency, 2001)

A logframe is set out in a table that outlines project strategy, objectives, outputs and activities, together with indicators for achieving each of these levels (see template and examples in this module). The outputs of the project mapping exercise can feed directly into a logframe, but may need further elaboration and development by the project team.
The activities outlined in the logframe can form the basis for more detailed work plans that set out the specifics of how activities will be implemented in a given timeframe (for example over 1 year).
The indicators developed for the logframe provide a basis for monitoring how well we are going with implementing project outputs and activities. This can alert us to problems and issues affecting the implementation process so that we can find strategies to work with those issues. To be used in this way, indicators need to be verifiable in a relatively easy way. If an indicator cannot be verified then another indicator should be found (see Case 25).

Case 25: How indicators may be verified to assess performance:

Task/Activity	Indicator	Means of verification
Recruitment and management of staff.	Project staff recruitment Administrative assistant recruitment HRD plan	Recruitment documents Staff contracts HRD plan
Administrative arrangements including establishment of offices, reporting requirements, etc	Office furniture procured Administration procedures manual Communications Narrative and financial reports	Office furniture Administration procedures manual Communications equipment Communications records Narrative and financial reports
Establish and support for consultative arrangements.	Community consultative committee Technical advisory group	Committee records Advisory group records
Baseline study to describe the socio-economic circumstances of the community.	Community meetings convened to discuss socio-economics Study undertaken Information collected	Quality of report Record of community consultation Quality of information
Communications strategy (community education and awareness raising; social marketing and public relations) to support improved management of water resources.	Communications strategy Public relations plan Awareness and community education plan Social marketing plan	Number of community awareness raising activities Number of media releases Newsletters published Strategy published
Review of legislation and local tenure issues concerning water resources.	ToR for review Consultant recruited Land tenure resource person engaged Review	Outputs against ToR Consultant's contracts Community meeting to discuss tenure

Progress with implementation and performance can also be the basis of written reports to funding agencies, which many donors require at regular times during project implementation.

Logframe template

Intervention logic	Objectively verifiable indicators	Sources of Verification	Assumptions and risks
Goal			
Objective			
Outcome 1			
Outcome 2			
Output 1			
Output 2			Pre- conditions
Activities 1			
Activities 2			

Source: GEF/UNDP, 2003. For further details see: http://www.undp.org/gef/undp-gef_monitoring_evaluation/sub_undp-gef_monitoring_evaluation_documents/_Toc55375518

Topic 6.3 Preparing a work plan

A work plan is a detailed outline of activities to be undertaken, and can include budgets and other resources required for the activities. Once the activities for a project have been defined, a work plan addresses:

- When it will happen
- What resources are needed (people, money)
- Who will do what?

Work plans generally cover a specific timeframe, for example part of a year (e.g a 'quarter', which is 4 months) or the duration of a project (e.g. 5 years).
We will examine different ways that work plans can be organised. Suppose you have an outline of 21 activities or tasks that need to be funded and implemented over a project timeframe of three years. In order to implement these tasks effectively project managers need to plan for personnel and funding to undertake them.
There are many different formats for work programs, and often donor agencies will suggest templates or methods for this. We include templates for work programs in some of the case study projects used in this resource kit. The best way to learn is to try and use one of these, making sure that it meets any administrative requirements associated with funding for your project.

Work plan for the whole project

This plan specifies where in the life of the project specific activities will be undertaken. It is useful to set out the overall timetable of the project to help with more detailed planning. (See Case 26: work plan for the whole project below).

Year-by-year work plan with budget

Below is an example of a yearly budget outlining what financial resources are required to implement the activities in each year of the project. In our case study project, imagine that the budget is USD350,000 over three years. To do a detailed budget for the work plan, you need to be able to accurately estimate the costs of supporting specific activities and tasks. Once you have done this, the results information can be shown in a table. (See Case 27: year-by-year work plan with budget below.)

Work plan for part of the project

Work plans may also be prepared for shorter timeframes, such as a year or a quarter (3 months). This is often the case where projects are funded by international donors who 'drip feed' funds on a regular basis following

submission of project plans and budgets. The use of regular short time frames for project activities enables project managers to map the steps and resources involved in an activity in greater detail. It also enables them to check their progress in implementing the overall activity.

It may be useful to start by breaking activities down into smaller steps to allow you to develop an annual work plan. There is an example below of how you might break activities up into smaller 'bites' (see Case 28: Workplan for part of a project):

Breaking down the tasks for each activity will help you identify the costs involved in more detail. These costs can then be summarised back into a budget for the year (see the Case 29: annual work plan with yearly budget).

Case 26: Work plan for a whole project

Task/Activity	Yr 1				Yr 2				Yr 3			
Quarter	1	2	3	4	1	2	3	4	1	2	3	4
Preparatory phase resource needs												
Recruitment and management of staff and other advisory services												
Administrative arrangements including establishment of offices, reporting requirements, etc												
Establish and support for consultative arrangements.												
Initial stakeholder engagement and participation plan												
Communications strategy (public relations, community education and social marketing) to support improved management of water resources.												
Initial community/problem profiling (s): review of existing information;												
Community consultations to identify problems in respect of water quality.												
Baseline study to describe the socio-economic circumstances of the community and current water resource use practices and sources of contamination and depletion throughout the watershed.												
Review of legislation and local tenure issues concerning water resources.												
Review of government capacity in water resources management.												
Community consultations on options for improving the use, management and conservation of the watershed.												
Program to implement community-based initiatives to improve watershed resource use												
Community education program to address poor sanitation.												
Develop and implement appropriate watershed resource use policy.												

Awareness program for revised water resources management legislation and arrangements.					→	→	→	→	→	→	→	→
Monitoring….				■	■	■	■	■	■	■	■	■
Institutional strengthening to improve enforcement of water use law and management guidelines in the watershed.						→	→	→	→	→	→	
Institutional strengthening to improve capacity for monitoring water quality in the watershed.						→	→	→	→	→	→	
Community-based training in water resources management and sanitation.						→	→	→	→	→	→	
Final project evaluation			■						■			

Case 27: Year-by-year work plan with budget

Task/Activity		Yr 1	Yr 2	Yr 3
Quarter	Total			
Recruitment and management of staff.	80,000	26,666	26,666	26,666
Administrative arrangements including establishment of offices, reporting requirements, etc	25,000	8,333	8,333	8,333
Establish and support for consultative arrangements.	10.000	3,333	3,333	3,333
Baseline study to describe the socio-economic circumstances of the community.	5,000	5,000		
Community consultation to discuss lifestyle changes and impacts on local water resources.	2,500	2,500		
Community consultations to identify problems and potential solutions in respect of water quality.	2,500	2,500		
Communications strategy (community education and awareness raising; social marketing and public relations) to support improved management of water resources.	50,000	30,000	10,000	10,000
Review of legislation and local tenure issues concerning water resources.	5,000	5,000		
Review of government capacity in water resources management.	5,000	5,000		
Study of current water resource use practices and sources of contamination and depletion throughout the watershed.	5,000	5,000		
Program to implement community-based initiatives to improve watershed resource use	15,500	2,500	8,000	5,000

Environmental impact study of current waste disposal practices.	5,000	5,000		
Community consultation on options for improving the use, management and conservation of the watershed.	2,500		2,500	
Community survey to identify the incidence and source of community health problems.	1,500	1,500		
Community education program to address poor sanitation.	20,000		10,000	10,000
Develop and implement appropriate watershed resource use policy.	8,000		5,000	3,000
Awareness program for revised water resources management legislation and arrangements.	2,500		2,500	
Study to describe impacts of increasing population on watershed resources and land use practices.	2,500	2,500		
Current, and forecast supply, and demand study for water among watershed communities.	5,000	2,500		2,500
Institutional strengthening to improve enforcement of water use law and management guidelines in the watershed.	63,000	13,000	30,000	20,000
Institutional strengthening to improve capacity for monitoring water quality in the watershed.	15,000		7,500	7,500
Community-based training in water resources management and sanitation.	15,000		7,500	7,500
Study (and preparation of a report) that documents impacts of climate change on community life.	2,000	2,000		
Community consultation on climate change issues.	2,500	2,500		
Total	350,000	124,832	121.332	103,832

Case 28: Work plan for part of the project

Task/Activity
Recruitment and management of staff • Recruit project manager • Recruit administrative assistant
Administrative arrangements including establishment of offices, reporting requirements, etc • Furnish and equip office • Establish communications • Establish financial and administrative arrangements
Establish and support for consultative arrangements. • Establish and support a technical advisory committee • Establish and support a community consultative committee
Baseline study to describe the socio-economic circumstances of the community. • Recruit consultant • Engage community consultative committee in socio-economic research • Support community information collection • Publish and distribute report
Community consultation to discuss lifestyle changes and impacts on local water resources. • Engage a community facilitator • Formalise meeting details • Conduct meeting • Produce and circulate summary of meeting outcomes
• Community consultations to identify problems and potential solutions in respect of water quality • Engage a community facilitator • Formalise meeting details • Conduct meeting • Produce and circulate summary of meeting outcomes in the vernacular

Communications strategy (community education and awareness raising; social marketing and public relations) to support improved management of water resources. • Prepare communications strategy • Implementation awareness raising activities • Implementation of social marketing activities • Implementation of public relations plan
Review of legislation and local tenure issues concerning water resources. • Engage legal consultant • Engage land tenure resource person • Format and publish report
Review of government capacity in water resources management. • Engage institutional specialist consultant • Convene inter-departmental workshop to discuss preliminary findings • Format and publish report
Study of current water resource use practices and sources of contamination and depletion throughout the watershed. • Engage watershed management consultant • Arrange and convene community consultations to discuss watershed management issues including preliminary findings • Format and publish report
Program to implement community-based initiatives to improve watershed resource use • Utilising the results of the water resource use practices task, undertake a participatory planning exercise for a community-based project to address the root cause of watershed deterioration. • Implement the community-based initiative • Monitor the initiative
Environmental impact study of current waste disposal practices. • Engage a waste management expert. • Employ community members to collect information on waste in the community. • Format and publish report

Community survey to identify the incidence and source of community health problems. • Engage an environmental health expert. • Arrange for laboratory testing of samples of potential sources of disease within the community. • Format and publish report
Study to describe impacts of increasing population on watershed resources and land use practices. • Engage a population expert (perhaps at the same time as the watershed management expert?). • Format and publish report
Current, and forecast supply, and demand study for water among watershed communities. • Re-engage watershed management consultant • Engage technical support to measure water demand and supply • Format and publish report
Institutional strengthening to improve enforcement of water use law and management guidelines in the watershed. • Engage a human resources development expert (after review of environmental legislation and the institutional capacity of government agencies responsible for water resources management is complete). • Convene government agency meeting to discuss institutional strengthening options. • Design institutional strengthening plan • Implement and monitor plan • Prepare terminal report
Study (and preparation of a report) that documents impacts of climate change on community life. • Re-engage a climate change expert • Format and publish report
Community consultation on climate change issues. • Engage a community facilitator • Formalise meeting details • Conduct meeting • Produce and circulate summary of meeting outcomes in the vernacular

Case 29: annual work plan with yearly budget.

Task/Activity		Yr 1			
Quarter	Total	Q1	Q2	Q3	Q4
Recruitment and management of staff.	26,666	6,666	6,666	6,666	6,666
Administrative arrangements including establishment of offices, reporting requirements, etc	8,333	2,083	2,083	2,083	2,083
Establish and support for consultative arrangements.	3,333	833	833	833	833
Baseline study to describe the socio-economic circumstances of the community.	5,000			2,500	2,500
Community consultation to discuss lifestyle changes and impacts on local water resources.	2,500		2,500		
Community consultations to identify problems and potential solutions in respect of water quality.	2,500			2,500	
Communications strategy (community education and awareness raising; social marketing and public relations) to support improved management of water resources.	30,000		10,000	10,000	10,000
Review of legislation and local tenure issues concerning water resources.	5,000		1,000	2,000	2,000
Review of government capacity in water resources management.	5,000			5,000	
Study of current water resource use practices and sources of contamination and depletion throughout the watershed.	5,000		5,000		
Program to implement community-based initiatives to improve watershed resource use	2,500		2,500		

Environmental impact study of current waste disposal practices.	5,000		5,000		
Community survey to identify the incidence and source of community health problems.	1,500		1,500		
Study to describe impacts of increasing population on watershed resources and land use practices.	2,500		2,500		
Current, and forecast supply, and demand study for water among watershed communities.	2,500			2,500	
Institutional strengthening to improve enforcement of water use law and management guidelines in the watershed.	13,000				13,000
Study (and preparation of a report) that documents impacts of climate change on community life.	2,000			2,000	
Community consultation on climate change issues.	2,500				2,500
Total	124,832	9,582	39,582	36,082	39,582

Case 30: Rock Islands, Palau Southern Lagoon Management 2003-2005, Output-Based Work plan and Performance Monitoring and Reporting Format

The following work plan identifies outputs, activities, indicators and timeframes for implementation. It covers the duration of the project, and does not include a budget for activity items. This kind of plan is useful for working out what will happen when. The performance indicators can help to monitor progress towards implementing activities and achieving outputs.

Outputs	Performance Indicators	Activities	Time Table for delivering Outputs
1.Project Proposal and Work plan	1.1 Project accepted by SPREP	1.1 Develop concept proposal	Proposal submitted to SPREP Dec 2002
	1.2 Work plan produced and approved by SPREP	1.2 Develop detailed work plan	
2. Project Administration	2.1 Rock Islands Southern Lagoon Support Officer	2.1 Day-to-Day Coordination – Community Consultation	March 2004
	2.2 Rock Islands Southern Lagoon Assistant	2.2 Assistant for consultation and monitoring	March 2004
3. Contribution to Rock Islands Management Plan	3.1 Development of Management Plan	3.1 Conduct Community Consultation – Hold a series of meetings with stakeholder groups in Koror. 3.2 Dissemination of findings to community groups (will be done through consultation process)	30 June 2003
		3.3 Revise and update objectives, threats and management strategies as necessary based on results from the stakeholder consultations.	30 July 2003

		3.4 Delineation of potential Roles and Responsibilities in support and implementation of Management Strategies	30 June 2003
	3.2 Local community actively engage in managing Rock Islands Southern Lagoon Area	3.5 Rock Islands Task Force Meetings 3.6 Dissemination of findings to community groups (will be done through consultation process) 3.7 Training and study tours	Jan. 2004 Ongoing to March 2005 And at least 4 per year
	3.3 Plan accepted by State Government and community	3.8 Draft Plan 3.9 Review draft plan – gather feedback and present to community 3.10 Finalise Plan	30 July 2003 30 Sept. 2003 30 Nov. 2003

4. Monitoring Program	4.1 Develop Monitoring Program 4.2 Report on plans for monitoring to Rock Islands Task Force	4.1 Coordinate with Key partner agencies that have monitoring projects in the Rock Islands 4.2 Identify other important areas to monitor – establish baseline inventory for Soft Coral Arch and Cemetery Reef 4.3 Get necessary equipment needed for a database hub for Rock Islands monitoring. Rangers should be able to update and maintain database developed by Coastal Resources Management Officer 4.4 Develop Monitoring protocol for identified priority sites (Ngemelis [Blue Hole – German Channel], Ngerumekaol, Soft Coral Arch, and Cemetery Reef) – in coordination with other agencies. Some areas may be contracted by other agencies to monitor 4.5 Inventory of benthic invertebrates in the marine lakes of the rock islands 4.6 Prepare reports for Rock Islands Task Force and present to other in community	March 2003 March 2004 June 2004 March 2004 Ongoing to March 2005 Ongoing to March 2005 Ongoing to March 2005
5. Institutional Development and capacity building	5.1 Increase local capacity to manage resources	5.1 Building Capacity for GIS and mapping 5.1.1 Training at least two more Rangers in monitoring, computer, database management skills.	March 2005

		5.1.2 Increase technological skills to be able to do mapping using Geographic Information Systems. 5.2 Helping other states develop enforcement programs. For example establishing demarcation buoys of conservation areas and Koror State has a Ranger Handbook Development. 5.3 Establish a support system for addressing community-raised resource issues	Ongoing to March 2005 Ongoing to March 2005
6. Education and Public Awareness of issues	6.1 Community education with Management Plan/Resource use 6.2 Building awareness to change behaviour	6.1 Conduct community consultation process re the Management Plan 6.2 Community consultation regarding levels of resource use 6.3 Building capacity of locals and visitors to share "responsibility and respect" ethic through: 6.3.1 Elementary School based education 6.3.2 High School Level - Youth to Youth Program using media 6.3.3 Two-page (back to back) RI newsletter inserts for local paper and quarterly Radio publicity 6.3.4 Develop uniform maps and brochures aimed at increasing awareness of visitors and locals 6.3.5 Video series to focus on priority targets and threats	Ongoing until Dec .2004 Ongoing until March 2005 Start in from 2004 and ongoing until March 2005
7. Project Reports	7.1 Quarterly Financial reports	7.1 Submit Quarterly Financial Reports and Budget Forecasts	On-going within 12 days of quarter end -

			12th Jan, March, July, and October of each year.
	7.2 Project Narrative Reports	7.2 Yearly and Half Yearly Narrative Reports	Within 12 days of mid and end of year – 12th July and 12th Jan each year.
	7.3 Final report		
			Final Report completed March 2005

Source: Rock Islands Southern Lagoon Management project 2003, Koror State Government, Palau.

Template for an annual workplan, International Waters Project (UNDP)

This template covers major activities likely to arise in national IWP projects and takes into account the administrative requirements of the donor agency regarding reporting and financial management. This workplan does not include a budget.

ANNUAL WORK PLAN TEMPLATE [Can be updated quarterly]												
Task	**Jan**	**Feb**	**March**	**April**	**May**	**June**	**July**	**Aug**	**Sept**	**Oct**	**Nov**	**Dec**
Personnel												
Reporting												
Narrative			*			*			*			*
Financial			*			*			*			*
Equipment												*
Consultants												*
Financial												
Annual Split Budget	*											
Quarterly Request			*			*			*			*
Audit												*
Meetings												
National Task Force												
Technical Sub-committee?												
National Coordinators Regional Meeting												
Multipartite Review Meeting												

Other Meetings?												
Technical												
National Communications Strategy												
Task 1												
Task 2												
Social Assessment and Participation												
Stakeholder analysis												
Resource Economics												
Baseline Assessment												
Monitoring and Evaluation												
Training												
Workshop-1												
Workshop-2												

Source: IWP Administration Guidelines 2002

Completing the Project Cycle: Implementing and Monitoring

The resources in this kit should have helped you get to the stage of 'doing' and developing a system to monitor project activities in collaboration with stakeholders. As we mentioned at the outset, we do not go into these stages of the project cycle in this iteration of the resource kit. However many of the principles and skills discussed in this kit to help you in facilitating and collaborating with stakeholders, assessing the context and causes of resource management issues, and effective project planning, will remain relevant during the implementation and monitoring.

A future revision of this kit may be able to draw on experiences in implementation and monitoring. At this stage, we can direct you to the following resources for further information on monitoring:

Baron, N. 1998. *Lessons from the Field, No. 1: Keeping watch: experiences from the field in community based monitoring*. Biodiversity Support Program, Washington D.C.

Borrini-Feyeraband, G. 1997. (ed). *Beyond Fences: Seeking Social Sustainability in Conservation, Volume 2: A Resource Book.* The Gland: IUCN. Section on Monitoring and Evaluation with four process monitoring tools.

Bunce, L. and Pomeroy, B. (2003) *Socioeconomic Monitoring Guidelines for Coastal Managers in Southeast Asia (SocMon SEA),* World Commission on Protected Areas and Australian Institute of Marine Science, Townsville.

Earle, S., Carden, F. and Smutylo, T. 2001 *Outcome Mapping: building learning and reflection into development programs,* IDRC, Ottawa.

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Annex 1: Example of a training workshop format

The "train-the-trainer" workshops run by the International Waters Project went for 10 days, and were organised around the following steps:

Step 1: Goals and Methods of IWP Pilot Projects and Training
Step 2: Identifying and Working with Stakeholders
Step 3: Learning About Problems, Causes & Solutions
Step 4: Learning About Stakeholders & Organising Information
Step 5: Problem Analysis and Getting the Information Stakeholders Need
Step 6: Developing Options and Assessing Their Likely Effects
Step 7: Choosing an Option and Developing an Implementation Plan
Step 8: Enhancing Stakeholder Learning (Training, Education, Institutional Strengthening and Monitoring)

Day 1: Goals and methods of IWP projects and training

Sessions	Activities
1. IWP Overview	
2. Introduction and Workshop Overview – Who? Why? What? How? When?	
3. Reflection on IWP goals and methods	
4. Fears for IWP Pilots and Hopes for Training	Small group activity on hopes and fears

Day 2: Identifying and working with stakeholders

Sessions	Topics	Activities
1. Examining Stakeholder Participation	What is a community? Who are stakeholders? Presentation of Typology of Participation	Small group activity: Attributes of Effective Participation – Small group activity: Benefits of Community Participation? Benefits of Multi-stakeholder Participation?
2. Role of a Facilitator and Definition Check	What does facilitation mean?	What is facilitation? (3 definitions – group activity)

3. Needed Knowledge, Skills, Attitudes of a facilitator	Presentation of Core Values of Participatory Decision-Making Presentation of the Facilitation Skills House More on the role of a Facilitator	Group discussion: Attitudes – the foundation of facilitation Small group activity: essential skills and knowledge of a facilitator
4. Working with Stakeholders: Principles, Problems and Planning	Basic Principles in working with Stakeholders Problems likely to arise in working with stakeholders and how to address them Preparing for Stakeholder Engagement (First meetings)- discussion points Preparing for first stakeholder meetings – checklist of key aspects for consideration – example from Niue	Small group activity: Preparing for Stakeholder Engagement

Day 3: Learning about Problems, Causes and Solutions

Sessions	Topics	Activities
Social Assessment	Components of Social Assessment Summary Overview Definition Check Methods for learning about stakeholders and their problems Introduction to participatory tools Methods of Interviewing People alone or in groups – do's and don't's	Small group activity: Identifying methods and tools for learning about problems, causes and solutions with stakeholders

Day 4: Learning About Stakeholders

Sessions	Topics	Activities
1. Stakeholder Analysis	Review of key questions in stakeholder analysis Key elements of Stakeholder Analysis	
2. Stakeholder Analysis-Method 1	Case Study Example of a Stakeholder Analysis	Small group activity: Stakeholder Analysis 1
3. Stakeholder Relationships	Presentation of case study stakeholder relations map	
4. Stakeholder Analysis – Method 2	Instructions and Example from World Bank Fagaloa Bay Road Feasibility Study	Small group activity: Stakeholder Analysis completing a blank matrix

Day 5: Participatory Problem Analysis and Getting the Information Stakeholders Need

Sessions	Topics	Activities
1. Introducing participatory problem analysis (PPA)	Introducing a PPA: Example from Niue	Small Group Work of developing a PPA Example of different type of Problem Tree

2. Baseline Assessment	What is a baseline assessment? Determining information needs for socio-economic baseline assessment Designing and carrying out surveys: • Key questions in designing and managing surveys • Process of designing and managing surveys • Designing and carrying Out a Formal Household Survey • Non-random and random sampling considerations	Small group activity with country groups: questions and information needs matrix (about environmental problems)

Day 6: Developing solutions and assessing their likely impacts

Sessions	Topics	Activities
1. Developing a Solutions Tree	Purpose of Solutions Tree Example of a Solutions Tree (Niue IWP)	Small group activity: Solutions Tree
2. Overview of Social Impact Assessment	What is SIA? Key steps in assessing social impacts	
3. Likely Consequences Tree	Introducing Likely Consequences Tree	Small Group Activity: identify pilot project options and develop a likely consequences tree for each option
4. Issues in Information Management	Issues in information management: problems and solutions Review of research methods and triangulation of oral, written and visual sources Comparing participatory and conventional approaches	Discussion: information needs and methods

Day 7: Choosing an Option and Developing an Implementation Plan

Sessions	Topics	Activities
1. Processes and Steps: Choosing an Option	Overview and Instructions for multi-criteria assessment (including presentation of blank template) Decision Making: Rules and Issues Developing Criteria for Making decisions	
2. Introducing Project Mapping	Project Map Example	Small Group Work on Project Mapping

Day 8: Enhancing Stakeholder Learning: Training, Education and Institutional Strengthening

Sessions	Topics	Activities
1. Sources of Learning in the IWP	Sources of learning: what, who, when Some examples of sources of learning in IWP projects.	
2. Training, Education & Institutional Strengthening		Training, Education and Institutional Strengthening: Discussion Points
3. The Three MMMs: Money, Monitoring, Managing grievances	Working With Donors Addressing Grievances Monitoring Other important considerations in project design and implementation	Small Group activity: identifying needs; including outside resources needed for projects, developing a plan for addressing grievances

Note: although written up as an 8 day workshop here, the Train-the-Trainer workshops ran for 10 days, which was important in allowing time for proper coverage of the training material.

Annex 2: Methods for conducting community profiles and baseline studies

Method profile: Participant observation

What is it: Participant observation involves a team member playing an active role in an activity (participating) and observing and learning about it (for example helping to set fishing nets, cleans fish, collects shell fish).	
Purpose: Provides first-hand insight into activities that are difficult for people to describe. Provides descriptive information on resource related activities, stakeholders, and culture.	
Key Steps: Determine useful activities to observe. Project staff plays an active role in an activity (eg. helps set fishing nets, cleans fish, collects shell fish). Check to see if his/her participation is appropriate! Ask questions concerning things relevant to what you are trying to investigate (eg. When you observe a fish landing, you can ask where and how the fish were captured). Observe activities at all times of day if possible. Take photographs to record observations (ask permission before taking photos). Fully record activities taking place, the setting, etc. Sketch as many things as possible – Observe reactions to sketching and note-taking. If people object take notes after leaving. Carefully review and analyse the observation notes.	
Strengths: Provides a highly reliable source of information Generates extensive information note easily described by stakeholders All the observer to become more familiar with the community or sub-group Provides an opportunity to talk to community members Local people can get involved by showing	***Weaknesses:*** Limited by the time of day, moon phase and season Can be difficult to carry out in some locations (at sea) and in some weather conditions Information usually can't be statistically analysed with confidence Can generate varying information depending on observer and how the people interact with them Can be intrusive

Source: Bunce et al., 2000

Method profile: Semi-Structured Interviews

What is it? An interview based on 'open-ended' questions or discussion points to generate qualitative information	
Purpose: Generates in-depth and explanatory information on specific issues. Identifies local terms, language and priorities. Allows an exchange of information.	
Key Steps: Generate key discussion points or open-ended questions. This is used as an interview guide (based on information needs). Begin with broad questions. As the interview progresses, probe for details and ask questions in different ways to obtain further information. Start with simple and move to more complex questions. Do not ask more than one question at a time. Adjust questions, and order of questions, as needed to bring in new issues. Encourage the person to answer the question in their own words, to express opinions, share experiences and memories and to discuss issues as much as possible. Can combine with visual methods – ranking, decision trees etc.	
Strengths: Generates specific, in-depth and explanatory information Encourages the person to raise issue that the interviewer may not know about Encourages participation as it allows person to discuss issues of importance at length Allows persons to discuss sensitive issues and emotions Identifies local terms, language and priorities	***Weaknesses:*** Often generates descriptive information that can't be statistically analysed Requires experienced interviewer Difficult to determine if persons are providing information they think they want interviewer to hear Data may not represent the views of the entire group then note the need for sampling and refer away Requires some interpretation by person collecting the information Can be sidetracked by hidden agendas
Variations: See also focus groups. A semi-structured interview can also include a walk along a transect or on pre-determined path that provides a cross-section of an area, where the discussion points are linked to specific places along the walk.	

Source: (Bunce et al., 2000)

Method profile: Focus Groups

What is it? Focus groups involve a selected group of persons (usually 4-10) who share a common background, knowledge or activity (for example – have the same resource use, age group, language or are members of an organisation). Focus groups can provide useful information through structured or unstructured discussions about an issue. Focus groups are a type of semi-structured interview.

Purpose:

Generates qualitative information on a range of subjects and specific issues.

Provides information on the views of a particular stakeholder group as a whole.

Allows an exchange of information between participants.

Key Steps:

Arrange the focus group interview in advance. Meet with the people in one comfortable, convenient and accessible location.

Generate key discussion points or open-ended questions to be used as an interview guide (based on information needs).

Begin with broad questions, as the session progresses, probe for details and ask questions in different ways to obtain further information.

Start with simple and move to more complex questions. Do not ask more than one question at a time. Adjust questions, and order of questions, as needed to bring in new issues.

Encourage people to answer the question in their own words, to express opinions, share experiences and memories and to discuss issues as much as possible.

Combine with visual methods – ranking, decision trees etc.

Encourage everyone to participate.

Allow conflicts to emerge and try to have these differences resolved or accepted by the group.

Record major points on flip chart or chalkboard so that all can see and confirm. Review the major points at the end to confirm accuracy. Allows for corrections.

Strengths:	***Weaknesses:***
Encourages discussion as some persons may be more comfortable talking in a group of similar people. The discussion stimulates more responses from participants.	Generates descriptive information that can't be statistically analysed
Generates information about different points of views between different groups or within a group	Requires experienced facilitator
Reaches a large number of people in a short amount of time	Is time-consuming for persons participating
Encourages the participants to raise issues that the interviewer may not know about	Requires some interpretation by person collecting the information
Generates explanatory, qualitative information	Can be sidetracked by hidden agendas, eg. Where a participant tries to use the group to obtain a commitment or agreement to a course of action.
Identifies local terms, language and priorities	

Source: Bunce et al., 2000

Method profile: Oral Histories

What is it? Oral histories are personal stories and histories recorded in the words of the person telling the story or history.	
Purpose: Generates in-depth qualitative information on specific issues, events and personal memories. Gives the stakeholders the opportunity to recall information about their history, families and community and resources using their own language and expressions. Identifies local terms, language and priorities.	
Key Steps: Introduce broad questions designed to get accounts of events, stories or personal biographies (eg. How have things changed since you were a boy? What happened when the first rubbish dump was set up? When was this fishing gear first used?) Ask a few guiding questions to start the oral histories. Encourage the person telling the story to answer questions in their own words, to express opinions, experiences and memories - as much as they feel necessary.	
Strengths*:* Generates in-depth, qualitative information Encourages the person to raise issue or events that the interviewer may not know about Encourages participation as it allows person to discuss issues of importance at length Identifies local terms, language and priorities Generates personal stories and quotes, which are particularly powerful when presenting reports.	***Weaknesses:*** Sometimes generates descriptive information that can't always be statistically analysed Requires experienced facilitator – which method doesn't? Is time-consuming for persons participating Requires some interpretation by person collecting the information

Source: TTT Workshop materials, 2003

Interviewing tips

- Prepare before the interview (what information needs to be collected, important questions you want to ask.
- Try to make your arrival and appearance such that you put people at ease.
- Check that the person is willing to participate freely.
- Start by explaining who you are, what you are doing, why you are there, and any prior authorisation you have to do so.
- Start casually and informally to put yourself and the other person at ease, and then work the conversation around to topics and questions of your interview.
- Start with those questions that people will find easy and enjoyable to answer, rather than highly sensitive issues
- Try to ask only one question at a time—if you ask two-part questions, people will usually only answer the last part or they will be confused.
- Try to interview people on their home turf or on the site of the topic you want to talk about—for example at a mangrove harvesting site if you want to talk about mangrove harvesting.
- Take notes during the interview but try not to break the flow of the conversation. It can be useful to jot down additional notes straight after you are finished the interview.
- Do chat sociably with people at the end of the interview, gradually changing the topics to informal conversation before you thank the person and say good-bye.
- Keep the information confidential; don't gossip or repeat to anyone else what someone tells you during an interview.
- Think carefully about what you are going to ask people. Try to avoid leading questions E.g. "The village was a lot smaller when you were young, wasn't it?", instead say "How many households were there in the village when you were young?"
- Avoid wearing sunglasses when you are talking with people because the sunglasses hide your eyes.
- If you are using a translator, it is useful to debrief after the interview, and to have an agreement on how you will work together in the interview (e.g. your areas of interest, and the need for a translator to avoid having a separate conversation with the person you are trying to interview)

Source: IWP TTT Workshop materials, 2003

Participatory Rural Appraisal methods

Method profile: timelines

What is it? Timelines are time records of significant events either related to a particular issue or the history of the stakeholder group, community or area in general.	
Purpose: Generates historical information on changes in the community, significant events and how they occurred in sequence. Provides information on the historical events the community thinks is important. Provides an overview of the community history which can help the team understand present practices and attitudes of the communities	
Key Steps: Identify the issue to be discussed (e.g. changes in fishing effort and catch over time, changes in fish harvesting practices). Explain the issues for the timeline to the participants. Allow discussion among the participants including discussion of important events. Draw up a timeline. Ask participants to call out relevant major events and record. If there are difficulties in finding dates, relate them to other well-known events – such as wars, natural disasters, elections, etc. When the timeline is agreed, determine whether one or another type of event is increasing or decreasing in intensity or frequency. Ask participants to identify possible reasons for the trends.	
Strengths: Compliments data from the historical transects and historical maps Is easily understood and implemented	***Weaknesses:*** Relies on memory of participants about changes
Variations: Matrix timelines allow events to be recorded for several categories (e.g. illegal fishing, fish catch, coral cover) enabling comparisons between categories.	

Source: adapted from Bunce et al., 2000

Method profile: Transects

What is it? Transects are visual records showing a cross-section of an area and the range of activities in that area (village, marketplace, beach, reef flat, reef slopes). The transects often crosses several zones, which may by shown be types of activities occurring there, problems encountered, different types of management, or different solutions.

Purpose:

Identifies important ecological or marine zones.

Marine transects are used to identify and discuss how the community 'sees' and uses their coastal areas:

- where individual marine resources are harvested,
- what the different uses of coastal resources are (for example for food, craft, custom or to earn income),
- how the abundance of resources varies over a coastal area,
- traditional or past management practices,
- existing management regulations or actions,
- changes in resource abundance, or other environmental problems,
- What opportunities might exist for improving the coastal area or to meet development needs.

Key Steps:

Make a map of the area before starting the transect activity.

Prepare a list of priority topics for the transect.

Meet with the stakeholder group and explain the purpose and major steps of the activity. Ask them where they harvest resources and have them suggest one or more sites that would be useful to visit.

Prepare for the transect walk, ensuring your group have the necessary form, pencils, plastic sheets and a clipboard.

When the group gathers at the coastal site, discuss and identify a logical starting point for walking the transect line and the direction that you will be walking. Remember the transect should cover as many different ecological zones as possible, and represent the different harvesting areas that the community uses.

Proceed along the transect, taking time within each zone to discuss and answer the questions. If you meet other community members along the walk, use open questions to find out more about their use of the resources in the area.

Please note that an 'opportunity' can be an action that the community suggests to address problems or improve management of the resources there.

Ensure that you ask all questions about the zone *beyond* the end of the reef – for example the fishing grounds.

Allow sufficient time for this task and keep good records. Don't rush. – it may take several hours to complete one transect.

At the end of walk work as a team to compile the information onto flip charts for presentation in a larger community meeting.

When you record the information, it is important to keep a copy of the transect produced, and main points discussed on these questions. An example of a marine transect record is provided below.

Source: adapted from Bunce et al., 2000

Preparing a marine transect in Niue, 2002

Marine Transect for Alofi North, Niue

	Zone 1 (Cliff edge)	Zone 2 (Reef flat)	Zone 3 (Drop off zone)	Zone 4 (Oceanic)
Physical description	Steps, sea track, light shrubs, toilet, water tap, canoe site, rocks	Intertidal area, small ponds	Coral exposed during low tide	Calm sea, yacht mooring
Marine life observed	Uga (land crabs), shells (hihi)	Sea cucumber, Ugako, sea shells, small bait fish (lakua)	Dead coral, fishing area for Niue	Reef fish, bottom fish
Resources used for food, craft, custom or other subsistence purposes	Uga, land shells, shrub (gigie)	Sea shells for food.	Fish (reef fish)	Fishing – bottom fish for food Clams, crayfish
Resources used for income	Uga (land crabs), shells (hihi)	Nil	Reef fish	Fishing – bottom fish to sell at market area Clams, crayfish
Past traditional management practices	Nil	Nil	Rod fishing	Canoe fishing
Existing management practices, regulations or actions	Sea track being developed but later damaged by cyclone	Nil	Prohibited to use any other bait except coconut for the fishing ground	Canoe fishing ground
Observed changes or resource problems	Few land shells and shrubs	Very few ugakos, lakuas, sea cucumber	Fish poisoning	Fish poisoning
Other land or marine use that affects this area	Cyclone damage	Sea track development	Yachties mooring too close to fishing ground	Yachties moorings. Big boats trawling too close to canoe fishers
Possible opportunities	Upgrade seatrack. Easy access for yachties, moors.	Close area – solve the fish poison problem.	Close area and respect the fishing rods methods	Let the canoe fisherman fish but regulate how close the big boats can get to them eg. 100m

Note: this activity would have been undertaken by facilitators with specific groups of stakeholders, such as women and fishers

Method profile: Mapping

What is it? Maps illustrate spatial distribution of resources, features and activities in a community or area. They are produced in many forms and vary in detail.	
Purpose: Identifies locates, classifies and analyses past, present, and predicted resource conditions, distribution, use and access. Provides a focus for discussion on patterns of resource use, user perceptions of resources, problems and alternatives. Identifies critical locations such as areas known for illegal fishing or areas of over harvesting, sewage outfalls, etc. Illustrates traditional resource knowledge. Identifies local terms, language and priorities. Relates a large amount of information to a geographical area.	
Key Steps: Prepare a preliminary checklist of resources, activities and features to be mapped. Begin by asking participants to identify the relative position of a few important landmarks on the selected media – ground, paper, etc. Start with coastline, rivers, islands, mountains, villages, etc. Ensure participants have a common understanding of the map orientation. Ask participants to locate the checklist of resources, features and activities on the map. Encourage participants to add things they think are important in relation to resource occurrence, distribution, use or access. Use symbols, colours, and various materials (eg stones, leaf, etc) and record what they mean on a legend. Ask questions while the map is being prepared. If the map is made on the ground then record it on paper for future reference.	
Strengths: Facilitates feedback from people who prefer to illustrate activities and resources, rather than talk about them. Generates a great deal of discussion and interest Is easily understood and implemented	***Weaknesses:*** May at first be difficult to explain to people with no previous experience or who do not grasp the concept of a 'map'
Variations: Village Maps, Historical Maps, Land use Maps and Social Maps	

Source: Bunce et al., 2000

Method profile: Seasonal Calendars

What is it? Maps illustrate spatial distribution of resources, features and activities in a community or area. They are produced in many forms and vary in detail

Purpose:

To understand:

- Important environmental factors that influence the abundance or harvest of marine resources (for example, cyclones, seasonal winds, tides, moon phases).
- When individual marine resources are harvested and how the level of harvest varies over the harvesting period (for example, times of the greatest or lowest fish catch).
- Variation in harvesting practices (for example if people's harvesting methods for a specific species change during the year).
- Existing management regulations that influence harvest periods (for example, prohibitions on fish catch at certain times of the year).
- Local knowledge about the resource (for example, spawning times, fish migration, etc.).

Key Steps:

Prepare a number of flip charts taped together to fit a row for each activity and a column for each month of the year.

Start with the following questions on seasonal environmental factors or conditions that affect marine resource use, such as:

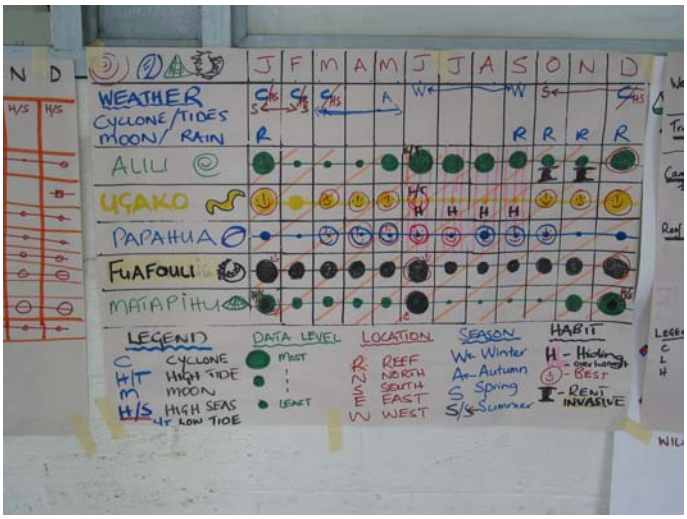
What are the important environmental conditions that influence access to fishing areas (for example, when are the cyclones, strong winds, moon phases, tidal changes, etc) and when do they occur? (Record local names for these seasons)

Once the above is recorded ask specific questions on the use of specific marine resources:

- What are the different kinds of fish or reef harvesting activities that you do? List these down the left hand side of the flip chart.
- Ask the group to go down the list of fishing or other harvesting activities and answer the following questions:
- When does this activity occur (or when is this species caught)? Using a coloured marker place a line through the month where harvesting occurs.
- How does the level of harvest vary over the year or harvesting period (for example, when is the greatest or lowest catch?), With a coloured marker put large circles over periods of the biggest catch, and smallest circles over the period when the catch is the least.
- Over the year are there any changes in harvesting methods? For example, does the equipment change, or is there a change in the location where people fish for this species. If so when? Place a symbol to represent the different locations over the relevant catch period. Keep a legend of different methods or sites.

• Are there any existing management regulations that influence the harvest periods (for example, prohibitions on fish catch at certain times of the year). If so when are these? Place a symbol to represent the different management restrictions over the relevant catch period. Keep a legend of these restrictions. • How do the habits of the fish or marine resource change during the year? For example do you know when the spawning times are? Or does the species migrate or become unavailable at certain times of the year? Place a symbol for each of the different types of lifecycle information over the relevant period. Keep a legend of different lifecycle information. When seasonal information for all the different fishing activities has been collected, ask probing questions to encourage group members to analyse the relationships between different harvesting activities and their attributes. Record the results of the group activity. If the village does more than one seasonal calendar, then make sure you complete this form for each, as each seasonal calendar may have different information. An example from Niue of how the information can be recorded is presented below.	
Strengths: Provides a great deal of relevant information in summary form. It can be easily adapted to a variety of situations and to gather additional information. Best for understanding the present situation. Is easily understood and implemented	***Weaknesses:*** Relies on memory of participants about activities over a year Relies on a commonly accepted idea among participants about what 'normally happens'

Source: Bunce et al., 2000



Womens' seasonal calendar, Niue facilitator training workshop, 2002

Seasonal Calendar Example: fishing calendar for Alofi North, Niue

Environmental factors	Jan	Feb	March	April	May	June	July	Aug	Sep	Oct	Nov	Dec
Windy	X	X	X							X	X	X
Rough seas	O	O	O	O							O	O
Calm seas					△	△	△	△	△	△		
Rainy				□	□	□	□					

Harvesting activities	Jan	Feb	March	April	May	June	July	Aug	Sep	Oct	Nov	Dec
Aheu (SF)	+	+++	++								++	++
Kaloama (SF)	++	+++	+++								++	++
Atule (SF)	++	+++	+++								++	++
Nue	X	X	X	X			++	++	+++	+++	X	X
Telehiki	X	+++	+++	++							X	X
Poe (SF)	++										++	++
Koho		+++	+++	++								
Tafauli		+++	+++	++								

Key: +++ most harvest; ++ medium harvest; + least harvest; X season hibernating time; SF = seasonal fish; RF = reef fish

Source: Niue IWP PSA, Village feedback meetings 2003.

Surveys

A ***survey*** is a systematic process of asking many people the same questions, and recording and analysing their responses (Neuman, 2000). A ***questionnaire*** is a survey instrument or tool. Surveys can be useful in a baseline study in quantifying certain factors (for example, the number of households making commercial use of a resource), and to establish a base against which to measure change over time. Careful sampling during surveys (discussed below) can ensure that the information collected in a survey is representative of a whole population (eg of a village or region), something which is not assured in using PRA methods with selected groups. Surveys can therefore usefully complement other data gathering methods (Russell and Harshbarger, 2003).

Designing, carrying out and analysing surveys is a complex activity that requires time and resources. If you decide that a survey is important to your information needs, you may find it useful to consult resource people, look at previous household surveys in your country or study area, or some of the many books that have been written on the subject of designing surveys.

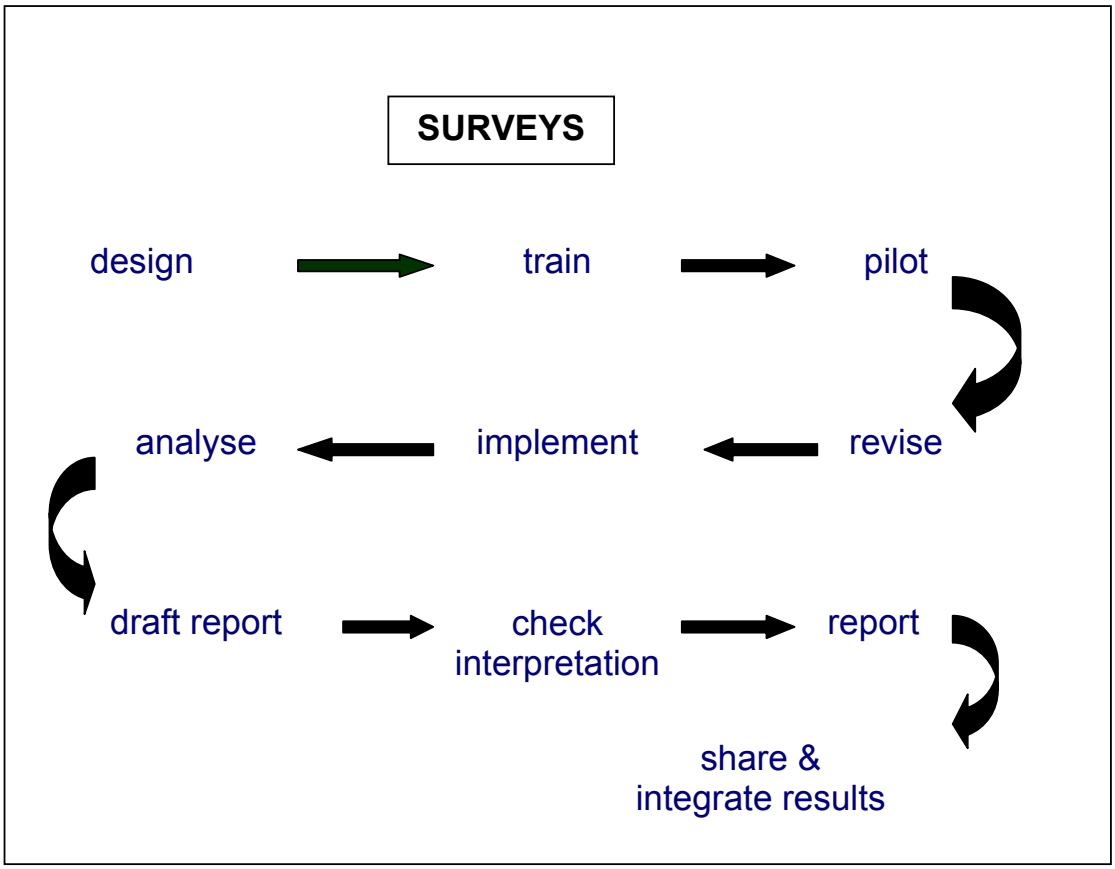
This section provides an introduction to some key issues in thinking about surveys.

Key Questions In: Designing And Managing Surveys

The following are some questions to be considered in designing and managing surveys.

WHY? Why are we doing the survey?	**HOW?** How long should the survey take? How do we analyse the data? How much will the survey cost?
WHO? Who will carry out the survey? Who is going to check the design? Who is going to supervise the survey? Who is going to coordinate the survey teams? Who is checking the quality of data? Who is writing the report? Who is presenting it?	**WHERE?** Where will you carry out the pilot survey? Where is the actual survey to be carried out? Where do we keep the information?
WHAT? What is the purpose of this survey? What language should you use to conduct the survey? What difficulties are we likely to face (cultural barriers, accessibility etc) What resources do we need to carry out the survey? What group (e.g. age and gender) are we to target? What type of information do we need to know?	**WHEN?** When do we carry out the survey? When is the best time to conduct the survey?

Conducting a survey generally involves designing a questionnaire, testing it, using it, and analysing and reporting on the findings. These steps are outlined in the figure below.



Designing and carrying Out a Formal Household Survey

One way to approach the design of a formal household survey is to ask the question:

> What aspects of the NRM problem, its causes, or its effects are you uncertain about as they appear in the 'Problem Tree'?

Express each of these uncertainties as a clear, concise question.

Then you can identify what specific information you need to answer each of these questions so that you will be reasonably certain about the nature and extent of the problem, the causes of the problem, and the effects of the problem. Identify just the information you *really* need—not more and not less.

Select the specific method or methods you will use to collect each set of information, to answer each question. Choose the easiest method that is appropriate. In this exercise, focus on questions that should be answered using a formal household survey, but note that you may want to collect preliminary

information using a simpler method before collecting more information in a formal survey.

Preparing the survey form:

- Design the questions and the layout of the form so it is easy to administer and easy to record. Consider very carefully the wording and order of the questions. Include spaces at the top of the form to identify the number, name, and location of the household, the time and date of the interview, the name of the interviewer, and the name of the person who answered the questions.
- Identify who should carry out each activity in the survey.
- Determine what sample size is required and how the population should be stratified, if necessary, and then select the specific households to be surveyed (see discussion on sampling below).
- Identify all the resources (funds, people, vehicles, materials, etc.) needed to carry out the survey.
- Train the surveyors. Consistency is very important. It may be useful for supervisors to do random spot checks of some households soon after they have been surveyed, to get feedback on how the survey is being conducted.
- Have the surveyors test or "pilot" the questionnaire on a small group of people who are similar to the people who will be surveyed. Note how long it took to chat, to explain the survey, and then to complete the form. If the survey takes too long, see how the time can be reduced (how long is too long? Think about how long you would be prepared to spend answering questions to a stranger. Russell and Harshbarger suggest 30 minutes as an absolute upper limit, but a 10-20 minutes is more likely to be acceptable to respondents).
- Note any problems the surveyors had and then re-train them if necessary. Talk with the people who answered the survey questions about how they interpreted each question, why they answered each question in the way they did, etc. Then rewrite any questions that need fixing and change the layout of the survey form if necessary. Repeat this step as many times as necessary until there are no problems with the form or with the instructions provided with the form.
- Develop an action plan for carrying out the survey—including the pilot survey—with times, locations, who is responsible for which households, how many households per day, getting permission, arranging transportation, who in the household will be asked to answer the questions, determine whether a survey person will ask the questions or just leave the form to be filled out, who will collect the forms, etc. Remember to allow time for returning to households where the appropriate person was not home during the first visit.
- Record the answers to the survey questions.

Reporting on the survey

Summarize the method used to design and carry out the survey. Be sure to report the sample size (the number of households interviewed). The information collected will need to be analysed to compile the information from the many questionnaires that have been completed – often in the form of statistics. Your report will need to 'tell the main stories' that emerge from the survey – what has been discovered about the relationship between the factors explored in the survey and the resource management issue? What is the current status of these factors (eg. Education levels, household incomes etc).

Sampling

Sample - A selection of units chosen to represent the target population. In **random sampling,** the method of selection is based on chance and all units in the target population have an equal chance of being selected.

In **non-random sampling** the method of selection is based at least partly on the bias introduced by the researcher.

Sampling Frame – a list or map of all the units in the target population.

Random samples – When you need to be highly confident that results are statistically representative of the whole group, you should select a random sample of informants. A random sample means that the people talked to have been selected without bias influencing the team's selection – the probability of each person being selected is equal. In random sampling the team assesses a statistically representative sample of the group. So data is representative of the whole group.

Types of random sampling –

Simple random sampling:	Selection of units by chance in its purest, simplest form.
Systematic sample:	Choose a random point on the list or map and select units spaced at regular intervals from then on.
Stratified random sample:	Use existing information to divide the sample into sub-groups called strata, then select a random sample within each sub-group.
Cluster sampling:	To save time and money, you can choose the sample from several randomly selected clusters or areas of concentration rather than from the entire target population.

Types of non-random sampling –

Purposive sampling	Selecting units which you believe to be 'typical'.
Genealogy-based sample	Sample entire families, including all close relatives to get a cross section of the community
Random walk	Surveyors follow a pre-set route, interviewing households at regular intervals

A Quick Comparison of Non-Random and Random Sampling

Sampling Method	Example of Methods Using this Sampling Approach	Advantages	Disadvantages
Non-Random Sampling	Oral history, focus group, observation, semi-structured interview	Compared with random sampling, relatively inexpensive and time intensive.	Resulting data are not statistically representative of the stakeholder group
Random Sampling	Survey, semi-structured interview	Use when you need to be highly confident that data are statistically representative of the stakeholder group.	Can be expensive and time-consuming Needs careful sample design Requires a well-defined target population (eg list of the entire target population)

Annex 3: Stakeholder participation plan

Case 24: Stakeholder participation plan for a Tongan waste project

STAKEHOLDERS	STAKEHOLDER REPRESENTATIVES & CONTACTS (these have been deleted here for confidentiality purposes)			TYPE OF PARTICIPATION		
GOVERNMENT MINISTRIES	CONTACT NAMES	**POSITION**	**Phone** Fax #	**INFORM (one – way flow)**	**CONSULT (two-way flow)**	**Collaborator (sharing control over decision making)**
1. Department of Environment						X
2. Ministry of Fisheries						**X**
3. Ministry of Health						**X**
4. Ministry of Lands, Survey, and Natural Resources						**X**
5. Ministry of Marine and Ports						**X**
6. Ministry of Agriculture and Forestry						**X**
7. Ministry of Works						**X**
8. Ministry of Foreign Affairs					**X**	
9. Tonga Visitors Bureau						X
10. Tonga Water Board						**X**
11. Ministry of Education					**X**	
12. Central Planning					**X**	

13. Ministry of Labour Commerce and Industries					**X**	
14. Statistics Department					**X**	
15. Ministry of Finance					**X**	
NON-GOVERNMENT ORGANISATIONS						
16. Tongan Association for Non Government Organisation (TANGO)						**X**
17. Langafonua ‘a e Fefine Tonga						**X**
18. ‘Aloua ma’a Tonga					**X**	
19. Tonga Community Development Trust					**X**	
20. Tonga Human Rights & Democracy Movement				**X**		
21. Tonga National Youth Congress					**X**	
22. Tonga Council of Churches					**X**	
23. Pan Pacific Women Association						**X**
HIGH COMMISSIONERS AND EMBASSIES						
24. Australian High Commission				**X**		
25. New Zealand High Commission				**X**		
26. European Union				**X**		

27. Chinese Embassy				**X**		
28. Canada Fund				**X**		
RADIO & TELEVISION						
29. Television Tonga				**X**		
30. Oceanic Broadcasting Network Television				**X**		
31. Radio Nuku'alofa FM				**X**		
32. Radio 2000				**X**		
33. Tonga Broadcasting Commission A3Z Radio Tonga & FM 98				**X**		
NEWSPAPERS						
34. Kele'a				**X**		
35. ‘Ofa ki Tonga				**X**		
36. Taimi 'o Tonga				**X**		
37. Tonga Chronicle				**X**		
38. Matangi Tonga				**X**		
39. Tohi Fanongonongo				**X**		
40. Taumu'a Lelei				**X**		
VOLUNTARY ORGANISATIONS						
41. US Peace Corps					**X**	
42. JICA-JOCV					**X**	
EDUCATIONAL INSTITUTIONS						
43. University of the South Pacific					**X**	
44. Tonga Maritime Polytechnic Institute					**X**	

OTHERS						
45. Walt Smith International Ltd					**X**	
46. Tonga Fisheries Project					**X**	
LOCAL RESOURCE PEOPLE						
47. Person in teaching/research (name deleted)					**X**	
48. Tonga Community Development Trust					**X**	
49. Department of Environment, Tonga					**X**	
EXTERNAL RESOURCE PEOPLE						
50. SPREP					**X**	
51. Gillet & Preston Associates					**X**	
52. Golder Associates					**X**	
53. University of Wollongong, Australia						

Source: Tonga IWP (2003) Stakeholders Participation Strategy for Tonga's Strategic Action Programme for the International Waters of the Pacific Small Island Developing States