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Annex 1: Example of a training workshop format



Annex 1: Training workshop

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)



Annex 1: Training workshop

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



<p>2. Baseline Assessment</p>	<p>What is a baseline assessment? Determining information needs for socio-economic baseline assessment Designing and carrying out surveys:</p> <ul style="list-style-type: none"> • 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 	<p>Small group activity with country groups: questions and information needs matrix (about environmental problems)</p>
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Day 6: Developing solutions and assessing their likely impacts

Sessions	Topics	Activities
<p>1. Developing a Solutions Tree</p>	<p>Purpose of Solutions Tree Example of a Solutions Tree (Niue IWP)</p>	<p>Small group activity: Solutions Tree</p>
<p>2. Overview of Social Impact Assessment</p>	<p>What is SIA? Key steps in assessing social impacts</p>	
<p>3. Likely Consequences Tree</p>	<p>Introducing Likely Consequences Tree</p>	<p>Small Group Activity: identify pilot project options and develop a likely consequences tree for each option</p>
<p>4. Issues in Information Management</p>	<p>Issues in information management: problems and solutions Review of research methods and triangulation of oral, written and visual sources Comparing participatory and conventional approaches</p>	<p>Discussion: information needs and methods</p>

**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

<p>What is it? An interview based on ‘open-ended’ questions or discussion points to generate qualitative information</p>	
<p>Purpose: Generates in-depth and explanatory information on specific issues. Identifies local terms, language and priorities. Allows an exchange of information.</p>	
<p>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.</p>	
<p>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</p>	<p>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</p>
<p>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.</p>	

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:

Encourages discussion as some persons may be more comfortable talking in a group of similar people. The discussion stimulates more responses from participants.
 Generates information about different points of views between different groups or within a group
 Reaches a large number of people in a short amount of time
 Encourages the participants to raise issues that the interviewer may not know about
 Generates explanatory, qualitative information
 Identifies local terms, language and priorities

Weaknesses:

Generates descriptive information that can't be statistically analysed
 Requires experienced facilitator
 Is time-consuming for persons participating
 Requires some interpretation by person collecting the 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.

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 be shown by 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.



Annex 2: Methods for Socio-economic Assessment

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 (laku)	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.



Annex 2: Methods for Socio-economic Assessment

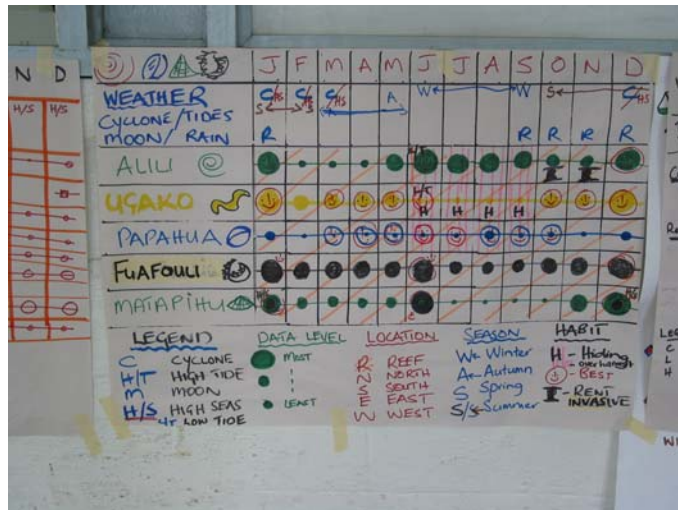
- Are there any existing management regulations that influence the harvest periods (for example, prohibitions on fish catch at certain times of the year). If so when are these? Place a symbol to represent the different management restrictions over the relevant catch period. Keep a legend of these restrictions.
- 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:	Weaknesses:
Provides a great deal of relevant information in summary form.	Relies on memory of participants about activities over a year
It can be easily adapted to a variety of situations and to gather additional information.	Relies on a commonly accepted idea among participants about what 'normally happens'
Best for understanding the present situation.	
Is easily understood and implemented	

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.

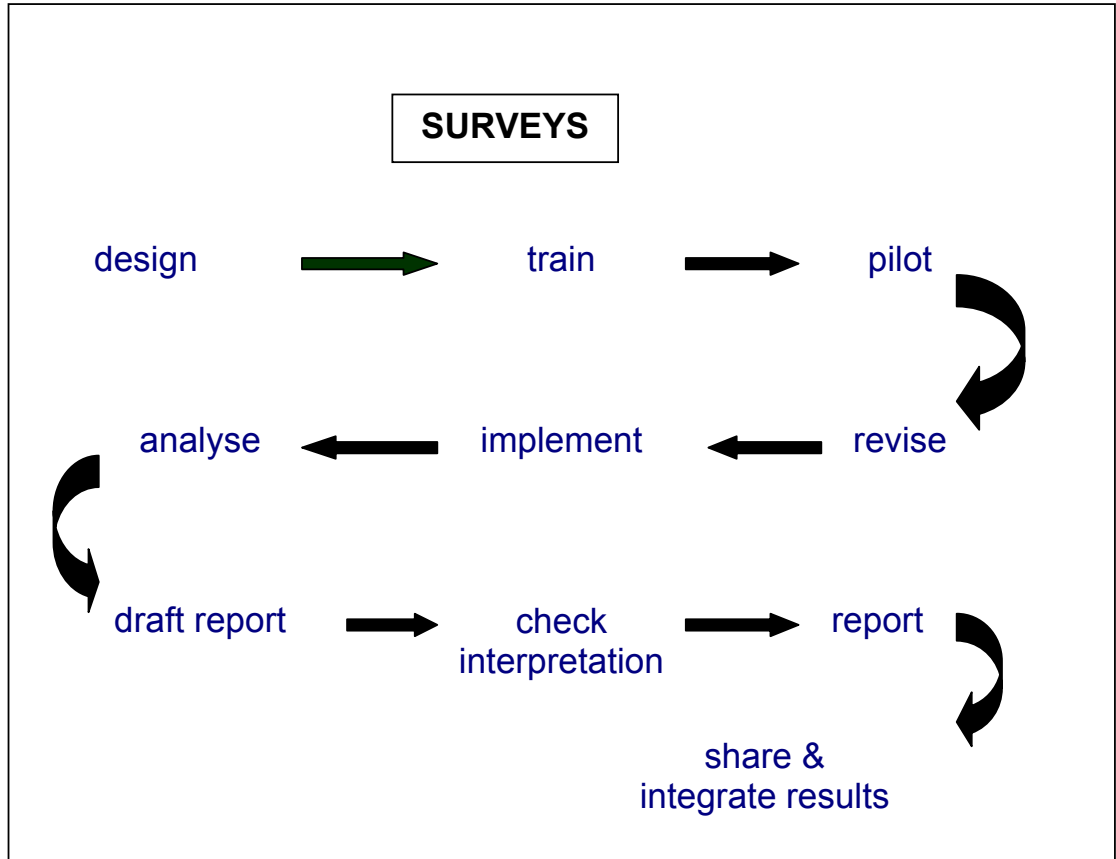
Key Questions In: Designing And Managing Surveys

The following are some questions to be considered in designing and managing surveys.

<p>WHY?</p> <p>Why are we doing the survey?</p>	<p>HOW?</p> <p>How long should the survey take?</p> <p>How do we analyse the data?</p> <p>How much will the survey cost?</p>
<p>WHO?</p> <p>Who will carry out the survey?</p> <p>Who is going to check the design?</p> <p>Who is going to supervise the survey?</p> <p>Who is going to coordinate the survey teams?</p> <p>Who is checking the quality of data?</p> <p>Who is writing the report?</p> <p>Who is presenting it?</p>	<p>WHERE?</p> <p>Where will you carry out the pilot survey?</p> <p>Where is the actual survey to be carried out?</p> <p>Where do we keep the information?</p>
<p>WHAT?</p> <p>What is the purpose of this survey?</p> <p>What language should you use to conduct the survey?</p> <p>What difficulties are we likely to face (cultural barriers, accessibility etc)</p> <p>What resources do we need to carry out the survey?</p> <p>What group (e.g. age and gender) are we to target?</p> <p>What type of information do we need to know?</p>	<p>WHEN?</p> <p>When do we carry out the survey?</p> <p>When is the best time to conduct the survey?</p>



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			TYPE OF PARTICIPATION		
	CONTACT NAMES	POSITION	Phone Fax #	INFORM (one – way flow)	CONSULT (two-way flow)	Collaborator (sharing control over decision making)
	(these have been deleted here for confidentiality purposes)					
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. Langa fonua '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						



Annex 2: Methods for Socio-economic Assessment

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	



Annex 2: Methods for Socio-economic Assessment

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