ASSESSMENT FOR SUSTAINABLE TOURISM

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Acknowledgements

The majority of the following material is excerpted or modified from:


OVERVIEW

The first step in planning for sustainable tourism is to assess what your site has to offer to tourists, and whether it can support tourists’ needs and desires in a way that protects and preserves the local environment and culture, and that is also economically feasible.

The first question is whether sustainable tourism should be pursued at all. A SWOT analysis, to define the community’s strengths, weaknesses, opportunities and threats, can illuminate this question. If sustainable tourism is to be pursued further, a small planning team can be formed to assess the site and its tourism potential. Important areas of information include the area’s natural resources, cultural resources, protected area status and policy environment, tourism industry interest, visitor patterns, infrastructure, and any necessary marketing and promotion.

The planning team can gather this information by using a variety of tools, including existing materials and maps; visiting the MPA as if they were tourists; interviewing residents, tour operators, and tourists; conducting surveys and questionnaires; conducting community mapping meetings; and organizing other meetings and workshops to bring all participants together. As many stakeholders as possible should be involved in the process, particularly the local community and experienced tour operators.

In this module you will develop and use several of these assessment tools for your own area, and begin assessing its potential for sustainable tourism.

LEARNING OBJECTIVES

- Understand the importance of assessment in planning for sustainable tourism
- Know what information to gather, and what tools will help you gather it
- Develop a list of assessment questions that you would like to answer for your own site
- Learn how to tap community knowledge of locations of resources in & near the MPA
- Learn about focus groups, resident surveys, and other tools used to gather information from community members and other stakeholders about their attitudes, priorities and ideas
- Develop a visitor survey for your own site
- Conduct preliminary attractions and infrastructure assessments for your own site
LESSON PLAN

2.1 SWOT ANALYSIS

The Need For Assessment

In the previous module, we discussed the basic concepts of sustainable tourism and the benefits and threats it offers to marine protected areas, and developed a vision for sustainable tourism for MPAs of Southeast Asia. How can we take concrete steps toward making that vision a reality? A sustainable tourism program must be planned carefully if it is to be successful. The planning process must include a thorough assessment of everything that the MPA and local community have to offer to tourists: inventories of tourist attractions and infrastructural capability, analysis of market demand and competitiveness, and socio-cultural elements. In addition, the assessment must carefully consider conservation issues and other factors that may be negatively impacted by sustainable tourism.

The goal of assessment is to determine whether tourism development is possible that will contribute to conservation and poverty alleviation, will maintain the principles of sustainable development, will be supported by the community, and will be economically feasible.

To begin, let’s look at a tool for initial assessment of the community’s strength and weaknesses. This tool, SWOT analysis, can help determine whether sustainable tourism should be pursued for a given community and MPA.

What is SWOT analysis?

SWOT analysis is an analysis of a community’s Strengths, Weaknesses, Opportunities, and Threats. It is a planning framework through which communities can articulate their socioeconomic priorities, determine their interest in tourism as a potential income generation activity, their perceived readiness for development, and express their concerns about tourism development. It is most useful as a first step before detailed assessment begins.

Why do a SWOT analysis?

Community support and involvement in the design and implementation of a sustainable tourism plan is essential for long-term success of the program. A sustainable tourism program must consider the value of tourism to the community, economically, socially, politically, culturally and environmentally. And, the community must have buy-in on all these levels. Community buy-in provides a solid foundation on which to build a sustainable program, but there must be actual benefits to the community for this support to be sustained.

How To Do A SWOT Analysis

Handout 2.1 - SWOT Analysis Diagram

Handout 2.2 - SWOT Analysis Questions
Usually a SWOT analysis is done by local community members with the guidance of an assessment team. A range of community members should be included to obtain a realistic picture of the whole community. Be sure that differing literacy levels do not impede involvement for any participants - make text documents accessible through conversations, figures and sketches.

A sample SWOT diagram:

Using the SWOT diagram, the local community members illustrate the primary internal strengths, internal weaknesses, external opportunities, and external threats affecting or potentially affecting successful tourism development in their community. A review of maps and guides may help provide a sense of the relationship of the community to nearby natural resources.

“Internal” strengths and weaknesses refer to realities that affect the community and that community members have basic control over, such as the strength of a well-managed protected area or the weakness of a lack of communication between local tourism stakeholders.

“External” opportunities and threats refer to realities that affect the community and that community members do not have immediate control over, such as the opportunity of reliable national transportation or the threat of national political instability.

Once the sections have been filled in, the assessment team can analyze the results and have the participants vote on their top three priorities per section. This will help filter out the minor issues.

SWOT analysis can reveal to the Assessment Team such aspects as:

- **Key issues** regarding strengths, weaknesses, opportunities, and threats and how their impacts may balance or exceed each other.
- **Communication abilities** of the community.
- **The overall attitude** of the local participants - generally positive or negative?
- **Their cohesiveness** and capacity to work together.
- **The government and political structure** of the area, which can help determine possible points of negotiation and feasibility of negotiation between the community and national authorities.
The final decision will reflect the community’s readiness for tourism development. The assessment team can recommend one of three actions:

1. **The rest of the assessment should not proceed** (i.e. sustainable tourism development is not, at present, a practical path for this community and MPA)
2. It may proceed in part;
3. It may proceed in its entirety.

If the decision is to proceed, the assessment team will want to identify key local stakeholders who can help participate.

**Exercise: SWOT Analysis**

Using the SWOT chart and working in small groups, perform a SWOT analysis for your own MPA. Once the SWOT analysis is conducted, put yourself in the role of an assessment team: analyze the results and determine the top three priorities in each section. Present the small group’s findings to the large group.

### 2.2 ASSESSMENT & DIAGNOSTIC PROCEDURES

#### Building an Assessment Team

Once you have definitely decided (via SWOT analysis or a similar tool) that sustainable tourism is worth investigating for your MPA and local community, the next step is to assess what the MPA potentially has to offer for tourists and whether or not sustainable tourism is logistically and financially viable.

Planning is a complex challenge that should be accomplished by an interdisciplinary team. Careful thought needs to be given to selecting team members to ensure that the team has the necessary skills, knowledge, and expertise to develop and guide the implementation of a plan.

A core team should be assembled consisting of:

- **a team leader/planner** (someone to lead the team through the entire process)
- **a decision maker** (protected area manager, superintendent, etc.)
- **two or three key staff/specialists** of the protected area.

(We will also refer to this small core team as the "assessment team" or "planning team".)

It is essential that all of these individuals be part of the core team. In addition to the core team members, a variety of consultants will likely participate at different points in the development of a plan.

**Pointers for building the core team**

MPA staff should play a major role in the development of any sustainable tourism plan in the MPA, because they will be responsible for implementing it. If the plan is to succeed, it is important that the planning team cultivate staff understanding of and ownership in the plan.

Developing a plan may take a lot of time and effort. Before beginning work on a plan, the MPA
manager and protected area staff need to be aware of the future work-load requirements, and be willing and able to make the needed time commitments. This commitment must be strong throughout the planning effort. If team members do not attend meetings, do not do assigned work, or drop off the team, the chances significantly increase that the plan will fail. (The ability of people to commit to team participation may be one of the criteria in selecting team members.)

The core team should be kept relatively small (i.e., 3–7 members). It should include diverse perspectives and disciplines, and should represent a range of park staff and management. Since direction must be given to the team on numerous details, it is desirable to have the MPA manager - someone with the authority to make decisions - on the core team. In instances where the manager cannot sit in, an assistant manager should participate. In the latter case, the manager should be regularly briefed on the status of the effort to avoid any surprises.

The core team should rely on consultants to provide additional skills and abilities. The number and types of consultants and the duration of their involvement will vary depending on the core team’s needs and abilities, and the characteristics of the park. Some of these consultants could be from outside the MPA, including other agencies, stakeholders, and research institutions. For sustainable tourism assessment, the larger team (core team + consultants) should include specialists in:

- Tourism development;
- Business analysis and marketing research;
- Local cultural heritage and history;
- Local wildlife, plants and other natural resources;
- Environmental and biodiversity conservation;
- Socio-economic development in rural areas;
- Local, regional and/or international tourism.

From time to time, the team may also benefit from the involvement of specialists in:

- Resource management
- Interpretation and education
- Social sciences
- Geographic information systems
- Public involvement
- Protected-area maintenance
- Concession management
- Landscape architecture
- Writers/editors
- Community planning
- Facilitators
- Historic site preservation

The core team will typically arrange meetings and events to pull together a much larger and highly participatory team including as many stakeholders as possible. Local community organizations, tourism operations and governments should all be included. Some of these representatives may also be in a good position to provide lodging, transport or even some funding for the core team or even the larger team. For practical reasons, the core team will usually do most of the detailed assessment, administrative work, and will organize the planning meetings, but the larger team should be made to feel included in the entire process.
Members of the local community should be included at the outset, including, if possible, representation on the core team. The active support of the local community is essential for the success of any sustainable tourism enterprise.

It is also important to be aware of possible gender issues as the core team assembles the local participant group. Note that some societies assign different roles and responsibilities depending on gender. While the core team will want to be respectful of traditions, this is the time to make sure that everyone has the opportunity to be heard in the discussion. For example, which issues could be gender-sensitive, and therefore who would be the best candidate to represent and address that issue?

The core team should ultimately decide who the best candidates are and for which "locally-based" reasons. However, it is recommended that the selected candidates should have some or all of the following abilities and experiences:

- Ability to interact easily with fellow residents and visitors.
- Ability to listen to people without bias and to understand and articulate their expressed values, concerns and viewpoints.
- Ability to build rapport easily and create an atmosphere of comfort and trust.
- Recognition as a respected or influential member of the community.

**Exercise: Building your assessment team**

*Working in a small group for each MPA, take 15 minutes to decide on who you would like to have on the team for assessing & planning for sustainable tourism at that MPA. Who do you want on the small core team? What consultants and community members would you like to involve in the larger team?*
Each small group will then describe the “dream team” to the whole group (5 minutes) and describe why you want those people. Remember to refer to the “abilities and experiences” criteria on the previous page.

What Information Is Needed?

The assessment team can conduct an inventory of what the MPA has to offer tourists, and whether tourism can be economically feasible while also being culturally and environmentally responsible. Your team may wish to study the following aspects of your site, described in more detail in the accompanying handout. Are all of these topics relevant for your site? Should other topics be studied too?

**Attractions Inventory**—Attractions are the magnets that draw visitors to the destination. They include beautiful scenery, interesting species, cultural events (music festivals, etc.), and opportunities for certain activities (scuba diving, etc.).

**Infrastructure and Services Inventory**—Inadequate infrastructure, transportation, lodging, food, and other basic services can hinder the development of a tourism destination, even those with unique attractions.

**Market Demand**—Market potential for a destination is determined by the assessment of the tourism trends and visitor profiles. Based on tourist demographic profiles, this assessment analyzes travel interest in the destination and identifies existing and future travel markets.

**Competition**—An assessment of the competition in the region can give the destination a clear idea of what competitors are doing and how to compete with other local destinations. Also consider destinations around the globe that offer similar products, because they are competing for the same tourists.

**Human and Institutional Capacity**—Tourism is a people-oriented business and depends on quality service from trained managers and employees.

**Socio-Economic and Cultural Factors**—The community’s attitudes and expectations, its developmental needs and priorities, and its socio-economic situation, are all important both for its capability to support tourism and for facilitating positive interactions between residents and tourists.

**Ecological “Footprint” and Conservation Impacts**—A critical step is to assess the potential impacts, both negative and positive, of tourism development on biodiversity and the environment.

In the second half of today’s module you will have the opportunity to discuss some of these topics as they apply to your site.
How To Get The Information

Handout 2.4 - Information Sources

1. Review of Existing Written Materials
One of the first steps of the planning team should be to collect and review all of the written materials about the protected area that already exist and are relevant for tourism. These might include:

- The general management plan
- Relevant legislation and policy documents
- Scientific studies
- Wildlife inventories
- Visitor surveys and profiles
- Tourism statistics for the MPA and nearby sites
- Analyses of national tourism trends

2. Fieldwork
Thoroughly knowing and understanding the area is fundamental to developing a viable sustainable tourism plan. The planning team must obtain a comprehensive view of the MPA and everything that could affect sustainable tourism development (which is just about everything).

First, your team should become familiar with the general layout of the MPA, the location of the major natural and cultural features, actual and potential visitor sites and infrastructure within the MPA, and other nearby sites. Existing maps, aerial photographs, satellite images, and GIS analyses may be helpful. Internet satellite-image mapping websites (e.g. Google Earth) may help fill in missing pieces.

Second, the team should visit the MPA, taking a tourist’s perspective. The team should visit every site that has any potential whatsoever for sustainable tourism, remembering that a tourist can be anybody from backpacker who wants to hike and camp, to a senior citizen who wants to stay in a comfortable lodge or cabin. Often a research assistant can carry out an initial site exploration, taking photos and detailed notes to relay to the rest of the team. This data will identify key areas for further in-depth investigation and may rule out areas initially thought to have potential. The full team should then make several trips, behaving as if they were tourists -- staying in the same local hotels, using area hiking trails and existing transportation, etc. The team can ask questions such as:

- How long does it take to get from one place to another?
- Is the MPA accessible? Are sites within the MPA accessible?
- Where are the potential lodging sites?
- What are the major attractions?
- What are the activities that visitors might engage in?
- What are the obstacles?
- Is it safe?
- Is it comfortable?

Particular attention should be paid to existing zones or sectors, present and potential visitor sites, infrastructure such as guard posts, shoreline areas, hills and mountains, trails, camp sites, access points, lakes, streams, springs, etc.
Discussion: Your own tourist experiences in Southeast Asia

Going around the group, every participant briefly describe which places you have traveled to in coastal areas of Southeast Asia, and which were your favorites. Did you travel as a tourist, staying in typical tourist locations and lodgings? Do you feel that you have a good idea of what each location currently has to offer tourists, in terms of attractions, lodging, etc.? Compare your experiences with those of others in the group.

3. Gathering information from other people

The next step in assessment for sustainable tourism is to begin gathering information from as many stakeholders as possible: residents, tourists, tour operators, and so on. There are many methods of gathering this information, ranging from informal conversations to highly planned surveys, questionnaires, focus groups, mapping meetings, and so on. These methods are so useful for sustainable tourism assessment that we will devote the next section of today's module to exploring them in detail.

Case study: Assessment of the Tanzanian Coast

In 2001, the Tanzania Coastal Management Partnership performed a thorough assessment of the potential for sustainable tourism along the Tanzanian coast. Like many nations of Southeast Asia, Tanzania already receives a high volume of tourists, but did not yet have a coordinated plan for, of a full assessment of, the rural coast's ability to attract tourism. A Coastal Tourism Working Group traveled the entire Tanzanian coastline to perform three key inventories: attractions, accommodations, and accessibility. The group sought to identify particular locations where unique attractions were clustered together, and could be further developed for sustainable tourism, with suitable improvements in accommodations and accessibility. (See the handout for details. As you read it, consider which tools the assessment team used, and which might be useful for your own area.) This approach brings together several of the tools that we will discuss below, and illustrates how a large-scale approach to coastal tourism can identify unique attractions and neighboring sites that can be linked together to more effectively attract tourists. These approaches can be directly applied to Southeast Asia, as we will see below.

2.3 GATHERING INFORMATION FROM OTHER PEOPLE

Questions To Guide The Assessment

Discussion: What questions do you want to ask?

In small group for each MPA, take 20 minutes to discuss what questions to ask when you do interviews, surveys, questionnaires, etc. Use the “Questions to Guide the Assessment” handout.
for ideas, but remember it is not a complete list - you might develop additional important questions on your own.

Remember there are several different groups of stakeholders that you can seek information from - local residents, tour operators, tourists, etc. What are the most important questions for each? If you could ask only 3 questions to a resident, a local tour operator, and a tourist, what would those be?

Later, the whole group discuss their decisions briefly (10 minutes).

For a full assessment, you will want to gather information on each of the following topics:

**Natural Resources**
This section includes every aspect of your MPA’s natural resources - geography, climate, environment, biodiversity, endangered species, charismatic species, scenic values, vulnerable ecosystems, etc. Consider which can have potential as tourist attractions, and which may be vulnerable to tourism impacts. Consider also the seasonality of certain resources (e.g., weather, migratory species, breeding seasons).

**Cultural Resources**
This category includes population profile, cultural background, local traditions and customs, resistance or acceptance of outside visitors, poverty and educational levels of local peoples, historical or archaeological sites, etc. This section also includes the historical, archaeological or current cultural sites and events that could act as attractions or in some way affect how ecotourism would be carried out.

**Political and economic climate**, including the protected area’s status, i.e., whether there is adequate protection of the area’s boundaries, and administrative and economic support for a quality sustainable tourism operation.

**Visitor profiles** - Since visitor interest and demand will drive any future sustainable tourism program, it is essential to fully understand the nature of current and potential visitor use. Consider who you want to attract, and then assess practically who you can attract. What types of people would be interested in the attractions that the MPA has? Where do they live and what are their interests? etc. It is unlikely that much information will be available; most likely, you will need to interview or survey current visitors, or visitors to nearby tourist attractions.

**Tourism industry** - Without the active support of experienced tour operators, a sustainable tourism operation in a protected area cannot be successful. First, assess the existing tourism industry - existing attractions, existing hotels and services, general trends in arrivals. Then seek tour operators to interview or survey about possible future involvement in sustainable tourism. Are tour operators prepared to work with the local communities? Are they willing to take steps to reduce their environmental impacts?

**Communities** - It is almost as important to have detailed information about the communities around the protected area as it is to understand the natural and cultural resources located within the protected area. Local people can have a huge influence upon any MPA management activity; this is especially true of sustainable tourism. Ideally, there should be a mutualistic relationship between the protected area and the communities adjoining it, each benefiting from the other.
Tools for Gathering Information from Other People

Using interviews, meetings, focus groups, questionnaires and surveys, the team can gather information from other people who have useful knowledge about the MPA or local community. Different people will have different perspectives. All of these perspectives are useful in some way. For example, a fisher person may be able to provide useful information about where certain reef fishes are most likely to be found - though a scuba diver may wish just to observe the fishes, not to catch them. Scientists may know the location and seasonality of unusual vegetation and wildlife, and the locations of fragile populations that may need extra protection. Local people may know about trails, potential attractions, accessibility and a host of other information. MPA personnel, especially on-site staff, are an essential source of information about the resources, visitor behavior, and local community relationships.

The perspective of tourism operators is also important. They know the tourists, and their preferences and expectations, better than any other participant. They can identify challenges and opportunities that others may not perceive. If little or no tourism is occurring at present, it will still be useful to interview any tourism operators who may be interested in future sustainable tourism. Their willingness to support sustainable tourism guidelines (limited visitor numbers, low impact, and economic benefit to the protected area and local communities) will be crucial.

Some of the most widely used, and useful, tools for gathering information from other people are:

**Interviews** are the best way to gain detailed information and to involve a participant as fully as possible. The back-and-forth nature of a conversational interview allows participants to bring up valuable topics and insights that a pre-planned questionnaire might miss. Taking guests on field trips of the MPA is often a good opportunity for an extended interview that is enjoyable for all parties, and the sights seen may remind interviewees of important points that would otherwise have been overlooked.

**Questionnaires and surveys** are a useful tool for documenting the information obtained from interviews, and are essential if sample sizes are so large that face-to-face interviews are impractical. Questionnaires and surveys need to be short and well-designed, preferably by a professional, and should be field-tested on a small scale before widespread use. Often it is useful to do at least 2 questionnaires/surveys: one of tourists who are visiting the local area, and one of local residents.

Questionnaires and surveys can tell you about your audience’s:
- Demographic and psychographic profile (e.g., age, occupation, education level, etc.)
- Behavior and lifestyle
- Level of knowledge about the MPA and sustainable tourism, i.e., what they know and what they need to know
- Opinions and likelihood of support for the MPA as it currently is managed, and for any proposed changes to the MPA or for sustainable tourism programs.

**Focus groups, workshops, and meetings** are invaluable for bringing stakeholders together and promoting a fruitful exchange of ideas among all participants. They are essential for several reasons: First, they are a valuable means for obtaining practical information and opinions. Second, they make stakeholders feel involved in the planning process. Third, they are educational - while meetings should not be designed exclusively for this purpose, they can be used to inform people about the MPA, its objectives, and sustainable tourism.

There should always be follow-up to a workshop or other meeting - i.e. a summary of the meeting & the major points raised by participants, and an outline of any decisions and next steps.
This should be disseminated to everybody who was at the meeting. This allows people to feel that the meeting was productive and that their opinions were listened to.

Let’s now look at three of these tools in detail: focus groups, resident surveys, and a type of meeting called a community mapping meeting.

1. Focus groups
A focus group is a meeting with a small number of individuals who are asked to give their opinions on a number of questions (sometimes written in questionnaire or survey form) with some group discussion of each question. Basically, a focus group is a structured interview that is done in a group. It is an efficient way to learn about the activities of various groups and organizations, understand how they could contribute to sustainable tourism, and elucidate the relationships among them and their likely opinions on sustainable tourism. The key objective is to create a rapport with these representative groups to discuss the challenges and opportunities of developing and sustaining tourism projects in the area.

A good focus group size is ten or fifteen people, representing a wide variety of the populations’ interests, and also representing viewpoints on both the negative and positive aspects of sustainable tourism development. Stakeholders should represent the full range of institutions and organizations active in the locality, and also should include some individual residents. Where possible, try to include those individuals who have the respect and confidence of the community, are knowledgeable, and can engage in discussions on tourism development and sustainability.

Examples of people to invite to focus group:
- Members of the local municipality
- The academic community
- The private sector
- The farming community
- Transportation authorities
- The scientific community
- Culture and arts associations
- Tour operations, hotels, restaurants, nightclubs, and bars
- Respected local leaders like elders, church leaders, schoolmasters, teachers, and community political leaders.

Exercise: Who would you invite to a resident focus group?
In small groups, discuss who you would invite to be in a focus group in your community. Be as specific as possible. If you can’t think of specific individuals for some categories, who could you ask to recommend an appropriate person? Write down a list of names - you can use this list in the future to arrange an actual focus group.

Hosting a Focus Group
Hosting a focus group is usually the responsibility of the planning team - the core group of (often) 3-5 people who are taking the lead on the entire planning process. The planning team starts by introducing themselves and describing of the planned assessment work. Each person should be asked to introduce himself or herself and briefly describe the activities of his/her association. The planning team should then present its motivations, explain to stakeholders why this is an important meeting, state clearly what the objectives are, and explain what they would like to
achieve.

The planning team then asks the group questions, working from a pre-planned list of questions or from a questionnaire handed out to the whole group. Participants each give their own answers, and the whole group discusses each question briefly. It is important for all members of the focus group to be given a turn to state their opinion. It is also essential for the organizers to stay neutral, listen to the others, and try to understand their viewpoints. While it may be appropriate to provide information, it is not a time to try to argue with the participants or to try to sway them to change their opinions. The purpose is to uncover what the participants currently think, and to make them feel that they are being listened to.

A good focus group process will engage the audience and reveal issues and concerns that the community may have regarding tourism development, natural resources issues and socio-economic and cultural priorities. One or two members of the planning team should take careful notes of all the major points raised (positive and negative) and who raised them.

Handout 2.7 - Sample Focus Group Questionnaire

Exercise: Mock Focus Group
Break into two groups and conduct a mock focus group as described in the Focus Group handout. Participants may wish to role-play as different stakeholders – fisher people, hotel owners, local residents, etc. Use the questions in the handout as a basis for a mock focus group questionnaire. You may wish to change the questions or add questions of your own.

At the end of this exercise, you will know how to run a focus group, and will have a list of questions to ask and a list of people to invite.

2. Resident surveys
A well-planned resident survey will provide a snapshot of residents’ socio-economic situation and attitudes towards the MPA, conservation, and sustainable tourism development. In addition to understanding how much and what kind of tourism is desired, it can help the team understand residents’ livelihoods, their relationship with natural resources in the area, and how tourism may be structured to foster socio-economic and environmental priorities.

Who Should be Surveyed?
In most cases, surveys are conducted on a randomly selected sample of the whole population. This may be done directly by going from house to house or by choosing highly frequented areas – markets, street corners, etc. – and asking every second or third passer-by to answer your questionnaire. In some locations surveys can be mailed or done by phone.

For your sample population to be representative of the entire population, you will need a sufficient sample size, and you need to ensure that your sample is representative of the whole population.

Fortunately, in most instances a complex calculation for determining sample size is not usually needed. A simple rule of thumb is that for populations larger than 2,000, use at least 385 surveys to accurately reflect overall population trends. To make sure your sample is representative of the whole population, be sure that every member of the population has an equal chance of being selected. For example, if you are surveying people in public areas, use several different areas in the community. Otherwise, if you survey at only one location, you may get a biased sample, i.e.
all respondents happen to belong to the same family, or same income level, same profession, etc.

**Key considerations for resident surveys:**

- Some communities prefer to make decisions by consensus. If this is the case in your destination, you may need to survey all households. This is called a household-based census.

- If you have some respected people in your destination whose opinions are traditionally deferred to, such as elders, include them in your sample.

- You may have people who live outside the local area who are still considered community members. If you feel it is important to include them in the survey, add their names to the list from which you draw your sample.

- Include marginalized groups. They are often critical to understanding resident life. For example, written surveys will miss any segments of the population that have low literacy; and phone surveys may miss low-income residents who do not have telephones. Be sure poor villagers, low-status ethnic groups, etc. are included in your survey, because they too will affect the success of sustainable tourism in the community.

- It is advisable that only outside help or members of the original assessment team conduct the resident survey. If local people do this, the results may be less objective due to personal interests.

**Designing the Survey**

Survey design can be difficult, and if possible the assessment team should hire an outside specialist in surveys. Choice of questions, and their phrasing, is critical. Questions need to be phrased neutrally without "leading" the respondent to a certain answer. Consider also the order of questions and the length of the survey. A response to a question may be affected by the topics presented in previous questions, and questions near the end of a long survey may get less attention than questions in the beginning. Finally, consider exactly how the results will be analyzed - this will clarify how to structure the survey.

For ease of tabulation of results, survey questions should be multiple-choice, yes/no, or should use a scale of agreement to a statement, such as Strongly Agree, Agree, Disagree, Strongly Disagree, and Undecided. Your team should discuss what these answers mean and how they should be interpreted.

**Handout 2.8 - Sample resident survey**

This handout contains a generalized survey with a large bank of sample questions. An actual survey should be short enough for residents to complete in half an hour or less. Tell residents at the beginning of the survey how long it is realistically going to take to complete it.

**Interpreting and analyzing surveys**

The first step for the Assessment Team is to compile the data collected either automatically with a computer program or by hand. Someone familiar with computers and spreadsheets can design a simple data entry and analysis program, or you can also use programs such as Excel, StatView, SPSS, and SAS. Check accuracy of data entry at the beginning of the process, to correct mistakes early.

Analysis of questionnaire data by hand is relatively simple. Responses to questions can be tallied up and percentages calculated to determine average response rates. For example, if the number
of people who answered the question is 200 and the number of those who answered the specific response for “Strongly Agree” is 50, the percentage of people that “Strongly Agree” to the particular question is 25%. Since the questionnaire is designed to be easy to interpret and analyze, hand tabulation of the data should not be a problem. It is, however, slower than using a computer program’s more complex correlations which can give more detailed analysis such as “of the 25% that Strongly Agree, 80% feel tourism needs to be better planned.”

Other points to consider:
- What are the characteristics of those surveyed?
- Do they represent the larger population?
- What is the general response of the people surveyed? Are there any questions that generated responses that are overwhelmingly positive or negative, or are all the responses somewhere in between?
- Are there any obvious correlations between different questions?

**Exercise: Designing a resident survey**

*In small groups from each site, discuss the most important questions that should be on a resident survey for your area. Write them down, or mark on your handout which questions you would like to use. You can use these questions when you return to your site to perform an actual survey.*

**3. Community Mapping Meetings**

Community mapping is another tool for gathering information from stakeholders, this time focusing on the geographic relationship of resources in the community. In community mapping, stakeholders draw an illustrated geographical map to show the location of tourism and community resources and supporting infrastructure. This can help the team determine any gaps that need to be addressed. The process involves:

- Meeting with local stakeholders to draw a map that identifies where resources, activities and opportunities are located;
- Determining specific problem areas and potential for improvement;
- Open and intensive community discussions on tourism resources, activities, potential problems, and opportunities.

The resulting map shows the assessment team and stakeholders where tourism resources, activities, problems, and opportunities are located; the dimension and scope of issues – social, cultural, economic – and their relationships to biodiversity. It helps in understanding the boundaries and characteristics of the community involved or targeted for tourism development.

Community mapping is most effective in areas where there is clear potential for tourism development and where the assessment team has an opportunity to have a general meeting with the majority of community representatives.

When planning a community mapping project, allow at least six hours.
Advantages of mapping
Community mapping has two major advantages. First is the map itself - it clearly shows where resources, activities, problems, and opportunities are located, as well as the dimension and scope of issues to be investigated. It verifies and expands upon the information collected in preliminary evaluations, and it adds details on specific characteristics – slope, drainage, vegetation, water, soils, and other resources.

Second, the discussion process of drawing the map usually elicits a wide range of additional information from participants. Discussions sometimes elicit issues that date back as far back as the oldest local residents’ representatives can remember, or were told by their parents and grandparents. The discussion is also a good opportunity for the planning team to ask community representatives about previous tourism trends and traditional community responses, the residents’ perceptions of that industry, etc.

Drawing conclusions from a mapping meeting
It is crucial that the planning team notice, and note down, the topics, opinions, comments and reactions of all participants in the meeting. These discussions will indicate what people consider socially, economically and environmentally important. The direction of the discussions is significant; even if people’s perceptions may be inaccurate, they may still show how the community views their situation. The very process of discussing the map items – location, impact on infrastructure and other services – will bring out important resource management issues that will help to prepare the community for sustainable tourism planning.

Exercise: Community mapping
In small groups from each site, conduct a community mapping project on acetate overlaid on the main map of the MPA. Mark down the locations of traditional community use of resources, and traditional boundaries, e.g. for fishing, land, or water rights.

(This will be a preliminary map, since you do not have all the relevant stakeholders with you to consult with. A full community mapping meeting should still be carried out once you return to your site.)

Community mapping may reveal some of the same resources, infrastructure, and other features that MPA managers can map on their own using the Attractions and Infrastructure inventories that we will investigate next. However, it will also often include additional information on historical community use of those resources – current fishing areas, traditional boundaries, historical areas of different fisheries, etc. Furthermore, community members usually have further information about attractions, infrastructure, and accessibility that may not be known to MPA staff.

2.4 Attractions Inventory
An essential step in assessment is to evaluate what, exactly, your MPA has to offer to potential tourists, and of what infrastructure and capacity the MPA and local area have to accommodate tourists without draining local resources. The community mapping exercise you just completed should have given you a good overall picture of potential attractions and existing infrastructure. Let’s focus now in more detail on the attractions. It is essential to get a clear and precise picture of everything the MPA has to offer to potential tourists.
Exercise: Attractions Inventory

Each MPA team set up at a different table. Take out any maps of your MPA that you have with you, including the mapping project you did yesterday, and spread them out on the table to use during your inventory. Choose one map as your main working map. If possible, it should show not only the MPA but also any nearby communities - i.e. other places that tourists might go before or after visiting the MPA. You will mark the locations of attractions and infrastructure of different acetate overlays that you can place on top of this map.

Read the instructions below before you begin. The “Attractions Inventory” handout as your main worksheet to do the attractions inventory, and the "Ranking Attractions" handout to help rank the major attractions.

Step 1: Listing Your MPA’s Attractions

Use the worksheets to list the attractions in your MPA and make notes about each. The worksheets are standardized; modify them as needed to suit your MPA. Scan the categories below for ideas about what features in your MPA may qualify as tourist attractions. (These are suggestions only, not a complete list; you may discover other types of attractions in your own MPA.)

**Natural Attractions:** Physical features such as landscapes, lakes, forests, parks, beaches, caves, waterfalls, climates; and biotic features such as unique and endangered species, birds, reptiles, and other animals. Biodiversity and nature in general can be big tourism attractions.

**Cultural Attractions:** Examples of traditional lifestyles (e.g. public markets), rituals, religious ceremonies, festivals and other large events, chieftaincies, arts and crafts, music, dances, traditional cuisine, and local economic activities such as fishing, farming and salt preparation. These attractions are particularly important because not only do they draw tourists, but they also allow the tourist to learn about and support the local culture.

**Historic and Heritage Attractions:** Forts, castles, museums, churches, mosques, temples, distinctive architecture, archaeological sites, monuments, burial grounds, birthplaces/homes of famous people, early settlements, historic town centers and districts, landmarks, missions, shrines, churches, historic tours. If culturally acceptable, sacred places can also be included.

**Recreational Activities:** Boating, trekking, mountain climbing, hiking, camping, biking, river rafting, diving, snorkeling, wildlife viewing, bird watching, picnicking, sunbathing, relaxing, swimming, and playing sports and games.

Step 2: Mapping Attractions

To assess the relationship of all the attractions to each other, and the feasibility for tourists of traveling from one attraction to another, **mark the location of each attraction on an acetate overlay, so that you can move it on and off of the map.** The easiest approach may be to do
this by hand in pencil and use highlighters for color-coding. Later, the maps can be scanned into electronic format for purposes of reporting. GPS and GIS technology, if available, will greatly speed up this process.

Bear in mind that a “secondary” attraction may still draw tourists if it is near a “primary” attraction. (Primary attractions are those that can cause tourists to plan an entire trip just to see that attraction. Secondary attractions will usually draw tourists only if they are already in the area for some other reason.) An example of this is Victoria Falls in South Africa, which is a primary attraction, meaning that tourists will plan a trip just to see Victoria Falls. However, once tourists arrive, they often stay a few days more to enjoy cultural events and safaris in the adjacent national park. Identifying and “packaging” primary and secondary attractions together can result in tourists lengthening their stay and having a greater economic impact. Inspect your map to see if secondary attractions at your MPA are within easy travel of a primary attraction.

**Step 3: Rank and Evaluate Attractions**

Using the worksheets, evaluate and rank the attractions for their potential to attract and draw in tourists. This will give your team a preliminary idea of the tourism development potential based on attractions in the area.

The following criteria may help evaluate the attractions:

- **Uniqueness**—How unique is the attraction? For instance, if it is a mountain lake or beach area, is it the only mountain or beach in the local area? Is there potential for it to draw international visitors or domestic visitors? Is it a primary or secondary attraction?

- **Aesthetic or Scenic Value**—This is a subjective measure. A scene can be appealing for different reasons - some scenes are dramatic, some are peaceful, and some are culturally or environmentally interesting. Consider vibrancy of colors, drama of landscape, distinct architectural or artistic values, and uniformity or contrasts in geological formations or the built environment. For example, consider the rich greens of a healthy rainforest as opposed to the consistent patterns of agricultural fields, brightly colored traditional houses of red clay or paints versus gray concrete buildings, or mangrove-lined lagoons with reflective waters versus brown-gray waters of a stagnant pond. Also consider cleanliness, lack of litter or graffiti, air quality and traffic noise.

- **Biodiversity**—Rate both flora and fauna on their rarity and uniqueness, and evaluate the possibility of viewing species. If animals are difficult to see, their tracks and other signs of their presence will still be interesting, although less so than actual sightings. Confirm with local experts and biologists the names of the species that exist in the area. Nature tourists typically love to see whales and other marine mammals, sea turtles, large breeding colonies of seabirds or pinnipeds, colorful tropical birds, and colorful reef fish. Birdwatchers will travel thousands of miles to see rare birds - but only if they know there is a high probability of actually seeing the bird. Also check with experts and the World Conservation Union’s (IUCN) endangered species lists to see any of your species are threatened and might need protection from tourist disturbance.

- **Cultural Value**—Consider whether attractions demonstrate the traditional lifestyle of a vibrant culture; any high-quality art and handicrafts that are unique to the area; and traditional festivals, dances and music. The authenticity of a cultural attraction is of great importance.

- **Historical Value**—Consider age, maintenance, artistic or architectural significance, its physical magnitude, and its cultural importance. Historical attractions that are mostly intact, well-understood, and that have understandable interpretive materials (signs, brochures) in several
languages will have greater potential draw.

- **Uses and Activities**—What activities could a tourist do? How do the different uses or potential activities rate for each attraction? For example, a beach may rate high if it offers activities that are very attractive to the nature tourist, such as turtle watching, swimming, or scuba diving. Or, a certain trail may offer excellent opportunities for bird-watching or wildlife viewing.

- **Community Participation**—How could the community participate or benefit from tourist activity at the attraction? For instance, a lodge might be able to employ 30 people and implement a boat tour that employs one or two people. Does the community have the capacity to participate - i.e. does it have fishermen with boats equipped to transport passengers? For cultural attractions, are community traditions still widely practiced?

- **Ability to Control Tourism at the Site**—Is the area largely public space? Who lives there, what permits are needed to use the land, and is there potential for clashes?

- **Access**—How easily can one get to the attraction? How long a walk is required to get to a beach or a trailhead? How often does a cultural activity occur?

- **Product Development**—How developed is the attraction? What would be involved in fully developing the attraction or product? For example, does the area need to be cleaned up? Is pollution an issue? What type of infrastructure might be needed such as accommodations, signage, access roads or trails? Perhaps the attraction is partially developed. For instance, an arts and crafts shop that already exists may simply need better inventory and an increased marketing effort.

2.5 INFRASTRUCTURE & CAPACITY INVENTORY

Now that you have a good picture of the potential tourist attractions in your area, let’s consider whether your MPA and the local community has sufficient infrastructure to handle tourists. What development would need to occur before sustainable tourism could begin? Would tourists have high-quality food, lodging, and transportation? Do tourist attractions need refurbishment or explanatory materials? Do guides and boats exist for specialized tourist activities for such activities as scuba diving, bird watching, fishing, etc.?

An essential part of this process is keeping in mind the carrying capacity of your MPA - how many tourists can come without disrupting or destroying the resources? How much fresh water is available, for example, and can the area handle the sewage outflow from cruise ships or large hotels? (We will discuss carrying capacity in more detail in later modules.)

Exercise: Infrastructure & Capacity Inventory

You will spend the next hour discussing the infrastructure of your MPA and local environment in these key areas:

1. **Transportation & accessibility**
2. **Public services** (police, electricity, water, sewage, etc.)
3. **Environmental quality** (air quality, etc.)
Following the guidelines and questions in handout 2.10, make a new acetate overlay for your MPA’s infrastructure. (You may wish to make different overlays for the different types of infrastructure. You can also assess infrastructure of any nearby communities, if you have sufficient information.)

Keep in mind that this information will form part of the basis for your tourism development decisions. For instance, your team might propose a different type of product if they find that there is not enough water to supply tourist facilities.

Additional information can be obtained using the following inventories:

- Handout 2.13 - Supply and Competitiveness Inventory
- Handout 2.14 - Labor Inventory

### 2.6 ASSESSING TOURISM’S FOOTPRINT

This is one of the most important assessments that the team will conduct. The goal is to anticipate the environmental impacts of tourism development. This will form a key element of your tourism assessment – one that determines whether to proceed with a project or product.

It is important to remember that it is not the team’s role to “sell” particular concepts of tourism development to the community. Your role is to objectively analyze the information gathered throughout this assessment, flag potential issues and address opportunities for improvement. These considerations should then be used to guide what type of tourism development, if any, is appropriate.

**Understanding Potential Environmental Benefits**

As we have seen in other modules, tourism can result in substantial benefits to MPAs and local communities. Many of these benefits translate into benefits to the environment as well:

- **Financing for Conservation**—Revenues can be allocated to biodiversity conservation efforts through several mechanisms, including parks fees, lease fees and concessions, taxation, grants, and traveler donations.
- **Economic Alternatives**—Providing job creation and income generating activities to local communities as an alternative to more destructive livelihoods, such as slash and burn agriculture, over-fishing and illegal logging.
- **Constituency Building**—Local communities that benefit from tourism development are more motivated to conserve their unique natural and cultural heritages.
- **Impetus for Private Conservation**—Tourist demand for scenic, pristine natural surroundings and opportunities for wildlife viewing can provide an impetus to private investors to conserve areas in order to meet this demand.

However, poor planning or explosive growth of tourism can overwhelm natural resources and community infrastructure. For example, poorly planned tourism products can disturb wildlife habitats, degrade watersheds and pollute water systems, as well as add to solid waste management issues.
Understanding Negative Environmental Impacts

To guide research on potential negative environmental and biodiversity impacts, focus on the following key areas and questions. This list is simply a starting point to spur ideas - you might think of additional questions applicable to your area.

**Flora and Fauna**—Are there threatened plant, bird, mammal, reptile, amphibian, and fish species in the destination? Where are their habitats? Why are they threatened? What is their relationship to tourism; i.e. do these species occur in potential tourism development areas? Are they also tourist attractions? In these cases, noisy crowds of tourists viewing wildlife could disrupt feeding and breeding cycles resulting in higher mortality rates and major decreases in population growth.

**Critical Habitats**—Which areas form critical habitats, why are these critical and how might tourism impact on them? Often animal species are threatened because their habitats are being lost. Especially problematic is loss of breeding, nesting and feeding grounds as a result of agriculture expansion, logging and other forms of human development. Some critical habitats may already be identified as such by being designated as nature reserves and sanctuaries, parks, protected areas, and core/intangible zones within established protected areas. Research and interviews with local experts will help identify those areas that aren’t already protected and need to be considered.

**Functioning Ecosystems**—Tourism, along with human development, tends to occur in some of the most biologically diverse ecosystems. Coastal areas, rivers and lakes, mountains, rainforests, wetlands and grasslands are all popular recreation areas. Issues to consider include disruption of ecological processes and intricate dependencies among flora, fauna and physical attributes. For example, noise and lights which may prevent sea turtles from nesting on a beach; the clearing of vegetation along a river bank to improve the view causes soil erosion and destroys fish and frog habitats; and scuba divers and snorkelers damage reefs, thus killing critical breeding grounds.

**Biological Corridors and Physical Landscapes**—Ensuring enough habitats for territorial and migration patterns and adequate access to food is critical to larger mammal species such as elephants, jaguars, or marlin. Tourism development can interrupt connecting areas of mountain systems, valleys, plains, and rainforests. For example, roads can pose barriers to some species like turtles, frogs and crabs; and oncoming traffic can result in the death of migrating species. At the same time, tourism can be planned to reduce fragmentation by increasing protection of an area from more destructive forms of development such as logging.

**Water**—Clean, unpolluted water sources from rivers, lakes, lagoons, and water catchment areas are important to all forms of biodiversity including tourists visiting a region. What are the main water resources for existing populations? Are they adequate? Are they well protected? What current issues exists with water supply? Would additional tourism exacerbate these issues, i.e. by causing pollution of precious resources or demand outweighing supply.

**Energy Resources**—In most areas, energy supply is an issue, which tourism can easily exacerbate. This can cause wider environmental issues such as air pollution from coal produced electricity. It can also lead to localized impacts on biodiversity. For example, in many areas overuse of fuel wood will lead to deforestation and loss of sources of food and important breeding sites for many bird and animal species. Further, discharges from the use of fuel such as oil, gas and diesel can overwhelm freshwater and marine habitats.

**Waste Management Systems**—Are the current systems adequate to safely dispose of sewage and solid waste? Can they handle any additional demand? In many regions, waste management systems do not have the capacity to effectively treat and dispose of solid waste and sewage.
Does tourism pose a real danger to overwhelming existing systems and thus the natural environment? Unfortunately, tourism activities often produce significant amounts of waste and the assessment team will need to consider a range of potential issues regarding wastewater, sewage treatment and solid waste.

**Wastewater** comes mainly from washing, toilets and runoff. It can pollute water sources with dangerous bacteria such as fecal coliform causing disease and infection or chemicals from detergents, herbicides and pesticides killing freshwater and marine species.

**Poor sewage treatment** can lead to pollution of ground and surface water and degradation of marine resources, such as coral reefs.

**Solid waste** is often collected in poorly designed waste dumps or discarded directly into oceans, rivers and lakes. Besides being visually unappealing, improperly disposed waste can leach contaminants causing severe water and soil pollution. Contaminants from toxic items such as paint cans and batteries are especially dangerous. Dump sites often breed flies, which spread disease in nearby communities, release offending odors, and can result in toxic fires.

**Littering**, especially in natural areas, can attract wildlife, exposing them to injuries and diseases, such as birds and fish attempting to ingest cigarette butts.

**Development and Construction**—What are the potential issues regarding the actual construction of facilities and infrastructure? Are there issues with sourcing building materials? What measures may need to be taken when developing sites? Tourism often has the highest impact on the environment and biodiversity during the development and construction phase. In many countries, developers often clear land of vegetation and trees in order to complete the boundary survey and prepare sites for construction. Critical nursery areas for many marine species are destroyed by clearing mangroves and filling in wetlands in order to create more land and beach areas. Shoreline development causes erosion, reducing water clarity and smothering reefs. Often building materials may be sourced from the local area. For example, logging for wood may cause deforestation, “sand mining” or sourcing gravel and stones from rivers and beaches cause major changes to the physical environment.

**Introduction of Invasive Species**—What are the current issues with transportation of exotic animals and plants? Often customs authorities, forest and agricultural departments will have information on key issues. Invasive species are perhaps the largest threat to biodiversity. They are non-native species of plants and animals that when introduced to an area become predators and/or compete for precious food and nutrient sources. Tourists can inadvertently introduce invasive species to an area. Often tourists will acquire exotic plants and animals and carry them to non-native habitats. Tourists may also transport fruit and vegetables that may host invasive species of insects.

**Sources Of Information**
The tourism footprint assessment begins by researching existing literature on tourism’s potential environmental impacts and threats to biodiversity. By exploring secondary sources, the team will be able to get a picture of key environmental and biodiversity issues in the destination. Research on specific impacts related to tourism, however, may not be as readily available. The combination of the team’s assessment so far on tourism development in the destination and local area expert opinion should provide a good basis to create a matrix of tourism’s potential environmental and biodiversity footprint.
Note that the second page of this handout contains examples of questions to ask environmental experts.

**Adding it all up: using a Footprint Matrix**

To keep track of the overwhelming diversity of potential environmental effects, use a “footprint matrix” to fill in possible costs and benefits of tourism development.

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**Exercise: Footprint Analysis**

Complete a footprint analysis for your MPA, using the information that you have developed in the other tools used today.

Review the matrix to help decide whether tourism development overall would likely be a benefit or a cost to the area.

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**Exercise: The Big Picture**

Each MPA team should now have a good idea of the attractions, infrastructure, and vulnerabilities of their own local area.

Each small group select one person to briefly present (5 minutes) their conclusions to the whole group.

Now, working in a large group, set up a map of the South China Sea that is large enough to include all MPAs of all participants in the group. Mark the location of each MPA on it. Have one person list the MPAs on a poster board, and note briefly each one’s unique attractions and features. Mark the locations of major air, roads, and ferry service. Mark the locations of other major attractions.

Identify places where attractions occur close together and could be marketed to tourists as part of a single tour package. How do your ideas connect with the tourism vision for the Southeast Asian coast that you developed yesterday?