# Guidelines for Integrating Human Dimensions into MPA Planning and Management

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*Prepared by*

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# SECTION A

## THE GUIDELINES

- Background: Human dimensions of MPAs

- Steps for identifying, understanding and integrating human dimensions into MPA planning and management

- Key considerations for implemenation

# BACKGROUND:
# HUMAN DIMENSIONS OF
# MARINE PROTECTED AREAS

## 1.1  What are human dimensions and why consider them?

Marine protected areas (MPAs) are increasingly being used as a tool for the achievement of conservation, biodiversity and fisheries management objectives around the world. This is in response to growing concerns about the state of coastal and marine resources and the ongoing threats posed by environmental and climate change, industrial and property development, mining activities, recreational pressures, overexploitation of resources, pollution and poverty. However, many of these MPAs have been established, planned and managed with little consideration of the *human* dimensions and impacts. This includes social, cultural, economic, political and governance issues, such as human values, aspirations, lifestyles, cultural heritage, livelihoods, local economic activities and governance systems. In particular, very little attention has been given to how MPA planning and management affect local-resource-dependent communities and other stakeholders. These human dimensions need to be considered alongside ecological issues.

Increasingly, researchers, conservation planners, managers and communities are calling for a more people-centred approach to MPA planning and management, recognising that conservation and fisheries management objectives will *not* be realised unless human dimensions and societal concerns are adequately addressed. This will require partnerships between government, communities, non-governmental organisations (NGOs) and other stakeholders to tackle the human dimensions of MPAs. Failure to address these concerns may undermine MPA objectives and benefits. However, if planned and managed in a participatory and integrated manner, taking the values, rights, needs and concerns of local communities and other stakeholders into account, MPAs can provide a range of benefits for local communities, local economies, conservation, fisheries and the natural environment.

*When designed appropriately, MPAs can deliver conservation benefits such as the protection of habitats, biodiversity and threatened species as well as socio-economic benefits such as increased tourism revenues, local fish catches and job opportunities. While many fisheries scientists have argued that MPAs will promote sustainable fisheries and enhance fish yields, there are differing views on the efficacy of MPAs as a fisheries management tool. Nonetheless, there is general consensus that MPAs and MPA networks have a role to play in enhancing conservation and fisheries management efforts, and thus, incorporating the human dimensions into the design, planning and management of these areas is critical to their success.*

An ecosystems approach is adopted in these guidelines, which requires the consideration of both the human and ecological dimensions in MPA planning and management. While the primary focus of the guidelines is on the *human* dimensions, as these have not been adequately addressed in the literature or in practice in South Africa, it is important to understand clearly that the guidelines highlight the need to consider and integrate both the ecological and human dimensions of MPAs throughout the steps identified.

The **aim** of these guidelines is to provide an understanding of the **human** dimensions of MPAs as well as guidance on how **human** dimensions can be understood and integrated into MPA planning and management processes.

## 1.2  Who should use these guidelines?

These guidelines have been developed specifically for protected area managers and conservation authorities. However, others involved in conservation planning and management, more generally, or tasked with facilitating a stakeholder engagement process including government agencies and officials responsible for aspects of MPA management, research agencies (e.g. the South African National Biodiversity Institute and universities), NGOs working with local communities or specific stakeholder groups (e.g. recreational users), local communities living in or adjacent to declared or proposed MPAs, traditional authorities, municipal officials, consultants, private sector stakeholders and civil society groups that have an interest in or may be affected by an MPA, may also find them useful. The guidelines are intended to be used by any person or organisation that wishes to gain a better understanding of the human dimensions of MPAs – what they are and how they can be better incorporated into MPA planning and management.

## 1.3  Structure of the guidelines

These guidelines are presented in two sections:

❖ **SECTION A** deals with understanding human dimensions and the steps and processes required for identifying, understanding and integrating human dimensions into various stages of the MPA planning and management cycle.

❖ **SECTION B** contains supporting information including (1) factsheets that provide information on a set of human dimensions that may be relevant to a particular MPA context; and (2) a list of key references and recommended readings on topics covered in these guidelines.
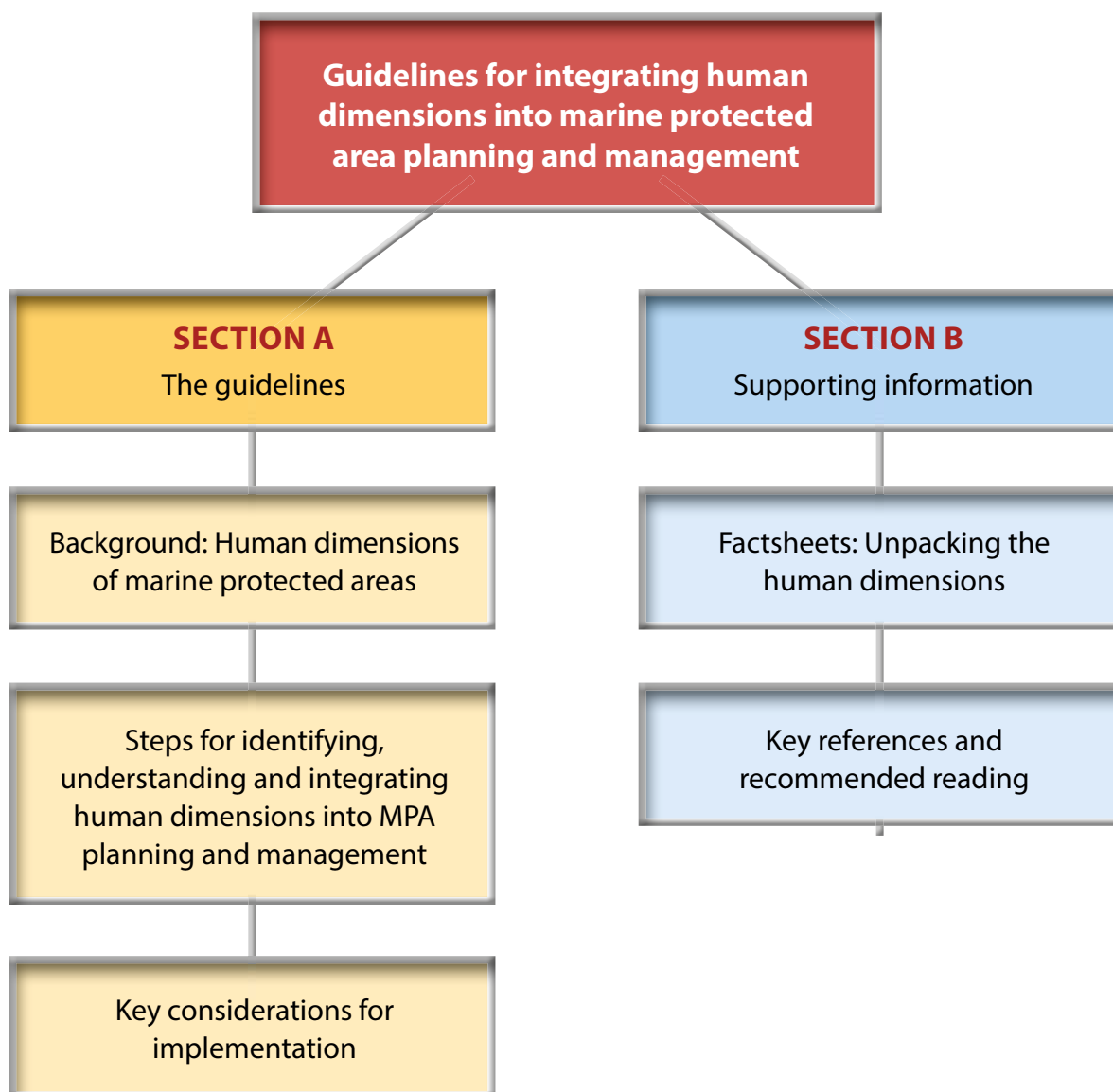
**FIGURE 1** Structure of the guidelines

## 1.4  International and national policy frameworks and obligations

MPAs and MPA networks are increasingly recognised across the world as an important strategy for protecting marine resources, conserving biodiversity, rebuilding threatened fish stocks and restoring degraded habitats. The value of and need for MPAs have been discussed at various global gatherings such as the World Summit on Sustainable Development in 2002 and the Fifth World Parks Congress in Durban in South Africa in 2003, as well as various Convention on Biological Diversity (CBD) meetings. Furthermore, several conservation and fisheries development agencies (e.g. the International Union for Conservation of Nature (IUCN), World Commission on Protected Areas, United Nations Food and Agricultural Organisation (FAO) and World Wide Fund for Nature (WWF)) have also called for action to speed up the process of marine protection and have encouraged governments to establish MPAs and MPA networks. Various conventions, protocols and agreements, such as the Convention on Biodiversity (1993) and its associated Programme of Work on Protected Areas, the FAO Code of Conduct for Responsible Fisheries (1995) and the Reykjavik Declaration on Responsible Fisheries in the Marine Ecosystem (2001), all recognise the importance of the conservation of coastal and marine resources and areas, but they also highlight the need to take account of the human dimensions in planning and management, with a particular focus on understanding the needs of those communities living in or adjacent to such areas.

States should ensure that an appropriate policy, legal and institutional framework is adopted to achieve the sustainable and integrated use of resources, taking into account the fragility of coastal ecosystems and the finite nature of their natural environment and the needs of coastal communities
*(Article 10, FAO Code of Conduct, 1995).*

The Convention on Biological Diversity Programme of Work calls on Parties to achieve full and effective participation of indigenous and local communities, in full respect of their rights and recognition of their responsibilities, consistent with national law and applicable international obligations, and the participation of relevant stakeholders in the management of existing, and the establishment and management of new, protected areas *(Target 2.2).*

Consideration of a number of other more socially-oriented international instruments (see factsheet on Policies and Laws), such as the International Labour Organization Convention C169 and the United Nations Declaration on the Rights of Indigenous Peoples of 2007, is also necessary when planning and managing MPAs. While these instruments are not specific to MPAs, they deal with the rights and socio-economic realities of local and indigenous communities that may live in or adjacent to MPAs or be affected by the closure of nearby areas used for gaining access to food or in securing a livelihood, or important for spiritual or cultural purposes. Consequently, the principles and provisions contained in these instruments need to be taken into account in any planning, management or decision-making process that may affect the lives of such peoples.

*A key message emanating from a range of international instruments is that human rights, including social, economic and cultural rights and needs, must be taken into account by all organs of state in planning and decision-making. This includes decisions relevant to the entire MPA planning and management cycle process.*

*A key challenge is how to balance human rights with conservation objectives in a world where pressure on natural resources is increasing and disparity between rich and poor is widening.*

South Africa has committed itself to many conventions, protocols and agreements relevant to MPAs and has promulgated policies and legislation to give effect to these instruments. The Constitution of South Africa (1996) contains environmental provisions in its Bill of Rights that require the balancing of ecological sustainability with socio-economic rights and needs. Several environmental policies and laws have a bearing on how MPAs are identified, planned, managed, monitored and governed: they include the National Environmental Management Act (1998), which sets out the framework for how the environment should be managed, and the Marine Living Resources Act (1998), which embodies the legal mandate for establishing and managing MPAs in South Africa, as well as the National

Environmental Management: Protected Areas Act (2003), Biodiversity Act (2004) and Integrated Coastal Management Act (2009). These laws, while concerned with promoting environmental conservation and management, all require that various social sustainability principles, including equitable access to resources, sharing benefits from protected areas and the active participation of indigenous peoples, local communities and civil society more broadly, be upheld in planning, management and decision-making processes. A key requirement in all cases is the consideration of human rights and needs, especially in light of the need for redress, when pursuing environmental, conservation and fisheries management goals.

## 1.5  MPAs in South Africa

MPAs cover approximately 21.5 per cent (785 km) of South Africa's 3000 km coastline (DEA, 2012), and "no-take" zones comprise 9.1 per cent (344 km). The 21 MPAs within the in-shore zone consist of a continuum of categories ranging from complete no-take MPAs (three nationally) to those with multiple zoning including sanctuary no-take areas, areas reserved for restricted sustainable use by commercial rights holders only and areas reserved for recreational and sustainable use by commercial rights and permit holders. South Africa has developed a National Protected Areas Expansion Strategy that sets ambitious targets for MPAs. This strategy aims to have 25 per cent of the coastline declared MPAs by 2028, including 15 per cent of the in-shore coastal area that would become no-take zones (RSA, 2008).

In order to meet these MPA targets, various government departments and parastatals responsible for environmental and conservation management – including the Department of Environmental Affairs (DEA), the Department of Agriculture, Forestry and Fisheries (DAFF), South African National Parks (SANParks), the Eastern Cape Parks and Tourism Agency (ECPTA), Ezemvelo KwaZulu-Natal Wildlife (EKZN Wildlife) and CapeNature – as well as research agencies and institutions, in particular the South African National Biodiversity Institute, are engaged in gathering information, undertaking biodiversity assessments, consulting with stakeholders and developing conservation plans to assist in identifying areas that may be suitable for declaration as MPAs and to provide up-to-date information for management. However, these processes have been mainly informed by information from the natural sciences and the approach to planning has been largely technical and top-down, often with significant negative impacts for local communities.

## 1.6  New thinking and approaches to biodiversity conservation and fisheries management

Increased recognition of the shortcomings of conventional approaches to natural resource management has led to a significant shift in thinking about approaches to conservation and fisheries management.

# Shifting concepts and approaches in natural resorce management

| FROM | TO |
|------|-----|
| Single-species approach | Ecosystem approach |
| Bio-physical focus | Holistic and people-centred |
| Scientific knowledge | Incorporate other knowledge systems |
| Centralised | Decentralised and devolved |
| Command and control | Enabling, empowering |
| Regulatory | Incentive-based |
| Sectoral | Integrated and co-ordinated |
| Technocratic | Participatory |
| Technical solutions | Context specific solutions |
| Blueprint | Adaptive, learning process |

FIGURE 2  Shifting concepts and approaches in natural resource management

In particular, the concept of an **ecosystems approach**, which promotes a more holistic, systems-orientated and participatory approach to planning and management has been adopted and recommended by various conservation and fisheries management agencies, including the FAO, IUCN and WWF.

An ecosystems approach requires consideration of biophysical, socio-economic and governance dimensions in natural resource planning, management and decision-making and recognises the critical importance of understanding the system as a whole, as well as the linkages between the ecological and human dimensions.

## Human-ecological system



**HUMAN SYSTEM**
social
economic
cultural
political
governance

**ECOLOGICAL SYSTEM**
species interactions
resource abundance
population dynamics
water quality
recruitment success
habitat integrity
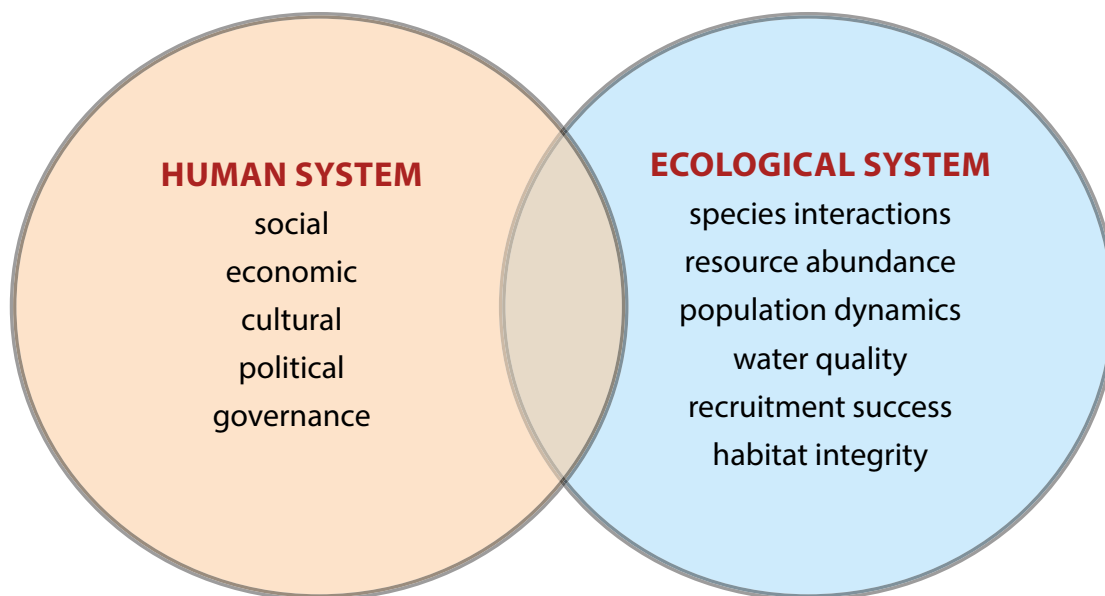
**FIGURE 3** The human-ecological system

In the context of fisheries, the FAO has defined an ecosystems approach to management as follows:

> *An ecosystem approach to fisheries (EAF) strives to balance diverse societal objectives, by taking account of the knowledge and uncertanties of biotic, abiotic and human components of ecosystems and their interactions and applying an integrated approach to fisheries within ecologically meaningful boundaries (FAO, 2003: 14).*

Another approach that has been gaining acceptance in the conservation and natural resource management arena is the **human rights-based approach** (Campese et al., 2007). This approach recognises that environmental health is a prerequisite for ensuring the achievement of a range of guaranteed legal rights, including human rights, and that an awareness of and respect for such rights will lead to support and improvement of conservation efforts. Consequently, the rights and needs of local communities and other stakeholders must be respected and taken into account in planning, management and decision-making relevant to MPAs. Recognition of human rights and the socio-economic needs of poor and marginalised communities in particular is increasingly being integrated into policies, legislation and management protocols governing natural resource management and conservation in many countries, including South Africa.

The human dimensions, including people's rights and needs and the potential costs and benefits of MPAs, therefore need to be explored and understood prior to decision-making. Only if local communities feel that their rights and needs are understood and addressed will they be able to support conservation measures such as MPAs and work collaboratively with the management authorities to minimise losses and enhance potential benefits. This requires the relevant planning and conservation authorities to actively demonstrate their awareness of and understanding of the rights, key values and needs of local communities.

Addressing human rights and socio-economic needs as well as conservation objectives will be challenging especially in a world where pressure on resources is increasing, environmental and climate change is occurring and disparity between rich and poor is widening. **These guidelines seek to provide guidance on how these often competing rights and needs can be negotiated in a fair and equitable manner**.

These guidelines thus seek to clarify what is meant by HUMAN dimensions, what methods and tools can be employed to understand them and what steps must be followed to incorporate them into MPA planning and management.

# Satoyama and Satoumi integrated management in Japan



Satoumi Photo: *Go Tubinuki*

The Japanese have evolved an approach to the management of both land and marine and coastal ecosystems that integrates human settlement and sustainable use of these ecosystems into their management practice. Satoyama is a Japanese term that describes a mosaic of landscapes and different types of ecosystems – secondary forests, farmlands, irrigation ponds and grasslands – which, managed together with human settlements using these resources, produce bundles of ecosystem services for human well-being. The concept of Satoumi similarly refers to the management of marine and coastal seascapes in an integrated way that links such systems to the surrounding human settlements and upstream terrestrial ecosystems. These landscapes and seascapes have been changing rapidly, and the ecosystem services they provide are under threat from various social, economic, political and technological factors. This integrated, holistic approach recognises the need for protected areas to be fully integrated into the development and functioning of any socio-ecological system. The approach requires co-ordinated planning and co-operative governance (UNU, 2013).

## 1.7 Our approach to the guidelines

These guidelines have been informed by a vast literature on MPAs as well as existing guidelines for their management and evaluation (see Key References and Recommended Reading in Section B). They are also informed by a three-year research project titled "Understanding and integrating human dimensions into MPA planning and management", which included empirical research in several MPAs in South Africa, as well as coastal areas in this country that are being considered for MPA designation. Our approach has been guided by the findings of the research project, an extensive international literature search, and interaction with MPA managers and conservation authorities, as well as the principles and approaches articulated in the many international instruments relevant to MPAs, including the ecosystems approach (FAO, 2003) and the human rights-based approach to conservation and fisheries management (Campese et al., 2007). *These approaches seek to balance conservation and fisheries management interests with the rights and socio-economic needs of local communities and other stakeholders.*

These guidelines pay particular attention to coastal contexts where small-scale fishers and fishing communities use and value coastal and marine areas and resources for a variety of purposes. Many of these communities are poor and have been marginalised through past discriminatory political processes in South Africa. Increased awareness of the multi-faceted nature of poverty, marginalisation and vulnerability in such fishing communities therefore requires a multi-dimensional and multi-disciplinary approach in order to understand and respond to the human dimensions in these contexts.

While different MPA management agencies in South Africa adopt slightly different approaches to the planning, management and review of their MPAs, most have adopted the Management Effectiveness Framework (Hockings et al., 2006), although in practice the focus tends to be on the implementation, monitoring and evaluation stages of this process.

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**Management effectiveness** is concerned with evaluating the extent to which management is protecting MPA values and achieving goals and objectives. The term management effectiveness comprises:

❖ Design issues relating to both individual and protected area systems
❖ Adequacy and appropriateness of management
❖ Delivery of protected area objectives including conservation values

Its focus is on assessing and evaluating management performance against a set of criteria and acting on evaluation to improve management practice (Hockings et al., 2006).

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Figure 4 provides an overview of the Management Effectiveness Framework as well as the kinds of questions that would need to be addressed at each stage of the process, and highlights the points at which human dimensions should ideally be considered and integrated.

**Human dimensions**
e.g. extent of illegal activity in MPA

**Human dimensions**
e.g. monitor household income of affected local communities

**Understand the context: status and threats**
Where are we now? What do we know? What threats to system?

**Human dimensions**
e.g. engage stakeholders, identify attributes such as sites of heritage value

**Monitoring and evaluation**
What are the impacts and outcomes? Are goals and objectives being achieved? What do we need to change?

**Initiate planning**
Who should be involved? Where do we want to be? (vision)

**Management implementation**
Is our approach practical and supported? Are plans and strategies implementable?

**Gather information and inputs**
What information do we need? Who will collect info and how? How will different knowledges be addressed?

**Human dimensions**
e.g. allow access in designated zones

**Assessment and evaluation**
What does the data mean? What alternatives would best serve the vision? What strategies required?

**Human dimensions**
e.g. gather data on livelihoods of local communities

**Human dimensions**
e.g. evidence of customary use so consider rezoning

FIGURE 4  Illustrative planning and management cycle process

Guidelines for integrating Human Dimensions into Marine Protected Area Planning and Management

*The figure highlights the fact that HUMAN dimensions are relevant throughout the planning, management, monitoring and evaluation process – whether one is embarking on a planning process, carrying out an analysis to understand the current threats and challenges to an MPA, conducting ongoing monitoring, undertaking an annual review or evaluation, or preparing a management or operational plan for the area.*

Having an holistic understanding of the entire human-ecological system will enable MPA managers and conservation authorities (e.g. DEA and DAFF), local communities and other stakeholders to make informed choices and decisions that serve the interests of the people and the environment.

These guidelines do not propose a new planning process. Rather they approach the integration of the human dimensions as part of the planning and management processes that conservation agencies routinely follow. They should be integrated into the existing processes that to date have focused primarily on ecological processes and environmental objectives and outcomes. They are part and parcel of these outcomes but have tended to be the "hidden dimension".

## 1.8  Understanding the range of human dimensions

The term "human dimensions" here refers to the social, economic, cultural, political and governance (including institutional) aspects that need to be taken into consideration in MPA planning and management processes. These human dimensions have generally been given limited attention by policy makers and MPA practitioners.

Figure 5 presents a list of human dimensions that is based on a review of the literature, and various socio-economic, cultural and governance guidelines prepared by research, development and conservation agencies, as well as dimensions encountered in several case studies that have informed this set of guidelines. The human dimensions have been clustered in five main themes – social, economic, cultural, political and governance (including institutional) – and each theme contains a number of more specific human dimensions associated with that theme. For example:

❖ The **social dimension** involves consideration of gender, ethnicity, religion, social cohesion, values, attitudes and perceptions regarding conservation, as well as people's goals and aspirations.
❖ The **economic dimension** focuses on livelihood practices, options and opportunities, as well as issues of poverty, food insecurity, employment, income and assets, livelihoods, access to markets and livelihood development. It also includes consideration of ecosystem goods and services.
❖ The **cultural dimension** is concerned with examining customary fishing practices and rights, including local and indigenous knowledge, which is important in ascertaining whether customary rights are relevant in a particular context. This theme also requires consideration of people's way of life, sense of place, culture and cultural heritage, and considers how communities have adapted to management interventions over time.
❖ The **political dimension** relates to issues of tenure and land ownership, equity and access rights, representation and legitimacy, how benefits and losses are distributed among stakeholders, and issues of politics and patronage.
❖ The **governance dimension** involves issues and elements such as community organisation and stakeholder participation, and how information flows and is communicated in a particular MPA context. Consideration of the enabling laws and policies for MPA planning and management, and the institutional arrangements governing MPAs, as well as the nature of enforcement and compliance, are also important issues to take into account.

Further information that explains each of these dimensions in greater detail is provided in the factsheets in Section B of these guidelines.

**SOCIAL**
- Gender, class, ethnicity
- Social cohesion and conflict
- Attitudes, perceptions, beliefs, values
- Goals
- Social vulnerabilities

**ECONOMIC**
- Poverty
- Sustainable livelihoods
- Employment
- Income and assets
- Markets and trade
- Food security
- Ecosystem goods and services

**HUMAN SYSTEM**
Social, political, economic, cultural and governance

**CULTURAL**
- Customary fishing practices and rights
- Traditional and local knowledge
- Sense of place
- Way of life
- Culture and cultural heritage
- History
- Spiritual practices and sacred sites

**POLITICAL**
- Equity
- Rights to access and manage resources
- Tenure
- Representation and legitimacy
- Benefits and losses
- Politics
- Patronage

**GOVERNANCE**
(including institutional)
- Community organisation
- Stakeholder participation
- Information flow and communication
- Policies and laws
- Enforcement and compliance
- Institutional arrangements

**FIGURE 5** The human dimensions of MPAs

Guidelines for integrating Human Dimensions into Marine Protected Area Planning and Management

It is important to emphasise that not all the human dimensions listed in Figure 5 will be relevant in all contexts. A key task of the process described in the following section is selecting those dimensions that require investigation and assessment. Thus, in considering and investigating human dimensions, it is important to realise that a 'one size fits all' approach is not workable, as each context is unique and may require consideration of a different set of human dimensions. It is therefore important for those involved in MPA planning and management to familiarise themselves with the range of human dimensions presented in Figure 5, as well as the factsheets in Section B of the guidelines.

> *It is crucial that policy makers, conservation planners, MPA managers, marine scientists and officials from relevant agencies recognise that these dimensions need to be considered, understood and addressed in the process of MPA planning and management in order to minimise negative impacts and enhance benefits from conservation areas.*

It is important to note that human dimensions associated with MPAs are often interlinked. For example, the level of poverty in a community may be related to historic factors (e.g. forced removals, deterioration of agricultural lands), management decisions (e.g. expansion of no-take zones) and current livelihood opportunities (e.g. none in the immediate vicinity of the settlement).

Furthermore, the costs and benefits that result from MPA management and decision-making will affect different stakeholders differently: some will gain and some may lose. For example, dependence on marine resources for food and livelihood may be linked to a community or individual's sense of identity and cultural heritage, and loss of access will have social, economic and cultural consequences. An association with key political players in a community may provide advantages when seeking to develop alternative livelihood opportunities (e.g. tourism enterprises) or engage in trade (e.g. certain buyers favoured over others through political patronage). It is therefore important for planners, managers and decision-makers to be aware of the complex nature of these MPA human-ecological systems and consequently adopt an holistic, integrated and multi-faceted approach that balances ecological goals with human considerations.

The next section of the guidelines provides a step-by-step approach to identifying, understanding and integrating human dimensions in every step of the MPA planning and management cycle process.

Guidelines for integrating Human Dimensions into Marine Protected Area Planning and Management

# STEPS FOR IDENTIFYING, UNDERSTANDING AND INTEGRATING HUMAN DIMENSIONS INTO MPA PLANNING AND MANAGEMENT

**2**

## 2.1 Introduction

Protected area managers, conservation authorities and their governance partners are involved in ongoing management and evaluation of MPAs, from initial planning through to the monitoring and evaluation stage. In most conservation agencies, planning and management processes are initiated by an individual or team within the managing authority, referred to here as the **Internal Planning and Management Team**. This team drives the planning process. Ideally it includes representatives of key stakeholder groups who are part of on-going management processes. However, for purposes of planning it will, in all likelihood, be expanded to include additional external stakeholders in a more collaborative **Joint Planning Team**.

This section of the guidelines provides a **step-by-step** framework that will assist those involved in planning and managing MPAs as they identify and address the human dimensions of MPAs in each step of the process.

At the South African MPA forum held at Kei Mouth in 2012, MPA managers and marine scientists identified the fact that many of the obstacles that their MPAs faced were related to the human dimensions of their MPAs.

## 2.2 When should the human dimensions of MPAs be considered?

Ideally, the identification and integration of the human dimensions should be undertaken at every stage of the MPA planning and management process. Whether the conservation authority is planning to establish a new MPA, undertake a strategic review or respond to a particular management challenge that has been identified through a management effectiveness assessment, the integration of the human dimensions perspective will enable a holistic and integrated planning and management process.

While human dimensions should be considered at the outset, the reality is that MPA planning and management vary across organisations and are conducted at different times in the life of an MPA. Entry points into the planning and management cycle will thus differ, and the trajectory that the process takes will depend on the nature and stage of the broader conservation planning processes that the particular conservation authority has adopted.

*The specific sequence of the steps undertaken will thus vary and may be iterative rather than sequential and linear. In some instances, certain stages will be undertaken in parallel, as the management cycle is a continuous, non-linear, complex process with many interacting dimensions.*

Figure 6 sets out a step-by-step approach to integrating human dimensions in the MPA planning and management process.
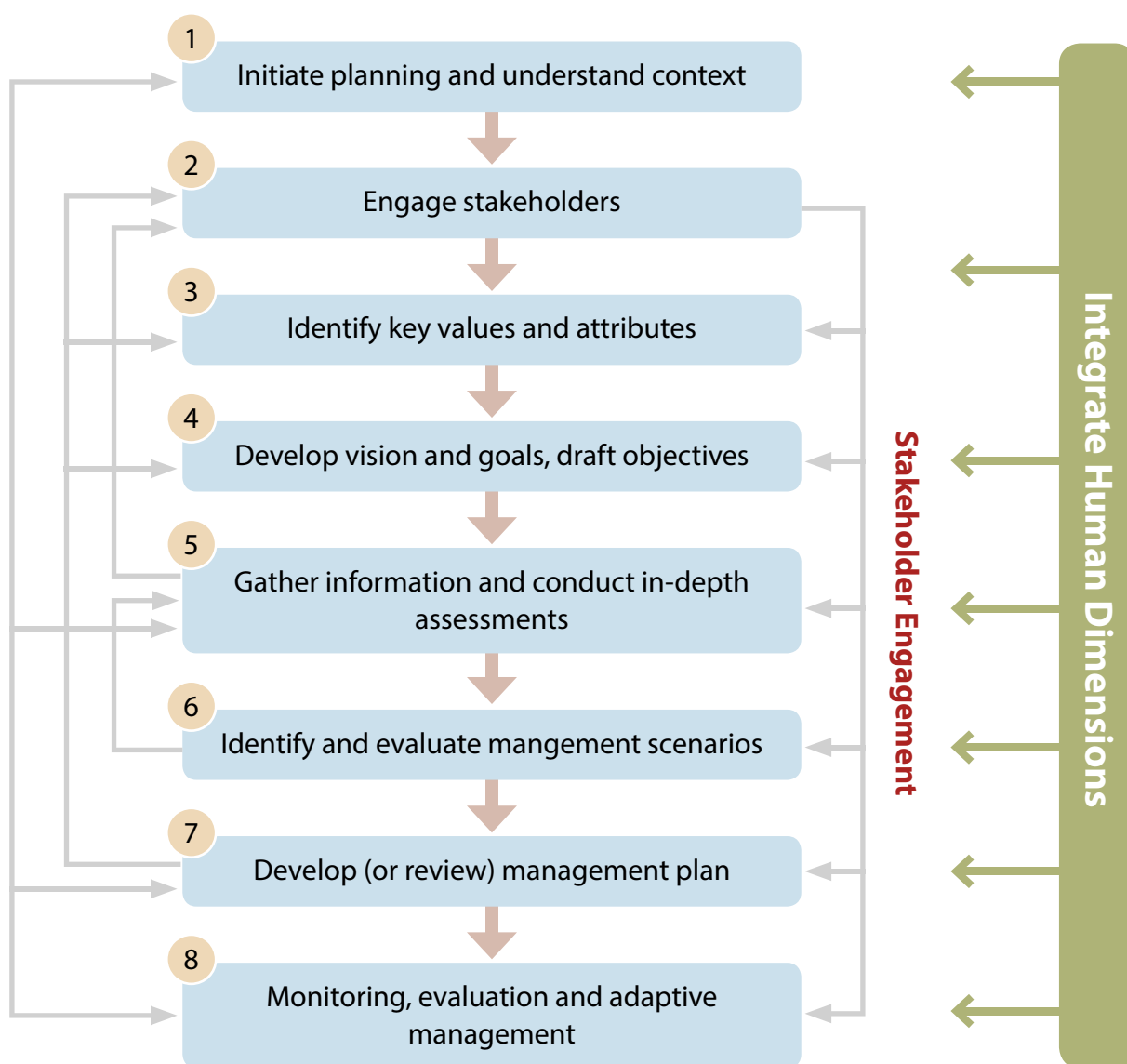


FIGURE 6 Integrating human dimensions into the MPA planning and management cycle process in South Africa

The **first step** in any planning and management process is to understand the context in which the planning takes place, and how different human dimensions shape the management process as well as all subsequent stages in the management cycle.

> Understanding the **context** is an essential first step in both the management and the evaluation cycles (Hockings et al, 2006:13).

This first step, understanding the context, includes **two important activities**:

1.  Understanding the legal, governance and policy context (including institutional arrangements) in which the planning takes place so that the necessary preparation can be done according to prescribed legal and planning requirements

2.  Identifying any immediate threats and key issues that will shape the planning process

The **objective of this step** is to raise awareness of key human dimensions, thereby assisting the officials involved in managing the MPA to identify, pre-empt and prepare for many of the subsequent interactions and impacts.

## Step 1.1  Clarify the legal, governance and policy context

MPAs are complex systems, comprising several components that interact in dynamic, multiple ways. The legal, governance and policy context of an MPA is multi-dimensional and includes dimensions such as:

❖ Legislation and policy frameworks
❖ Governance relationships, including institutional arrangements and levels of co-operative governance between departments and between government and traditional authorities
❖ Current planning processes under way (e.g. land reform, spatial development frameworks)
❖ Power relations between different organisations and interest groups, including political groups
❖ Paradigms, principles and values that influence public perception of MPAs
❖ Land ownership and rights holding

When commencing a planning process it is important for the managers and those in the Internal Planning and Management Team to be aware of the way these dimensions shape their own approach to the process, as well as provide a backdrop to the planning itself.

Increasingly, the term "governance" is being used in policy and planning circles. What is the difference between "governance" and "management"?

> *Governance* is about "**who decides** what to do, how those decisions are taken, **who holds power**, authority and responsibility, who is (or should be) held accountable".
>
> *Management* refers to "**what is done** in pursuit of conservation objectives and **the means and actions** to achieve such objectives" (Borrini-Feyerabend et al, 2013:11).

All MPA planning and management processes at local level take place within the broader framework of coastal and marine governance in South Africa, which in turn is located within the country's legal and policy frameworks and processes. The Internal Planning and Management Team therefore has to identify which institutions or structures have decision-making power and authority to influence the protected area planning and management process. This enables them to determine which institutions and stakeholders should be invited to participate in the planning process and what powers they will have within that process.

Further, it will be necessary to find and collate the legal and policy frameworks relevant to human dimension requirements of the planning and management process. These will include frameworks that are both outside and within the conservation authority.

For example, there are several international policy frameworks that are relevant to the human dimensions of MPA planning and management. These include:

❖ The CBD, including the CBD Programme of Work on Protected Areas
❖ The Convention on Wetlands of International Importance (Ramsar Convention)
❖ The FAO Code of Conduct for Responsible Fisheries
❖ The FAO Ecosystem Approach to Fisheries
❖ The FAO International Guidelines on Securing Small-scale Fisheries

These instruments provide guidance on **both** the ecological and the human dimensions of marine and coastal governance that are of relevance to MPAs. Some of these frameworks also provide guidance on the principles and approach to planning and management that should be adopted.

**An example of gender as a human dimension: imperatives in international law and policies**
*The participation of women is a key element in the preamble to the CBD, which recognises "the vital role that women play in the conservation and sustainable use of biological diversity" and affirms "the need for the full participation of women at all levels of policy making and implementation for biological diversity conservation" (CBD Preamble, 1992: 2).*

In South Africa, key instruments relevant to MPA planning and management that also need to be consulted include:

❖ The Constitution of South Africa
❖ The Marine Living Resources Act 18 of 1998
❖ The Policy for the Small-scale Fisheries Sector in South Africa (DAFF) 2012
❖ National Environmental Management Protected Area Act of 2004: Guidelines on Developing a Management Plan for Protected Areas (DEA)
❖ The National Protected Areas Expansion Strategy (2008)
❖ The National Biodiversity Assessment (2011)

Increasingly it is recognised that the success of a protected area depends on a mosaic of measures that link the protected area to effective planning and management in the surrounding locality. This requires co-operative governance and the integration of a range of institutions. It might mean bringing unusual governance partners on board, such as the Department of Public Works or Social Development, so that a holistic, integrated approach to protection is achieved and the social impact of the protected area is addressed. Locally, specific documents of relevance to a particular region or marine ecosystem also need to be considered, which may include the spatial development framework for the area and relevant integrated development plans. These need to be taken into account in addition to any current MPA management plans, institution-specific guidelines for planning and co-management agreements that pertain to the management of the particular area.

Most conservation authorities in South Africa now have a range of policies related to the human dimensions that provide guidance on the context and approach to planning. These may include:

❖ Conservation planning frameworks
❖ Guidelines on stakeholder participation
❖ Guidelines on co-management
❖ A cultural heritage policy
❖ A natural resource use policy
❖ People and Parks

*The Internal Planning and Management Team must be made aware of any key principles and objectives in legal and policy frameworks, planning documents and agency-specific guidelines that relate to the human dimensions, because this awareness is essential to the planning and management of the MPA.*
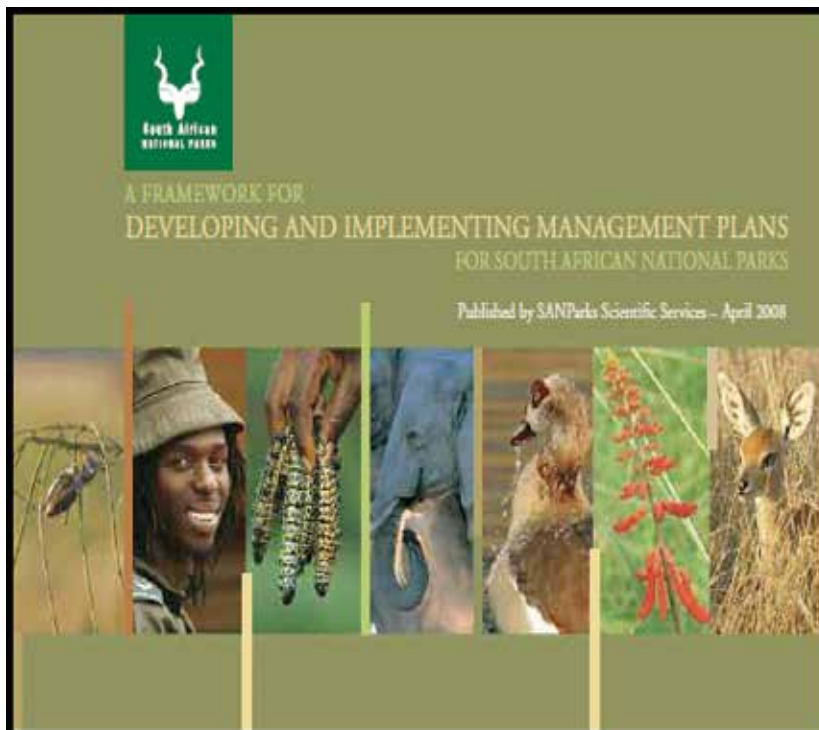


All staff in the conservation authority who will be involved in the process should be aware of the values and principles guiding the approach to planning and management. In the South African context, this requires an awareness of the rights of every citizen to a healthy and sustainable environment and the role that conservation plays in achieving such a healthy environment as well as the need to balance marine and coastal biodiversity protection with sustainable resource use, and to balance environmental rights with other social and economic rights. Organisation-specific policies, such as SANParks' policy document on Stakeholder Participation in developing park management plans (SANParks, 2011), provide guidance on how to take cognisance of these issues during the planning process.

## Step 1.2  Brief internal scoping process to assess key issues or threats

Conservation authorities will need to undertake an in-house scoping process to identify and clarify a number of issues.

**Firstly**, what sort of planning is needed? For example, is this a scheduled review or an unusual event? There might have been a particular environmental change or perceived threat that has triggered the need for a review of the management plan or a review of a particular strategy. In this instance the Internal Planning and Management Team might already be aware of specific issues requiring more in-depth and possibly urgent investigation.

Can the gathering of further information wait until the planning process is under way, or is there preliminary information that needs to be gathered in order to inform the direction that the planning will take?

At this stage the Internal Planning and Management Team decide if they have the in-house capacity and expertise to undertake the necessary investigations and assessments or if they should contract a consultant to do research to provide them with the information required for the planning process.

**Secondly**, the Internal Planning and Management Team need to decide on two key logistical issues at this stage:

❖ **Is an outside facilitator or consultant required for the process?** This will depend on the capacity within the organisation, as well as the scope of the assessment that is planned. Involving a facilitator will also be influenced by the relationship that the conservation authority has with stakeholder groups. The presence of a skilled facilitator is in itself a key human dimension in the planning process as this can be a critical factor in ensuring that the planning process contributes to building constructive working relationships among stakeholders and governance partners.

A manager who is a leading expert in his or her own field or area of expertise, but does not have the skills to nurture a group through a planning process, needs to secure the support of a skilled facilitator who does.

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**Qualities and skills of a good facilitator**

- Open-mindedness
- Creativity
- Respect for stakeholders, and ability to command respect from them
- Sensitivity to local culture and gender
- Understanding of local context and issues of concern
- Sense of humour
- Modesty
- Focus on guiding rather than leading the process
- Familiarity with community organising and participation processes
- Strong social (to establish rapport) and communication skills
- Conflict management skills

*(From Hauck and Sowman, 2005:26)*

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❖ **Does the organisation have the budget?** Right at the outset, the conservation authority needs to explore whether it has the resources to facilitate the necessary planning, stakeholder engagement, research activities, and monitoring and evaluation. This should include planning ahead to anticipate any additional expenses that might arise in the next step of stakeholder engagement, such as transport, refreshments, interpretation and translation. Many of these activities may be built into the operational budgets of the authority, but additional funding may need to be secured to ensure that a full and effective participatory planning process can be undertaken.

This first step lays the foundation for a holistic, integrated planning process. It aims to raise the awareness in the Internal Planning and Management Team of key human dimensions which shape the context in which the planning activities will take place. Awareness of legal and policy requirements and dynamics, coupled with careful planning to match the capacity of the organisation with the needs of the particular planning challenge that lies ahead, will help to maximise the effectiveness of the planning process.

Participatory engagement of stakeholders is perhaps the most important component of the planning and development of an MPA (Walton et al, 2013:1).

Stakeholders are individuals or groups that may have a direct or indirect interest, or stake, in a marine resource and/or area and its management, or may be affected by decisions regarding its current and future use and management. They might have direct interests or rights in the area, (e.g. fisheries rights holders, local communities dependent on resources) or indirect interests (e.g. recreational users, NGOs, researchers).

Stakeholder engagement is a critical step in integrating the human dimensions into MPA planning and management (see factsheet on Stakeholder Participation). The **key objective** is for the internal planning and management team to ensure that appropriate, legitimate, and effective participation of recognised rights holders and stakeholders in the MPA planning and management process is secured.

The **key activities** in this step include:
1. Clarifying the approach to stakeholder participation, including representation
2. Identifying the stakeholders
3. Understanding stakeholder power and status
4. Ensuring the full and effective participation of all stakeholders

The Constitution of South Africa provides the overall framework which guides the approach to the governance of a protected area. Within this broader framework, the National Environmental Act establishes the standard for full and effective participation of stakeholders in environmental planning. In addition, a range of other legal and policy frameworks give content to the right to participation as well as indicating when governance might adopt a co-management or community-based self-management approach.

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**Participation of indigenous people and local communities**

South Africa is a signatory to several international legal instruments that recognise the rights of indigenous peoples and local communities to participate in planning and decision-making. UN agencies, including the CBD, have recognised the need to include indigenous peoples and local communities as key rights holders in the governance and management of MPAs (UNEP CBD, 2011:5). Where there are indigenous or customary communities (see factsheet on Customary Fishing Practices and Rights), it is necessary to address any specific issues related to their right to free and informed prior consent and the participation of traditional authorities. It is important that the status of different stakeholders and their rights and responsibilities in the process are clarified early on in the process.

## Step 2.1  Clarify the approach to stakeholder engagement

A key activity as stakeholder engagement is initiated is clarifying the approach adopted by the conservation agency to stakeholder participation in planning and managing MPAs. "Approach" refers to the perspective and attitude that the authority adopts towards the rights of stakeholders in the process and related activities. It is likely to be informed by legal instruments and by the authority's own particular policies on stakeholder participation. For example, in a "state-centric" approach, the conservation authority assumes the position of lead agency and assumes that the state, with its conservation partners, has the power and authority to make decisions. In a co-management or "shared governance" approach, the conservation authority assumes that it should share power and authority with representative stakeholders. The extent to which power to make decisions is devolved to local-level joint planning forums, involving stakeholder representatives, might vary from one MPA to another.

> *Co-management is an alternative to the conventional top-down approach to resource management and recognises the value and importance of involving resource users and other stakeholders in all aspects of management and decision-making (Hauck and Sowman, 2005:9).*

The approach taken will shape expectations of how much power and status stakeholders have in the decision-making and planning process vis-à-vis the state.

Increasingly, international institutions responsible for giving guidance on coastal and marine governance, such as the FAO and the CBD Conference of Parties, are urging states to adopt a flexible range of approaches to governance that maximise the opportunities for community participation in marine resource governance, either as rights holders or as stakeholders.

The Global Study on Protected Areas Management Effectiveness found that out of the 45 parameters measured, seven had a high correlation with outcomes. Of those, three were related to community outcomes: communication program, program of community benefit and involvement of communities and stakeholders (Hockings et al, 2006 in IUCN-TILCEPA, 2010:9).

This activity thus requires that the Internal Planning and Management Team be informed of the particular policies according to which the organisation is operating and reach consensus on the approach to stakeholder participation. The approach and specific design of stakeholder engagement will differ from case to case and needs to be tailored to meet the interests and needs of the local context. Key issues to consider:

❖ In most protected areas, a Stakeholder Advisory Forum comprising representatives of the various interest groups is established (see Figure 7 below). For planning purposes, this forum may be too large and unwieldy to involve in its entirety, and the authority may suggest that the various interest groups select representatives to participate in a specific Joint Planning Team established for the purpose of the planning process.

❖ The Joint Planning Team will comprise representatives of the management authority (Internal Planning and Management Team) and representatives of the Stakeholder Forum. The type and levels of representation can be proposed by the authority, but need to be confirmed in consultation with the various stakeholder and rights-holding groups.

❖ This Joint Planning Team will then report back to the Stakeholder Forum at regular intervals if such a forum exists.

❖ At certain times in the planning process it will be necessary to facilitate public meetings in accordance with the standards established in legislation, for example the National Environmental Management: Protected Areas Act.
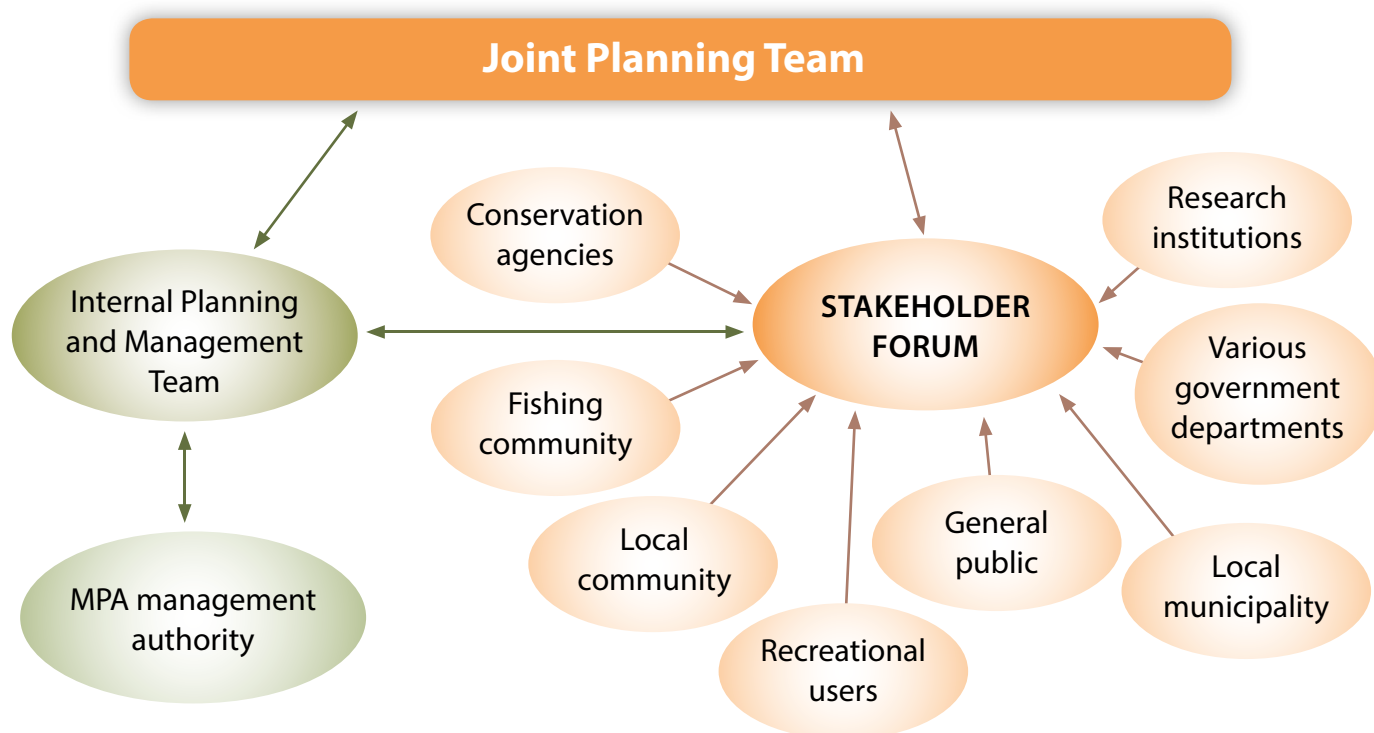


**FIGURE 7** Example of an MPA planning and management organogram

This first activity in the step of engaging stakeholders is a critical one as it lays the foundation for the participation of the stakeholders. Once the management authority has clarified its own approach to the powers granted to stakeholders and any legal obligations regarding how they are involved, it needs to undertake the next activity, which aims to develop understanding of the particular set of stakeholders in each MPA context and the dynamics of their interactions.

## Step 2.2  Who are the stakeholders? How are they identified?

The term "stakeholders" is often used loosely to refer to all those who are affected by or have an interest in an MPA. It is now recognised that there are significant differences between stakeholders and within groups of stakeholders. This next activity within the step of engaging stakeholders thus requires an analysis of stakeholders in order to identify the different interest groups and establish which groups should have stakeholder status.

Local communities living in an area earmarked for MPA designation, or adjacent to an existing MPA, might be stakeholders, but they might well be rights holders, hence it is important to identify the types of user rights that different stakeholders might have in relation to the MPA. Some might have the right to extract marine resources while others have non-extractive use rights. A national or provincial conservation agency, such as SANParks or CapeNature, might be considered a primary stakeholder in a new planning process where there is as yet no designated authority, particularly if they are going to become one of the authorities responsible and accountable for the management of the area.

Although the term "community" or "local community" is often used to refer collectively to the residents who use or will be affected by the MPA, it needs to be defined in each planning process. "Community" is usually used to refer to either a geographical community with an interest in the MPA, such as one living adjacent to or in the MPA, or a community of interest. However, communities, like stakeholders, are not homogeneous. There are important class, race, resource use, geographical and other differences within communities. Stakeholders have different degrees of influence, power, rights and responsibilities (see factsheet on Stakeholder Participation). Each of these is linked to key human dimensions that might have an impact on the planning or management process. Thus it is necessary to identify the various types of stakeholders in each marine ecosystem. Where appropriate, *differentiate between primary stakeholders* (such as local resource users and rights holders) *and other categories of stakeholders* (secondary stakeholders).

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**Different types of stakeholders may be determined using the criteria below:**

- Existing rights to marine and coastal resources
- Continuity of relationship to resource (resident fisher versus migratory fisher)
- Capacity, unique knowledge and skills for the management of the resources at stake
- Losses and damage incurred in the management process
- Historical and cultural relationship to the resources
- Degree of economic and social reliance on the resources
- Degree of effort and interest in management
- Equity in access to the resources and the distribution of benefits from their use
- Compatibility of the interests and activities of the stakeholders
- Present or potential impact of the activities of the stakeholders on the resource base
- Level of organisation of local structures

*(From Hauck and Sowman, 2005)*

The participation of stakeholders in planning and management processes presents a continuum of rights and responsibilities from participation in planning at the level of consultation or in an advisory capacity only to full participation in the planning and decision-making processes of the governance of MPAs. Different factors will determine the powers accorded different stakeholders. For example, in many of South Africa's MPAs, surrounding communities have established active stakeholder forums comprising representatives of key interest groups such as recreational anglers, bird watchers, kite surfers, divers and other users of the area. Differences in how long these interest groups have existed, their power in the local tourism economy and the impact of their activities on the MPA will shape how their power within a planning process is perceived, and how their needs and interests are accommodated. In some areas local residents represent powerful historical interests and are able to summon legal and economic support for their cause and have a high level of awareness of their rights, which also shapes how they are perceived within a planning process.

### Understanding stakeholders: A key challenge

It is often difficult to determine who is and who is not a genuine stakeholder.

The process could be hindered by individuals with vested interests, or by powerful groups with political allegiances. Power imbalances amongst various individuals or groups could significantly affect the process of identifying and involving genuine stakeholders.

Therefore it is critical that the MPA planning and management team work towards building relationships and trust with community members, local leaders and project participants in order to identify and understand community structures and dynamics. Procedures for stakeholder groups and other interest groups to apply for recognition as stakeholders and to elect appropriate representatives should be transparent and published in an accessible format for these groups well in advance of the planning process. Where necessary, connect with other local community-based organisations and NGOs to ensure that appropriate representation is achieved (adapted from Hauck and Sowman, 2005).

Once the various rights holders and stakeholders have been identified, it will be necessary to approach them to participate in the planning process. This needs to be done in a transparent, consistent way that is appropriate to the communication and literacy levels of the different groups involved. The key objective for this first set of activities is thus to develop an appropriate, consistent and rational approach to how stakeholders will be involved in the planning process and to begin to develop an understanding of the relationships that different groups have to the marine and coastal ecosystem under discussion. Understanding of local dynamics will deepen through regular interaction and through the planning intervention itself. The Internal Planning and Management Team now needs to engage directly with the stakeholders and to set up a first meeting to share information with the stakeholder groups about the intended planning process and seek their input and feedback on the proposed process. If appropriate, the conservation agency might first meet with individual stakeholder groups prior to bringing the larger group together. This has the advantage of providing an opportunity to deepen understanding of inter-stakeholder group dynamics and to anticipate any potential areas of conflict between stakeholder groups.

It is important to address *issues of representation at this initial meeting* (see factsheet on Representation and Legitimacy) and ensure that the criteria for the selection of stakeholders is transparent. Stakeholders should agree on the criteria for identifying representatives to participate in the planning process. Expectations with regard to representatives gaining the necessary mandates from their constituencies must be clarified and appropriate processes put in place to enable these mandates to be confirmed.

## Step 2.3  Ensure the full and effective participation of all stakeholders

Class, race, gender, language, educational status and a range of other human dimensions may lead to the marginalisation of some persons or groups in processes of representation as well as in the actual planning, management and decision-making processes. The management authority has two key responsibilities in this regard:

1.  It is critical that MPA managers and conservation authorities take the lead in actively promoting equity in the selection and participation of stakeholder representatives and in the actual planning processes. This includes ensuring equitable representation of women and any other group which might be discriminated against or marginalised (see factsheets on Gender, Class, Ethnicity; Equity; and Representation and Legitimacy).  The authorities also need to ensure that they have the necessary human capacity within the Internal Planning and Management Team to understand the languages and cultures of stakeholder groups or are able to contract in such capacity when required.

2.  The management authority needs to ensure that all the representatives have the capacity to participate fully and effectively. To this end it might be necessary to provide specific training, mentoring or support to marginalised groups before starting the planning process. The Joint Planning Team also needs to be consistently aware of the need to ensure that all representatives are able to participate and that language, literacy and other obstacles are minimised. If need be, specific information, resources and capacity-building materials can be provided to participants throughout the process on specific issues as the need arises. This will increase their ability to participate effectively and thus the legitimacy of the process.

> *Support and capacity-building of the poorer or marginalised groups of stakeholders may be needed to ensure that they are able to take part effectively in the planning process (and subsequent implementation) (FAO, 2011).*

## Step 2.4  Establish a Joint Planning Team

Once there is agreement on stakeholder representatives, a Joint Planning Team, comprising the officials from the authority and the representatives of the various stakeholder groups, will need to be constituted to take the planning process forward. There are a number of activities that the Joint Planning Team will need to undertake. At the first meeting, the management authority can facilitate discussion on these activities if a decision on the appointment of an external facilitator has yet to be agreed upon. Ideally the facilitator will be present to facilitate the following activities:

❖ Establish values, principles and goals of the planning group/groups and clarify vision, objectives and planned output for the process.

❖ Clarify procedures for feedback to different constituencies throughout the process and establish norms or "ground rules" for the process, such as how to reach consensus and ensure that all voices are heard and that the process meets the necessary requirements for consultation and participation.

❖ Plan a series of meetings in advance in order to ensure that basic logistics are co-ordinated, such as transport for local communities and the interpretation and translation of documents, realising that the participation plan may need to be revised from time to time.

❖ Organise an introductory session on the human dimensions framework that must guide the planning process, explaining the paradigm shift that is taking place in terms of the ecosystems approach to management. If necessary, provide accessible materials on each of the key human dimensions, with examples of how that dimension might be applicable to the systems under discussion. Ideally a specific workshop on understanding the human dimensions of MPAs should be scheduled at this early stage in the planning.

> **Refer to factsheets on different human dimensions in Section B of the guidelines.**

❖ The facilitator of the Joint Planning Team should explain the way he or she intends to organise the planning activities – this is often referred to as the planning methodology – and ensure that there is support for and understanding of the process. Where necessary, adapt the planning methodology to maximise involvement of all parties.

❖ At times this Joint Planning Team might engage in a broader public participation process to canvass wider views from all stakeholders. It needs to be noted that not all steps require the whole Joint Planning Team. The key ingredient in determining these issues is the need for transparency and for a process that is seen as a legitimate and full and effective participatory process.

> Multi-stakeholder processes are not only about making decisions, which is usually the end point, but rather about process to get there and the value that brings to building knowledge about an MPA and the issues it faces (Walton et al,2013).

Stakeholder participation normally develops over time as trust and a working relationship with different groups are established. Walton et al (2013) have portrayed this as a continuum of stakeholder engagement. The level of interaction may be slow and tentative at first, as stakeholders learn to trust the management team, but as the working relationship strengthens, their involvement is likely to increase. In some contexts, the level of engagement is secured at the outset of the process, and the community may take on the role of co-managers. In other engagements, the level of responsibility assumed by communities grows as they develop their capacity for governance. In some countries, indigenous and community-conserved areas exist and community members assume primary responsibility for governance.

| Understanding and engaging stakeholders | Getting started with stakeholders | Participatory problem solving | Stakeholders as advisors | Co-management approaches |
|---|---|---|---|---|
| Stakeholder characterisation | Working with stakeholders | Problem identifications | Using advisory bodies | Cooperative management approaches |
| Interacting with stakeholders | Building trust | Creative problem solving | | |
| | Identifying common ground | Finding common solutions | | |

**FIGURE 8** Stakeholder engagement continuum (Walton et al, 2013:1)

Stakeholder engagement is a critical step in the planning and management process. It aims to understand the various stakeholder interests in an area, identify the key interest groups that have a legitimate stake in the process and engage them in a transparent, well-planned manner that maximises the legitimacy of the process. The working relationship between stakeholders and the management authority is the mechanism that both drives the planning process and, ultimately, shapes the outcomes of the protected area. It is thus a critical human dimension, both in and of itself and in shaping the way in which other important dimensions are integrated.

## STEP 3 — Identify the key values and attributes of the area

Once the stakeholders have been engaged and the Joint Planning Team has clarified its own methodology for proceeding with the planning, the Joint Planning Team moves towards the important step of developing a shared vision and desired state for the area under consideration (see Step 4).

> **What is the *desired state* of a protected area?**
>
> The adaptive management framework uses the term "desired state" to refer to "a collectively developed vision of a set of desired future conditions (that are necessarily varying), integrating ecological, socioeconomic, technological, political and institutional perspectives within a geographical framework" (SANParks, 2006, Chapter 6). It is "where we want to be" in the future and sets out the objectives towards achieving this future state for the area under discussion.

However, before developing a vision, it is necessary to identify the attributes of the area and understand the value and significance that is attached to the various ecosystems goods and services provided by the socio-ecological system, as well as the threats and risks that these face (Hockings et al, 2006:13).

This step in the process should thus be seen as involving a number of activities, all collectively contributing to the development of the vision and the desired state of the area under consideration.

These **activities** include:

1. Identifying the key attributes of the system
2. Assessing the values and significance attached to the key attributes
3. Identifying and assessing issues of concern, threats and management challenges facing the area

The **objective of this step** is to develop the necessary understanding of the full range of values of the area, including, most importantly, both the human and the ecological, so that there is then synergy between the goals that are later identified and the values and significance of the area.

To understand the values and significance of any area, and the socio-ecological system in that area, it is necessary to understand what has come to be referred to in biodiversity planning as the "ecosystem goods and services".

> **Ecosystem goods and services**
>
> Ecosystem goods and services refer to the different ways in which biodiversity in an ecosystem contributes towards human needs. These might be direct contributions such as through fish as food, or indirectly through processed goods such as fish oil for medicinal purposes. There are different kinds of services. These include provisioning, regulating, supportive and cultural services including recreational and tourism values and services (see factsheet on Ecosystem Goods and Services).

A key aim of this step, therefore, is to explore how society in general, and the Joint Planning Team in particular, value and need different aspects of the socio-ecological system and perceive which aspects might require protection. Before the Joint Planning Team gets down to discussing in detail

the value of different components (here referred to as the attributes) of the area, a process of gathering information about the human and ecological dimensions is necessary. This ensures that a broad range of dimensions is covered, and not just the ecological components.

> *Vital attributes are the most important characteristics/properties (biodiversity, heritage, geographic, touristic, etc.) of the system to be managed – which make the system unique and which are valued by various stakeholders (SANParks, 2006).*

The Joint Planning Team should undertake a range of activities to familiarise themselves with the area and dynamics. These include:

❖ On-site visits to gain a broad understanding of environmental (including social, historic, cultural and institutional) characteristics and conditions from a range of perspectives. These on-site visits can be broadened to include persons not formally part of the Joint Planning Team, such as other local resource users and stakeholder representatives, and persons representing multi-disciplinary and multi-sectoral perspectives.
❖ Multi-media presentations using maps, photographs, oral histories and archival material
❖ Brainstorming key human dimensions and relationships that have ecological dimensions with the team and local residents
❖ Conducting interviews and focus groups with a range of different local stakeholders
❖ Mapping and identifying the different components of the socio-ecological system using rapid on-site appraisal and participatory mapping processes

This process of gathering preliminary, background information to ensure that the Joint Planning Team understands the socio-ecological system under discussion is critical. It serves two purposes:

1. If site visits and discussions are well planned and facilitated, they help to build a working relationship among the team and produce a shared frame of reference and body of information.
2. The process provides an opportunity to hear the views of others and learn about issues of concern from different disciplinary and sector perspectives.

A very useful tool often used to achieve these objectives is one called "Rapid on site appraisal".

### Rapid on site appraisal

The objective of rapid on site appraisal is to give the planning participants an opportunity to gain a relatively quick overview of the key issues of relevance to the site – ecological, social, cultural, political and governance dimensions – from the perspective of different people. It has the advantage that it can be co-ordinated to include a variety of representatives sharing their experience, perceptions and interests first-hand: officials of relevant local and national departments, NGOs, scientists and other local formal and informal experts, representatives from the local communities living in or adjacent to the MPA, and the primary users of the MPA such as long-standing visitors. It enables the planners to engage a broader group than just those stakeholder representatives who are part of the ongoing formal planning process. The inclusion of local and indigenous knowledge (see factsheet on Traditional and Local Knowledge) in planning processes is crucial, as many local communities and regular visitors who use marine and coastal resources have a finely tuned understanding of these resources and how they are affected by environmental and other changes.

The Joint Planning Team, together with the facilitator, should brainstorm what activities need to form part of the rapid on site appraisal, and then the management authority, with the assistance of the facilitator, may take the lead in setting up these activities.

Where a rapid on site appraisal is not feasible because of budgetary or transport limitations, a "virtual" appraisal can be facilitated in the form of a multi-media presentation, bringing in key persons knowledgeable about the area and the communities that use or are affected by the proposed MPA, showing DVDs and using other media to capture the different aspects and components of the MPA. This gives the Joint Planning Team an accurate impression of the multi-textured terrain of the sea and surrounding landscape and the people that live in and interact with it. It also has the benefit of giving the Joint Planning Team an opportunity to interact closely over a series of several days and get to know one another. This contributes towards building a working relationship and, hopefully, towards the process of integrating the human dimensions.

Once all the members of the Joint Planning Team are familiar with the key features of both the social and the ecological aspects of the area under discussion, the team can move on to identifying the key attributes of the socio-ecological system that require protection. They should now have a better understanding of how the social and ecological dimensions in the area interact and shape each other.

## Step 3.1  Identifying the key attributes of the system

An area is designated a protected area for specific reasons. Usually this is in order to protect particular ecological, social or cultural features or attributes. In some cases the specific attribute that is the focus of the planning will be very clear. More often than not, in the context of an ecosystems approach, there might be a general awareness that an area is important for a range of reasons. The group now needs to identify those key attributes or features of the particular area or MPA system.

Key attributes might be aspects that are perceived to be important in the present, or ones that will become important for future generations. Attributes might be identified as tangible features and elements (e.g. a wetland of high biodiversity), or they can be intangible values (e.g. a rocky outcrop of spiritual importance to a particular community). Different stakeholders and different members of the Joint Planning Team will bring various priorities and issues to the table – all aware in their own minds of which aspects they feel are most important. At this stage it is important to brainstorm all the attributes that people identify, many of which will be linked. For example, the living cultural heritage system of the Kosi Bay trap fisheries incorporates a range of attributes, such as the scenic beauty and rich biodiversity of the Kosi Lake system, the unique social-ecological interaction between the Tembe-Tsonga fishers and this system through the use of fish traps, and the fishers' traditional knowledge of the lake system. Each of these attributes needs to be adequately incorporated into the planning and management process.

## Step 3.2  Assessing the values and significance attached to the key attributes

Once the Joint Planning Team has identified the key attributes, the next step is to understand the values attached to them.

> "Values lie at the heart of all protected areas" (Hockings et al, 2006:13).

MPAs are established to protect and promote both biological and socio-cultural values, to varying degrees. A key step is to identify the values inherent in an area or in a particular MPA and to understand what those values signify to different groups at local, national and sometimes even global levels.

A checklist of values can be used to ensure that no important values are excluded.

**TABLE 1**  Some types of values to be considered in assessing protected area context (based on Hockings et al, 2006:14)

| Ecological | Socio-economic and cultural |
|---|---|
| **Ecosystem services/ functions**<br>• Catchment management and water supply<br>• Soil conservation<br>• Climate and disaster mitigation<br>• Clean air and pollution mitigation<br>• Clearing of alien plants<br><br>**Biodiversity**<br>• Ecosystem level<br>• Species level (rare and threatened, indicator species, popular species, economically or socially important species, etc)<br>• Local population level<br>• Genetic level<br>• Spill-over effects<br><br>**Landscape and geology**<br>• Evidence of formation and ongoing geological processes<br>• Fossils<br>• Special geological formations and landscape features<br>• Water bodies and wetlands | **Cultural**<br>• Spiritual, e.g. sacred sites<br>• Indigenous heritage<br>• Historical<br>• Aesthetic and artistic<br><br>**Social**<br>• Recreation<br>• Green space<br>• Scenic<br>• Proximity to urban areas/users<br><br>**Economic**<br>• Tourism<br>• Adjacent land values<br>• Sustainable resource harvesting<br>• Proximity to users<br>• Available services and facilities<br><br>**Research and education**<br>• Benchmark sites<br>• Research<br>• Formal education<br>• Interpretation |

# The cultural heritage and customary system of the Kosi Bay traditional trap fishing community



The Thonga people of the Kosi Lakes region in northern KwaZulu-Natal have depended on marine resources from the lake system and adjacent coastline for generations. Their marine resource use is the material basis of their culture, and they have developed a detailed customary system of marine resource use and governance. This is acknowledged by the iSimangaliso World Heritage Site authorities in the iSimangaliso Wetland Park Integrated Management Plan (2011-2016), which cites the Kosi fishery as an example of living heritage. It states that living heritage refers to "age-old traditions still being practised today. These include oral histories, cultural traditions, land use and resource management practices, and indigenous knowledge systems. An excellent example of this is the on-going fish trapping in Kosi Bay, a site and activity that are protected as living history" (iSimangaliso WHA, 2012:54).

In Thonga cosmology, it is believed that fish are provided for by *okoko* (the ancestors), and the fishing community observes several *amasiko* (customary rituals) that give thanks to the ancestors for providing this food. Knowledge of *isiko*, as well as the skills associated with fishing and harvesting, have been passed down from generation to generation and are a distinctive part of the culture of the particular Thembe-Thonga clans that live in the coastal zone, adjacent to the Kosi Lakes.

These fishing communities have a well-articulated customary system through which they have developed rights to access, use and manage marine resources.

This living heritage is protected by sections 30 and 31 of the Constitution of South Africa, which recognise the right to culture, and section 211, which recognises the right to customary law, in so far as these practices are consistent with the Bill of Rights. The Policy for the Small-scale Fisheries Sector reflects these constitutional provisions, affirming the recognition of all rights conferred by customary law, common law or legislation. This legal protection obliges conservation and fisheries management authorities to respect the rights of local communities to practice their culture and develop their customary system of management, on condition that they do so sustainably and in compliance with the Bill of Rights.

*Source: Sunde, 2013.*

A range of activities may be useful in gathering information on values:

❖ Where there is an existing MPA, the management authority may have an in-house mechanism for collecting information on how stakeholders and the public perceive the range of ecosystems goods and services provided by the MPA or the marine and coastal ecosystem under discussion. For example, an existing MPA might have a visitors' feedback form, a comments book or a website where comments are collected. In other contexts, there may be a stakeholder forum where local communities and other stakeholders regularly interact with the conservation authority in which values and priorities are discussed and become known.

❖ The Joint Planning Team needs to identify specific knowledge requirements on issues related to the value of certain attributes and issues requiring further investigation.

❖ At each planning opportunity, the values and assumptions that the Joint Planning Team itself brings to the process need to be made explicit, and existing information about values may need to be re-examined. These discussions promote transparency and ensure that the assumptions, values and priorities of different stakeholder groups are made explicit.

> Where there are competing values within the planning team these should be identified and put on the table (SANParks, 2006, Chapter 6).

The group should now discuss these values and reach consensus on how to prioritise the key attributes on which the management interventions will focus. It is critical that the whole range of values be presented – from ecological to social and cultural. In many instances the ecological values interact with cultural and social values to shape the socio-ecological system.

## TOOLS FOR PRIORITISING AND RATING ISSUES

The facilitator has a range of easy-to-use tools with which to help participants rate the key attributes of the area that they have identified in order of importance. They can be requested to do this individually, in pairs or in small groups.

### Rating scales

Ask the participants to rate all attributes on a scale of one to ten, or to select the top ten attributes that are valuable to each participant. These attributes can also be sorted into categories and then rated. Specific tools such as the Delphi method can be employed to rate issues confidentially. The Delphi method is used to move a group towards consensus. It involves asking all the participants to rate a set of issues or attributes from one to five, with one being the most important. The scores are then revealed to the group, while individual participant's ratings are kept confidential. The facilitator then asks the group to rate the issues again. This is repeated as often as is required, gradually paring down the selection to the most frequently nominated issues.

A "sense of place" for example, is an attribute that is highly valued by people living in a particular area. This refers to the processes by which people come to value, and become attached to, a particular place (see factsheet on Sense of Place).

# CASE STUDY 3

# Sense of place at Dwesa-Cwebe MPA



The local communities of the Dwesa-Cwebe MPA express a strong attachment to certain places along the coastline. For some clans these places represent particular sacred sites where they come to communicate with their ancestors. During the participatory mapping process organised by the ECPTA as part of the review of the zonation of the MPA, the community of Hobeni insisted on one of their elders, a leading traditional healer being part of this mapping process, as they said he represented the community's collective history: he was able to point out the sacred sites to the ECPTA officials and explain the meanings attached to particular places.

*AmaDingatha are from the Great House of the Mfingo, Nyathi's place. Most of the people there have spirits to become amagqirha (traditional healers), because they are from the Great House. The ancestors will come to amaDingatha for traditional ritual. AmaDingatha have got their own rocks at the sea where they come for spiritual healing. They would come to that rock to talk to their ancestors. There is another rock for iintombi zakwaFalati (the Falati girls) on the northern part of the Dingatha, but in the same vicinity, [there is] another clan there … But that clan is part of the amaDingatha. The iintombi*

*zakwaFalati are girls from the Falati family – they also have their own rocks there. The Falati daughters are from the Qhangase clan. There was another rock that was named after the iintombi zaMabamba from Dumezweni and Qamba family … Just before the Mbanyana Bridge (Informant No. 39, Sunde, 2013).*

For some residents particular sites have cultural and material heritage value, rather than spiritual significance. In the words of a 78-year-old man:

*My father was M. The first person to come and own the rock was M's father, my grandfather, N. M's father, when he (M) was growing up, did not have the energy physically to go (to the sea), so he said to his son "esithi mntanam nabu ubutyebi" (my child here is wealth). This rock means wealth beause when you collect mussels and all the seafood that is here, you sell it. And the money has value because this was during the time of the pound (currency). He said this is your wealth, my son. I inherited this from my father. As soon as my father, M, passed away, that rock was given to me to look after … It is "ilifa" – if you inherit anything from your father, you own it, and it is "ilifa". Everyone across the community knows about "ilifa" – the land also belongs to "amafa" … Land is inherited as well (Informant No.39, Sunde, 2013).*

# Step 3.3 Identifying and assessing issues of concern, threats and management challenges facing the area

Once the list of key attributes has been made and there is common understanding about the values and significance attached to these attributes, the group needs to explore the key threats and risks that face the attributes and why they might need protection. This will help the group identify the type and degree of protection that might be needed. It is part of the process of understanding the management challenges that the area or MPA faces.

There are a number of useful planning tools for assessing risks (see Section B: key references and recommended reading). In South Africa, WWF has led the way in developing a methodology that assesses both ecological and human components of the ecosystem, known as ecological risk assessment (Nel et al, 2007).

## Ecological risk assessment

Ecological risk assessment is a process that aims to identify risks facing specific fisheries, within an ecosystems approach. It provides a checklist of broad operational objectives with management linked indicators that participants use to rate the risk that they believe a fishery is facing. It can form the basis of effective monitoring of performance in the fisheries. Most importantly, the process seeks to build consensus amongst diverse stakeholders about identifying and prioritising ecosystem risks and issues and prioritising management actions required to address these risks. It is based on an understanding of the "ecosystem" in its broadest definition, including the biological, social, economic and governance systems (Nel et al, 2007).

Another tool, which is a popular and quick and easy to use method to determine concerns, threats and risks, is the SWOT method.

## SWOT method

The SWOT method is commonly used to identify and analyse the **s**trengths, **w**eaknesses, **o**pportunities and **t**hreats faced for each of the attributes listed. The facilitator of the planning process should ask each participant to reflect on these issues facing the MPA. Where there is a wide range of capacity and knowledge among the participants, it would be helpful to randomly divide the participants into groups. Ask each group to discuss and then list the strengths, weaknesses, opportunities and threats facing the area, and to rank these in order of severity – ranging from the strongest indicator to the weakest. Where there is disagreement, and they cannot reach consensus, they should indicate this when they report back. All the groups should report back in plenary and a composite list of strengths, weaknesses, opportunities and threats should be compiled and sorted according to the ranking they were allocated. The group should now attempt to agree on the order of these issues and compile a common SWOT analysis.

Irrespective of the risk assessment tool chosen, the facilitator should encourage persons or groups that have divergent opinions to motivate their positions in plenary and to facilitate in-depth discussion and debate on these issues. Key issues of concern requiring further research or investigation should be identified, pursued by the Joint Planning Team before the next planning session or highlighted for more detailed investigation by an expert (see Step 5).

*The diversity of stakeholder perceptions and interests must be captured when exploring how participants have assessed and rated the risks facing various attributes. In many instances, what a marine scientist perceives as a threat might not be similarly perceived by the local community.*

**TABLE 2** List of attributes and key risks (presented as management challenges) for West Coast National Park Plan (SANParks, 2012:15)

| Park attribute | Management challenge |
|---|---|
| Unique marine lagoon system | • Expanding harbour and increasing shipping traffic<br>• Oil pipeline from Saldanha to Milnerton<br>• Inappropriate developments in and around the lagoon<br>• Water quality entering the lagoon from bay, urban surrounds as well as potential large-scale pollution events<br>• Non-sustainable extractive resource use<br>• Invasive alien species<br>• Alteration of flows by flow barriers |
| Cultural and natural heritage | Local knowledge is dying out and being diluted before it is formally captured:<br>• Perceived lack of co-ordination in the collation, archiving and dissemination of the cultural heritage of the park<br>• Different perceptions exist of entitlement and mandate to "control" heritage resources among the community and authorities<br>• Limited budget for maintenance in following theft, removal and general deterioration of the physical heritage resources<br>• Development that conflicts with heritage architecture<br>• Potential conflict between biodiversity and cultural heritage management objectives with respect to cultural landscapes vs pristine fynbos<br>• SANParks capacity, competency and expertise to implement heritage plans |

The completion of **steps 1-3** bring the planning process to a point where the Joint Planning Team is now aware of a range of human dimensions present in any socio-ecological system. The team has now reached a point at which the following have been achieved:

1. The Joint Planning Team has had an opportunity to ensure that the necessary stakeholders and participants in the planning process are on board and have developed a shared framework within which the approach to planning can take place. They have begun to get to know the participants' respective areas of knowledge, practical expertise and values.

2. They have familiarised themselves with the area under discussion and sought the perspectives of a range of stakeholders.

3. They are aware of the broader spatial and social development planning environment and institutional arrangements within which this area is located.

4. The team has some insight into the interactions between the social, cultural, political and economic dimensions of the socio-ecological system.

5. They are aware of the different values that are attached to the goods and services provided by the ecosystem.

6. They understand the larger international, regional and national legislative and policy imperatives and principles that need to guide their planning task.

The activities undertaken in these first three steps should culminate in the preparation of a Situational Assessment Report. Whether a formal report is prepared or not, it is critical that a comprehensive record of the outcomes of these activities is carefully documented so that this information can feed into the following steps in the MPA planning and management process.

The Joint Planning Team are now able to move into the next phase of the planning process: to develop the vision, goals and objectives for this particular socio-ecological system and to identify the desired state that they would like to work towards.

**Develop the vision, goals and draft objectives**

Once the Joint Planning Team has identified the key attributes and values of the MPA, the planning process moves towards developing the vision, goals and objectives of the MPA. In some cases, a review process may have triggered the need for revising the vision and goals and the same process would be followed. The facilitator should invite all the stakeholders through the Stakeholder Forum to describe and discuss their long-term wishes and hopes for the MPA, utilising tools such as visualisation exercises or structured brainstorming (see Section B: key references and recommended reading). The objective is to assist people to imagine a fairly distant future— say 20 years ahead, or more – and envisage the best possible conditions in which they would like to hand the MPA and its resources down to their children's children. This should lead to the formulation of a common vision of the desired future state of the area, meaning its resources, its ecological functions, its cultural heritage, and the living conditions of the local communities and other stakeholders.

The **key objective of this step** is to jointly develop a vision, agree on the goals and draft a set of objectives for a specified socio-ecological system.
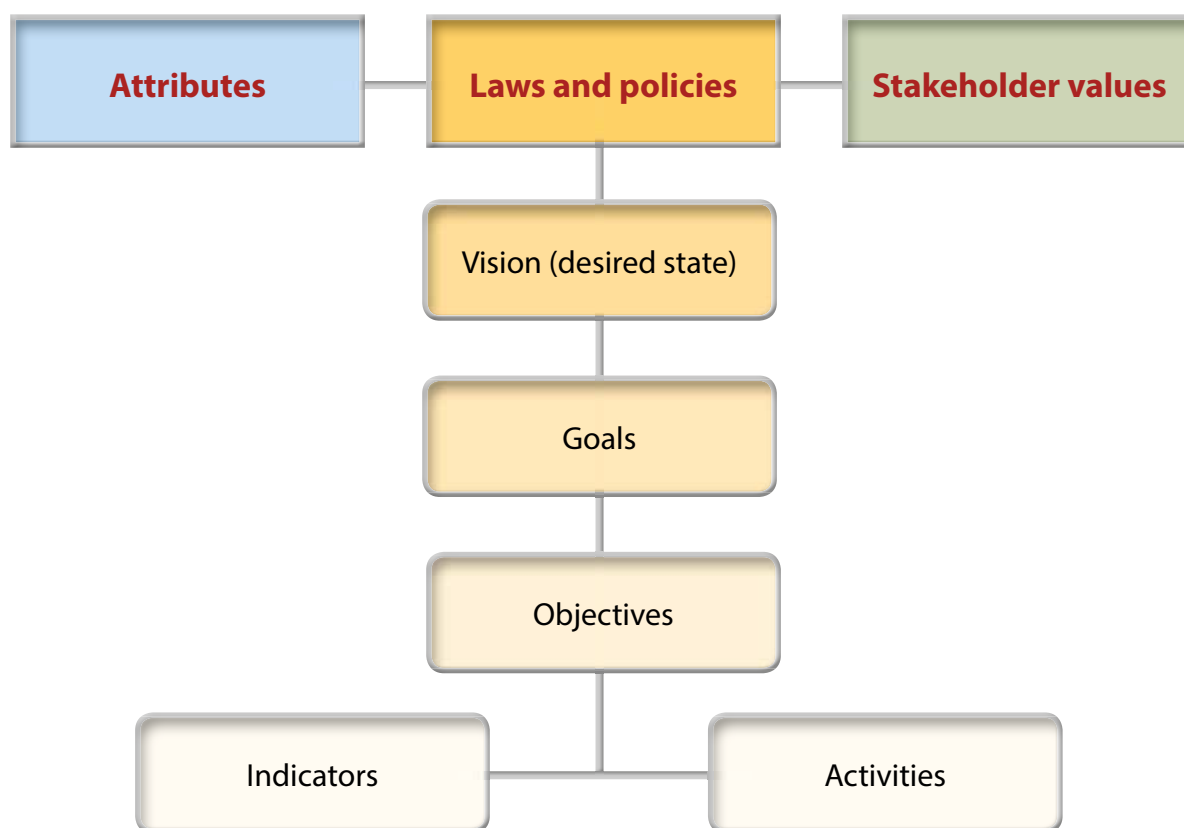


**FIGURE 9** Organogram of process to develop vision, goals and objectives

## Step 4.1  Agree on the vision

A **vision** is a statement proclaiming the idea of the ultimate desired state (in this case, of the protected area). Here is an example of a vision:

> The … MPA will secure a healthy, well-functioning socio-ecological system, providing protection for and conservation of its biological and cultural resources, while encouraging appropriate access, recreational opportunities, and livelihood possibilities … (Pomeroy et al., 2004).

It is important to develop a shared vision at the beginning of the planning process, as the vision will provide invaluable "common ground" on which to develop goals. Agreeing on a vision will also help solve problems when management agreements are being negotiated later in the process, as the vision will lay the foundation for a shared understanding of the social and ecological needs of the system. Note that careful implementation of Step 2 (Engaging Stakeholders) will ensure that all relevant stakeholders are present and equipped to take part in this exercise.

During the discussion to develop a common vision of the desired future, divergent opinions can come to the surface, because attributes and values often differ between stakeholder groups. These divergent opinions might include tensions between "conservation" perspectives and values on one hand, and "development" perspectives and values held by communities and/or private-sector interests on the other, or different opinions held by those with historical access rights and those who wish to restrict these rights in the interests of protecting biodiversity or ecotourism opportunities. A skilful facilitator will take note of the different opinions and points of view, summarise them, and help the Joint Planning Team to develop a consensus vision that is broadly supported and as concrete as possible.

*The power of this exercise should not be underestimated. The process is an important human dimension. It enables the parties to speak directly to each other, to get to know each other, listen to each other, start to understand each other's ideas and values, and review the often stereotyped image they have of each other.*

Key to the development of a realistic vision is to take account of existing international and national frameworks such as the Convention on Biological Diversity, the national MPA strategy and the various national fisheries policies, and align the vision with them. Setting goals and objectives for MPA planning would also need to be informed by existing legislation such as the Integrated Coastal Management Act, the Marine Living Resources Act and the Biodiversity and Protected Areas Acts.

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**The new small-scale fisheries policy: conflict or alignment with MPA zonation?**

In 2012, a new policy for small-scale fisheries in South Africa was released. This policy aims to recognise the traditional rights of small-scale fishers by allocating collective use rights to small-scale communities along the coast, and by delineating "community fishing areas" for their exclusive or preferential use. Implementation has not yet begun, but this means that a complex process of marine zonation will take place. In some areas, communities live in or adjacent to existing MPAs, and it is still unclear how zonation will take place in such instances as the legal procedures for rezoning will need to be consistent with the principles and provisions in the Amendments to the MLRA, the NEMPAA as well as the new Small-scale Fisheries Policy. Conflicting situations may arise, in which small-scale fishers will want to reconsider MPA boundaries. Addressing human dimensions in the MPA planning and review process may allow for this potential conflict to be mitigated with the possibility of creating buffer zones for exclusive use by the small-scale fishers. This has been done successfully in several countries. At the same time, South Africa has embarked on expanding its MPA network. In this regard, MPA conservation agencies and small-scale fishing communities could work with one another at developing smaller MPAs within the community fishing areas that protect critical habitats.

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## Step 4.2  Determine the goals

Once a vision has been agreed upon, it will be necessary to operationalise this vision by identifying goals that address the mix of human and ecological attributes. MPAs are established for a wide range of purposes, including protecting marine species and habitats, conserving marine biodiversity, restoring fisheries stocks, managing tourism activities, protecting the rights of local resource users, ensuring protection of livelihoods, and minimising conflicts among diverse resource users.

Goals are broad statements of what the MPA is ultimately trying to achieve, in order to reach the vision.

Goals are more likely to be supported if they are:
* Brief and clearly define the conditions that will result from effective management of the MPA
* Reflect the aims of a wide range of stakeholders
* Typically phrased as broad statements, and
* Simple to understand and communicate (Pomeroy et al, 2004).

The goals must be compatible with the vision. Goals typically relate to either biophysical, socio-economic, culture and heritage, or governance aspects necessary to achieve the vision. Examples of goals that take account of human dimensions are:
* Local communities will benefit from the management of the MPA.
* The nutritional needs of coastal residents will be addressed or improved.
* Cultural values will be enhanced or maintained.
* Socio-economic and other benefits will be distributed equitably among locally affected communities.

- ❖ Respect for local and indigenous knowledge will be enhanced.
- ❖ The public's level of scientific knowledge will be increased.
- ❖ Stakeholder participation and representation will be effective.
- ❖ Management plan compliance by resource users will be enhanced.
- ❖ There will be better management and reduction of resource-use conflicts.
- ❖ An effective balance will be achieved between conservation and resource use.
- ❖ There will be effective compliance monitoring.

*Goals must be developed in a participatory manner to reflect a balance of the needs and desires of all stakeholders involved in the management of the MPA and use of marine resources.*

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**Broad public participation: An example**

One strategy used by SANParks to achieve broad public participation is to develop a draft vision and desired state with selected stakeholders who comprise the Joint Planning Team. This is then subjected to a broad public participation process in the form of a public meeting or open day. Crucial to the success of such a participation process is to ensure that there is an adequate public notice period for this meeting and that the venue is accessible to a wide range of participants. Notices should be distributed in all languages and media. This process might include an open day or meeting where the draft vision, goals and objectives are presented to the general public, who are given an opportunity to comment.

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## Step 4.3  Develop draft objectives and indicators

A series of **objectives** now need to be identified in order to ensure that the vision and goals are achieved.

An objective is a more specific, measurable statement of what must be accomplished to attain a related goal. An objective will usually be translated into a series of specific management strategies and activities (See steps 6 and 7).



Attaining a goal is typically associated with the achievement of two or more corresponding objectives. Before the Joint Planning Team can identify specific objectives for achieving the goals and desired state, the team needs to have knowledge about the attributes of the area, their value, the threats that they face and what management interventions might be required. This information, gathered in Step 3, and documented in a Situation Assessment report, will now be useful to inform development of the specific objectives.

# CASE STUDY 4

# La Palma Marine Reserve



Photo: L. Corne

The La Palma Marine Reserve is situated in the Canary Islands on La Palma island, which has a population of less than 3000 people. The reserve was initially proposed in 1989 by natural scientists from the University of La Laguna. Their goal for the MPA was oriented towards conservation. Yet local fishers perceived the real goal to be the enclosure of the coastline for the benefit of compliance officials and recreational fishing interests. After the original proposal failed to gain support, a second proposal was made in the late 1990s by a network consisting of a local conservation group and local politicians. This proposal was supported by the Canary Islands government, which instructed the University of La Laguna to research the possibility of establishing an MPA on La Palma. With the goal of conservation in mind, the researchers suggested a design that included most of the coastline in a marine reserve. Local fishers opposed this design, though some were able to participate in the planning process. Two artisanal fishing organisations played a key role voicing this opposition. These non-profit organisations (known as *cofradias*) provide administrative support to fishers, as well as representing their interests. They participated in the planning process on behalf of their fisher members, and, having voiced their opposition to the existing design, offered their own design for a marine reserve with smaller boundaries. The goal for the *cofradias'* design was to minimise the impacts of the reserve on artisanal fishing activities, while still conserving species and habitat.

A change of government and public debate in the local media resulted in renewed political support for the La Palma marine reserve proposal. Sufficient political momentum was generated for the government to establish a consultation process that included the *cofradias*, researchers, and national and local government officials. The fisheries department stated that this process was to be informed by the interests of artisanal fishers, indicating a shift in the goals for the marine reserve. It was finally decided that the *cofradias'* design would be implemented, with some concessions to recreational fishers and conservationists.

A crucial factor shaping the eventual reserve design was the empowerment of the *cofradias*, which gained the legal right to be consulted in the design process. These representative organisations used their position to shift the goals of the reserve, and ultimately to influence its design. But this was also made possible by the public debate generated through the local media, and the political support of local and national government agencies. The *cofradias* also created a strategic alliance with recreational fishing organisations, to further support their goals for the reserve. Here we see a clear illustration of the politics of MPA goal formation.

This step might best be undertaken by a specialist group within the management authority (i.e. the Internal Planning and Management Team), which can prepare a set of draft objectives and then present these to the Joint Planning Team. *It is also useful to cross-check all the objectives against the human dimensions checklist (see Figure 5) to ensure that important issues have not been overlooked.*

A useful operational objective should be SMART:

**S** – specific and easily understood

**M** – meaningful and written in terms of what will be accomplished, not how to go about it

**A** – agreed, with stakeholders' responsibilities defined

**R** – realistic and relevant

**T** – time-bound: that is, defined within a limited time period

Examples of objectives that focus on the governance dimension of the human system:

❖ Establishment of a co-management structure, involving local resource users and other stakeholders, within one year.

❖ Rules of resource use and access clearly defined and socially acceptable by the end of year one.

❖ Joint Planning Team in place and meets with representative stakeholder groups after six months.

❖ Local and/or customary governance system recognised and mechanisms sought to incorporate these systems in management planning.

❖ Community organising and participation in decision-making strengthened and enhanced by the end of year one.

❖ Access to all stakeholders and transparency and simplicity of management plan ensured.

❖ User conflicts managed and/or reduced after year two.

❖ Common understanding of conservation value of the area.

> For example, in the Table Mountain National Park, one of the **goals** is to manage the tangible and intangible heritage of the park through the expression of diverse cultural identities. One of the **objectives** in order to achieve this goal is to rediscover, rehabilitate and nurture cultural heritage resources.

In some cases it may be useful to develop draft **indicators** for each of the objectives so that progress with respect to achieving objectives can be assessed. Indicators need to be practical and directly measurable and easily understood by a wide range of stakeholders. While a final list of indicators will only be developed once the different management options have been negotiated and agreed upon (see Step 6), it is useful to start thinking about the kind of indicators that will assist in assessing whether objectives have been attained during this step. The Joint Planning Team will need to discuss and agree on the draft objectives and preliminary indicators.

> An **indicator** is a unit of information measured over time that allows one to document changes in specific attributes of the MPA. An indicator is linked to a specific objective. An indicator also allows one to explore an objective that may not be directly measurable or is very difficult to measure (Pomeroy et al., 2004).

Various South African and international guidelines provide a number of indicators for assessing change and measuring performance (see Section B: Key references and recommended reading). It is useful when identifying and agreeing on the indicators for the MPA to look at the extensive lists in existing documents, select those that best match the area under consideration, and then add indicators that are specific to the site under consideration. Indicators can be both qualitative (descriptive) and quantitative (measurable). Some indicators of human dimensions are difficult to measure (e.g. level of resource conflict), and in some cases these indicators can only be assessed in a periodic evaluation by outside experts.

Some examples of socio-economic indicators are (adapted from Pomeroy et al., 2004):

❖ Local marine resource use patterns
❖ Local values and beliefs about marine resources
❖ Perceptions of local resource harvest
❖ Household characteristics and assets of affected communities
❖ Household income and distribution by source
❖ Distribution of knowledge to the community
❖ Percentage of stakeholder group in leadership positions

Some examples of governance indicators are (adapted from Pomeroy et al., 2004):

❖ Level of stakeholder involvement in surveillance, monitoring and enforcement
❖ Level of resource conflict
❖ Existence of a decision-making and management body
❖ Shared understanding of the conservation value and ecosystem services provided by MPA
❖ Local understanding of MPA rules and regulations
❖ Existence and activity level of community organisation(s)
❖ Degree of interaction between managers and stakeholders
❖ Level of training provided to stakeholders in participation
❖ Level of stakeholder participation and satisfaction in management processes and activities

In summary, by the end of this step the Joint Planning Team, in partnership and consultation with the Stakeholder Forum, will have developed the vision, goals, objectives and possibly draft indicators.

# STEP 5 Gather further information and conduct in-depth assessments

By this stage, a lot of important information will have been gathered through steps 2 to 4. The **key objective of this step** is to gather further information on human dimensions, and to conduct in-depth assessments where and when necessary.

Specific **activities** will consist of:
1. Identification of key knowledge gaps that require further investigation
2. Assessment and decision on who should conduct the in-depth assessments
3. Identification of the methods and tools to conduct in-depth assessments
4. Assessment of key issues and impacts of the proposed or existing MPA

## Step 5.1  Identification of key knowledge gaps

Steps 1 to 4 have provided information on environmental and social characteristics and conditions of the area, key attributes, values, threats, but also knowledge gaps and some issues requiring further investigation. Now that the goals and draft objectives have been developed, it is necessary to assess all the available information that has already been collected within the Situation Assessment report and to discuss these with the Joint Planning Team. This exercise will no doubt raise additional and more specific issues that require further investigation, as well as highlight key knowledge gaps that some or all of the stakeholders consider important, before specific management strategies and activities are proposed for the MPA. Knowledge gaps could relate to the human or ecological context.

**The importance of gathering information**

Understanding the human and ecological context of the MPA and how it is perceived at the local, national and global level is critical for the planning process. How one goes about this, and the depth of the data on the human dimensions that the team is able to gather, will depend on the human and financial resources available, the time created in the planning sequence for this and the availability of internal and external social science expertise. It will also depend on the scope of review being undertaken. In some cases it will not be feasible to gather and assess all outstanding information and only key information may be gathered in this step. Ongoing research activities on topics not covered in this step may be required in the management plan that is developed in Step 7. An interesting example of the importance of gathering information was when the Australian authorities reviewed the Great Barrier Reef MPA in 2004, and recognised that they needed to manage the human dimensions of the process carefully. They planned a region-wide process of social impact assessments that not only ensured stakeholder participation, but also set out to assess very specifically what the likely impact of different management scenarios would be on a wide range of different geographically and interest-based communities. They recognised that having scientifically defendable data on a range of human dimensions, and involving stakeholders in the process of planning, would greatly strengthen the likelihood of buy-in when difficult decisions had to be made (Voyer et al, 2011).

Lack of understanding of the complex suite of human dimensions under consideration can inadvertently lead to faulty planning. A common mistake is for managers to assume that the "human dimensions" refer to the economic issues and impacts associated with an MPA and the related social consequences of these economic impacts. In order to address this concern, many planners often employ experts to conduct economic and social impact assessments of MPAs, but often these studies are limited to the *economic impact of changes in access to resources* and they fail to consider the broad range of social and cultural values relevant to that MPA. History and historical management measures, for example, often determine how resource users perceive new planning proposals, and past practices can affect the stakeholders' willingness to collaborate.

There is thus a need to consider targeted, specific studies that aim to identify the different values of an MPA and to explore what the impact of any planned activity or management intervention on these values might be. As communities are not homogenous, it is also important to explore the values of different groups.

# The gender dimension of Marine Protected Areas (MPAs): Women at Hluleka MPA

Marine Protected Areas impact women and men differently, depending on the gendered nature of women and men's roles in different social and cultural contexts. In many countries, the role of men in fisheries and marine resource use is very visible, whilst the many roles and activities that women undertake often remain hidden, in part because they often harvest resources that are perceived as having less market value. In countries with boat-based fisheries, men tend to dominate the fisheries, whilst women predominate in shore-based inter-tidal harvesting. Women often provide unpaid labour in small-scale fisheries, assisting their male partners and family members in undertaking a wide range of work from preparing food for the fishers, cleaning fish and liaising with marketers. They are therefore often involved in a range of pre-harvest and post- harvest activities that are seldom accounted for in planning and management.

Along the Eastern Cape coast, women have a very lengthy history of harvesting inter-tidal resources. The introduction of a no-take MPA at Hluleka, coupled with external economic and social factors that impacted men and women differently, has resulted in men and women having very different needs and interests in the MPA. Women in Hluleka have historically relied on a wide range of marine resources for consumption and sale. In addition, they have relied on their household gardens and crops to supplement the diets of their families. While a few women do fish and catch crayfish to sell, most collect inter-tidal resources for basic household food security. Men in this region of the Transkei, however, have historically worked as migrant labour in the mines. The retrenchment of many men from the mines and high levels of unemployment in the past two decades has led to an increase in the number of men dependent on marine resources, and many men have turned to fishing as a means

of survival. The complete closure of the MPA and its gazetting as a no-take reserve in 2000 has coincided with this loss of employment and a decline in agriculture and livestock. This has forced men and women to continue to harvest and fish, despite the statutory restrictions on these activities in the MPA. However, unlike men who rely largely on fishing, the introduction of child care grants, primarily to women, has enabled some women in these communities to become less dependent on marine resources and simultaneously, less dependent on their male partners. This has impacted gender relations at household level which in turn, contributes towards shaping gender relations at community level.

**Limitations of current conservation planning tools to gather information**

In South Africa, the extensive work of the South African National Biodiversity Institute in undertaking national biodiversity assessments and developing related databases offers a very solid starting point for many protected area planning processes. In most instances a State of Knowledge Report is prepared as a planning tool. This collates existing knowledge and identifies data available on different components and attributes of the MPA. When planning begins in a protected area, assessments of the ecological components are available when the process commences, but information on the social, economic, cultural, political and governance context is often limited. In many MPA planning processes, ecological mapping is undertaken based on the best available scientific information. Decision-support tools are used to ascertain conservation priorities and to evaluate progress. In many of these cases the human dimensions are only considered after these priorities have been identified and are then considered in terms of the "costs" and "benefits" traded off against the most desirable state or conservation goals that have already been identified. This approach does not allow the planners to consider the way that different human dimensions might shape the research process, or how human dimensions intersect with ecological dimensions.

MPA planning is often largely informed by information from the natural sciences, but increasingly there are calls to incorporate a wider range of knowledge sources. It is thus important to recognise that local communities and other stakeholders (e.g. local recreation users, local fishing communities, elders from a nearby village, retired people who have lived in the coastal area for decades) have a wealth of knowledge that needs to be harnessed.  This traditional and local knowledge can provide understanding and insights on human dimensions and interactions across dimensions that is not documented. Such information can complement knowledge gathered by conventional scientific methods and assist in plugging knowledge gaps.

**Different knowledges**

One of the greatest challenges and opportunities associated with participation is the diversity of knowledges or "ways of knowing" that different stakeholders bring to the table. This is a challenge in the sense that it is often difficult for people deeply entrenched in one way of thinking to recognise and value other knowledge systems. In the context of MPAs, which is strongly founded on Western scientific understandings, the ideas arising out of traditional, local or indigenous ways of knowing are often difficult to assimilate. Equally, communities whose understandings are based on local knowledge and understanding of their immediate context may find scientific information extremely difficult to access and understand, especially if it appears to undermine their own perceptions. It is not unusual for different scientific or traditional viewpoints to be contradictory. It is also fairly common to find people expressing the view: "I don't believe in different ways of knowing, there is really just one." This is a view shared by some scientists, in particular, which seems to forget that yesterday's scientific "fact" can be shown through further research to be today's scientific fallacy. Recognising different knowledges and perceptions is, however, also an opportunity to increase and enrich the shared knowledge of the area and the resources. It often requires considerable discussion and negotiation to develop a common understanding based on different ways of knowing, but once reached, such an understanding can become a much more sustainable platform for management than any single, narrow, understanding (adapted from WIOMSA Marine Protected Area toolkit).
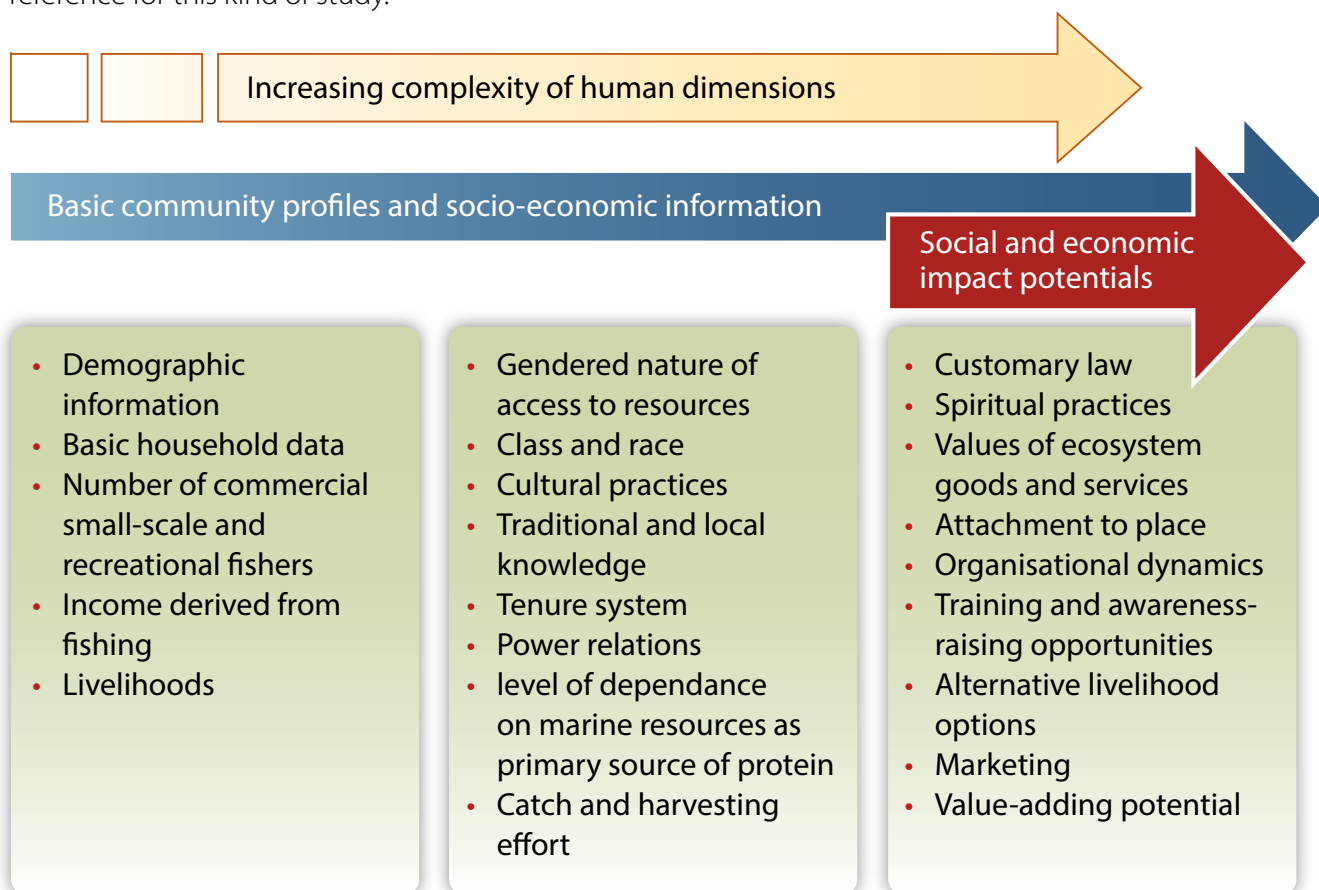
The Joint Planning Team should encourage workshops where local communities and conservation managers and scientists can share knowledge and discuss information requirements and the interpretation of existing information.

## Step 5.2  Who should conduct the in-depth assessments?

The Joint Planning Team will need to decide who can undertake this further investigation. In some cases information on key issues can easily be gathered by members of the conservation authority or by specific stakeholders. For example, community members may easily be able to provide lists of villages in the area, species harvested and local level institutions. MPA managers may also be well placed to collect certain information, such as data on the tourism value of the MPA, including visitor numbers, visitor use patterns and visitor preferences. In most cases, however, they will probably need to appoint consultants or specialists to undertake other specific studies on subjects such as livelihoods and markets for local resources.

In many cases more detailed investigations are necessary. Where expertise and capacity exist, individuals, institutions or the Joint Planning Team can gather information and undertake a study of some of these knowledge gaps. In other cases, it may be necessary to appoint specialists to undertake studies and assess key issues identified in the rapid on site appraisal process (see Step 3).

One approach would be to appoint a social science expert to undertake a detailed study such as a social impact assessment. In other contexts, where particular human dimensions require further investigation and assessment (e.g. aesthetic, heritage and access issues), it may be appropriate to appoint specialists for each impact being investigated. Information gathered during the rapid on site appraisal process, as well as during the vision and goals setting process, should inform the terms of reference for this kind of study.

Increasing complexity of human dimensions

Basic community profiles and socio-economic information

Social and economic impact potentials

- Demographic information
- Basic household data
- Number of commercial small-scale and recreational fishers
- Income derived from fishing
- Livelihoods

- Gendered nature of access to resources
- Class and race
- Cultural practices
- Traditional and local knowledge
- Tenure system
- Power relations
- level of dependance on marine resources as primary source of protein
- Catch and harvesting effort

- Customary law
- Spiritual practices
- Values of ecosystem goods and services
- Attachment to place
- Organisational dynamics
- Training and awareness-raising opportunities
- Alternative livelihood options
- Marketing
- Value-adding potential

**FIGURE 10**  Assessing the level and scope of the human dimensions information required

Figure 10 shows the increasing level of complexity of different human dimensions and can be used as a guide for the Joint Planning Team to decide on what key issues may call for outside expertise.

## Step 5.3  Methods to conduct the in-depth assessments

A range of methods exist for understanding and assessing human dimensions or social, cultural and economic relations and processes interacting within MPAs and between MPAs and surrounding systems. Several of these methods can also be used in assessing issues and impacts associated with an existing or proposed MPA. Some important methods and tools for understanding human dimensions are outlined below (see also Section B: Key references and recommended reading).

### Baseline data

In most cases it is desirable to develop a baseline of key information that can inform decisions and provide a foundation for further knowledge about the MPA system. Such baseline data needs to be reviewed after a while to assess whether objectives have been met, and where a situation has improved through effective management of the MPA. Baseline information includes quantitative and qualitative data that describe and explain *the existing conditions and past trends that are relevant to the human and natural environment* associated with a particular MPA planning and management process. For example, baseline socio-economic data is essential for sound and useful social science research related to the human dimensions of MPAs. Currently, this data is scarce. Baseline data can be used to determine the historical context and current conditions, to predict the potential effects of MPAs and attendant ecological, regulatory, social and economic change, and as a standard against which such effects can be measured. Baseline data on human dimensions could consist of basic demographic and household data, catch and harvesting information, activities and operations of local fisher organisations or MPA-related co-management structures (see the range of human dimensions outlined in Figure 5).

For example, to assess the loss of access to livelihoods likely to be caused by a proposed MPA, the following questions would need to be explored:

❖ Information on the number of people or households dependent on marine resources for food
❖ The percentage of household food obtained from marine resources
❖ The contribution of marine resources to livelihoods or household income
❖ Levels of poverty in the community

Thus, a social impact assessment can be employed to assist in gathering socio-economic baseline data and investigating the consequences of a proposed MPA or zonation or management scenario on local communities and other stakeholders. This would usually be conducted by an independent social scientist who would work closely with a facilitator fluent in the local language(s).

The development of mechanisms to incorporate the documentation and integration of local and traditional knowledge is also critical. Various methods exist that can be used by the Joint Planning Team as well as the Internal Planning and Management Team to develop context and area-specific methods for integrating local and traditional knowledge with the ongoing planning, assessment, monitoring and evaluation processes (see Section B: Key references and recommended reading).

**Cost-benefit analysis**

Cost benefit analysis is currently the most common framework used (FAO, 2008:15) to assess the positive and negative economic costs associated with a particular management intervention such as an MPA. Variations of this sort of economic analysis are used to understand the relationship between people's values and the significance of different components of the MPA system. For example, in 2006, the WWF funded such a study to assess the value of the Garden Route MPA (WWF, 2006). This study attempted to identify the use and non-use values associated with the Garden Route MPA. In a more recent study, as part of a regional planning process, SANParks commissioned a study to assess the potential impact of an MPA on components of the fisheries in Algoa Bay (Turpie et al, 2012).

While these analyses may provide a useful indication of the economic value of a MPA, such an economically-oriented assessment might not capture the full range of values attached to a marine and coastal system, such as the social and cultural values that are not easy to quantify. In many instances, a dedicated social impact assessment might be required.

**Social impact assessments** include the processes of identifying, analysing, monitoring and managing the intended and unintended consequences, both positive and negative, of planned interventions (policies, programs, plans, projects) for various human dimensions, and any social change processes invoked by those interventions. Its primary purpose is to bring about a more sustainable and equitable socio-ecological system.

Typical tools that are used in social impact assessments include household surveys, focus group meetings, rapid rural appraisal, participatory rural appraisal, informant interviews and participant observations. Secondary data sources such as poverty studies conducted in the area, management plans and data from Integrated Development Plans are often used to support data gathered. Other tools that are also useful for gathering information and informing decisions are social mapping, transects walks and problem trees.

**Social mapping** (method)

Social mapping is a visualisation technique closely related to stakeholder analysis and cognitive mapping. It allows stakeholders to draw maps illustrating their interrelationships and their relationships with natural resources or other features of a particular location.

The importance of social mapping, like many other visualisation tools, lies in its ability to elicit information from stakeholders in a format that is easily understood and shared. This can serve as the basis for fruitful discussions and decision-making. When different stakeholder groups (e.g. fishers and hoteliers), or people with different attributes within the same group (e.g. men and women) each produce a social map, their outputs can be compared in workshop sessions to determine and discuss reasons for similarities and differences. Since social maps reflect perceptions, attitudes, beliefs and values, the information shared can help the parties understand one another better and assist researchers or planners who need to take these differences into account in their work.

**Transect diagram and walk** (tool)

A transect diagram represents a cross-section of an area, for instance on a line running from the near shore to some distance inland. Biophysical, infrastructural and socio-economic features are inserted to show the social-ecological characteristics of that section. A walk along the transect can be used to either construct or validate it, or both.

It is a useful low-cost method for gathering and sharing information in which all stakeholders can participate. Transects of various parts of the coastline can be used to enhance learning about ecosystems. If digital photographs or measurements are taken, the transects can be used in monitoring trends, like ecological sampling stations. In this case the samples can be of human activity. The walks can be used for both information acquisition and dissemination, as well as for planning in a participatory manner.

**Problem trees** (Information-gathering and decision-making tool)

The problem tree is an analytical tool, usually part of a participatory planning process, to logically and visually identify the root causes of observed problems by linking and hierarchically clustering a series of problems. It can complement other tools, and forms an important part of the planning toolkit, particularly in rapid or participatory rural appraisals, where the visualisation lends itself to use in the field with any stakeholder group. Problem trees are useful when planning according to the ecosystem approach to fisheries where there are multiple problems, the relations between which are not easily discernible to stakeholders. Use of the problem tree method shows participants that their problems are being taken seriously. Relating problems to each other is a useful means of emphasising the shared ownership of agreed-upon issues.

# Step 5.3  Assessment of key issues and impacts

Economic and social impact assessments allow for more precise quantitative and qualitative information with regard to impacts of a proposed or existing MPA. Table 3 provides some examples of impacts on human dimensions.

**TABLE 3** Examples of negative and positive impacts on human dimensions

| Negative impacts | Positive impacts |
|---|---|
| Loss of cultural heritage through banning of fishing gear | Increased employment through tourism-related opportunities |
| Loss of access to marine resources and consequent loss of access to food and livelihoods for communities living adjacent to the reserve | Increased catches within buffer zones or preferential-use areas |
| Loss of access to resources for building materials | Mitigation of conflict between different user groups |
| Loss of access to religious and cultural sites | Increased visitor numbers to protected area |

Impacts can be both positive and negative, so one needs to ascertain whether they are significant or not, and to whom. There are various methods for determining the significance of an impact: these usually relate to its severity, magnitude and duration, and whether it is reversible or not. The specialists conducting the study should be required to give an indication of the significance of these impacts. Based on a set of criteria, it is usually clear whether an impact is of high, medium or low significance. The Joint Planning Team will then need to consider all the information presented and whether the impact determination is appropriate. Giving an indication of the significance of the impact is helpful for the next stage of the process, when management scenarios are considered and evaluated. Depending on which management intervention is selected, impacts may be avoided, minimised or increased.

The importance of taking account of human dimensions, and specifically the cultural and religious dimensions, in planning and decision-making is highlighted in the example below. Failure to do so can lead to a host of negative repercussions, including costly and time-consuming legal action.

At the end of step five, the Joint Planning Team should possess a sound information base on ecological and human dimensions, as well as an overview of the potential impacts that could result from MPA related activities and interventions. Findings from the specialist studies or any other in-depth assessment should be documented in a report, so that this information can be made available and discussed with members of the Stakeholder Forum and can inform decision-making.

## Summary of the type of information available at this stage:

❖ Baseline demographic and socio-economic data (income, livelihoods, education etc.) on communities living in an area or adjacent to an existing MPA
❖ Visitor numbers and expectations
❖ Recreational user activities and expectations
❖ Stakeholders' priorities with regard to vital attributes
❖ Key issues and impacts, both positive and negative (e.g. loss of livelihoods, protection of threatened habitats, enhanced tourism revenue to the region)

# CASE STUDY 6

# Recognising and protecting sacred natural sites



Photo: D du Toit

For the Muslim community, the location of a kramat (mausoleum), with the graves of significant community leaders and slaves, on the slopes of Table Mountain overlooking the Oudekraal coastline endows this site with spiritual significance.

In a landmark judgment in the High Court, upheld in the Supreme Court of Appeal in 2009, in the matter known as Oudekraal Estates (Pty) Ltd v The City of Cape Town and others (25/08), conservation interests, Muslim religious rights and cultural heritage were balanced against the property and development rights of citizens. In this case, in which SANParks was the third respondent in its role as the conservation authority responsible for the conservation of Table Mountain, the High Court judge said:

*There can be no doubt … that the presence on the land of religious and cultural sites of particular significance to a sector of the Cape Town community was a factor that should properly have been taken into account*

*and evaluated, also on pre-Constitutional principles, in coming to the decision whether to permit the establishment of a township.*

In its judgment the court took into consideration the right to freedom of religion and culture of members of the Muslim community, as well as the right of the broader community to have a heritage and environmental area of high significance preserved. The High Court concluded that it was without doubt conservation-worthy, not only for South Africans but for all humanity, and that the proposed development would indeed severely devalue Table Mountain as a heritage resource. This judgment restated the words of General J C Smuts, who had said as early as 1923:

*We, as a nation, valuing our unique heritage, should not allow [Table Mountain] to be spoiled and despoiled, and should look upon it as among its most sacred possessions, part not only of the soil, but of the soul of South Africa. (www.saflii.org/za/cases/ZASCA/2009/85.pdf).*

# STEP 6 | Identify and evaluate different management scenarios

Once the information has been gathered and analysed and the key issues and impacts assessed, these findings must be presented to and discussed among all the stakeholders. The **key objective of this step** is to identify and evaluate the most appropriate management scenarios for the MPA.

*Facilitated discussions will allow MPA planners, managers and stakeholders to consider all the information together, evaluate issues and impacts, reflect on the key attributes, vision, goals and objectives set earlier in the process, and prepare different management scenarios that can be discussed and negotiated with the various stakeholders.*

The availability of information on a broad range of human dimensions, as well as issues and potential impacts, will help MPA managers and conservation authorities identify potential risks, and also the benefits and losses associated with different management options. The research that is undertaken can then be used by the Joint Planning Team to make critical decisions about the potential impacts of different alternatives and management scenarios on different groups and to weigh up the most appropriate management strategies and activities.

## Participatory problem solving and conflict resolution

MPAs are controversial in nature, especially those that are designed as multiple use sites, and whose stakeholders represent divergent interests. If not adequately addressed, conflict will undermine the management of the MPA. Managers would generally be wise to face the conflict head-on by engaging stakeholders and working collaboratively towards common solutions. This participatory approach is based on the idea that with adequate investment in a facilitated process, and willingness to take the time needed to work through conflicts, an agreement on difficult resource management issues can be achieved between and among stakeholder groups with different interests. Conflict can be destructive, but if it is addressed and well managed, it can actually produce positive and long-lasting results. Conflict can be used to uncover important differences and guide the way to positive change. Participatory problem-solving involves relationship-building and may include the need for outside assistance to facilitate the process. One of the best ways to start to address a problem is to focus on the interests or principles, rather than on individual stakeholder agendas or positions. All parties must acknowledge that as many of their interests as possible need to be met if the agreement is to be sustainable. This will require innovative solutions, yet even then all stakeholder needs may not be fully met, so willingness to compromise is essential. In addition to having their interests met, it is very important that all relevant stakeholders be included and that they feel that they have been listened to and understood (WWF, 2007).

Evaluation of different management options to support the vision, goals and objectives identified in Step 4, taking account of the human and ecological information available and in particular the negative impacts identified, is not an objective technical process. It involves subjective value judgements and trade-offs that cannot be reduced or easily quantified. Ideally, facilitated discussions and deliberation among the Joint Planning Team will lead to consensus regarding the management strategies and activities most likely to serve both human and ecological objectives, and indeed the vision and goals agreed upon by the Stakeholder Forum. However, where differences cannot be reconciled and compromises cannot be reached through techniques such as the Delphi technique, mediation may be required.

**The Dephi method**

The city of Delphi was where people came to Apollo's temple to consult the resident oracle, who could foresee the future. The purpose of the Delphi method is to elicit information and judgements from a group to facilitate problem-solving, forecasting, planning and decision-making (Neuman, 1994). It often involves putting together a panel of experts on a particular topic to determine consensus on an issue. This method is used both for information acquisition and in process.

There are many variations of the Delphi method. While some can be used in face-to-face meetings, most seek to avoid physically assembling the experts. Instead, these days, information is exchanged via email. This takes advantage of experts' creativity while facilitating group involvement and interaction. Delphi is designed to reap the benefits, but reduce the liabilities, of group problem-solving. This is important because ordinary meetings of diverse experts with different disciplinary backgrounds and academic or professional status can be difficult to manage, even with a facilitator. Such meetings are expensive to organise if the experts reside in different corners of the world.

Once there is broad agreement on the management scenarios that would best serve the goals and objectives identified in Step 4, it is necessary to identify the combination of management strategies and activities for giving effect to the goals and objectives. These often fall into distinct categories, although they frequently overlap (adapted from CBD, 2012):

❖ **Establishing or changing protection levels:** Strategies to change protection levels may mean creating new protected areas, fostering the creation of other conserved areas, and/or creating new corridors and buffer zones. Rezoning may be necessary in some instances. Some of the core locations may be strict no-take areas, while others may be converted into community conservation areas. Within the Pondoland MPA, several areas are closed to boat-based fishing while small-scale fishers are allowed to fish from the shore.

❖ **Developing or changing management practices:** Strategies to change management practices include managing species within protected areas to improve connectivity, improving habitat, and/or improving ecological functions and processes. Strategies related to human dimensions may include developing dedicated awareness programmes, improving co-management arrangements and connecting with other mandated agencies in order to foster job creation and explore complementary livelihoods.

❖ **Changing laws and policies:** Strategies to change laws and policies include changes to policies relating to any of the natural resource sectors (e.g. land use planning, invasive species), as well as specific protected area laws and policies. This set of strategies may also entail the creation of new laws and policies (e.g. a new land tenure law), and the elimination of inappropriate laws and policies, such as perverse incentives and conflicting land tenure laws.

❖ **Changing sectoral practices:** Strategies to change sectoral practices are as varied as the sectors themselves. These may include strategies to foster appropriate siting and configuration of infrastructure (e.g. mining operations, roads, intensive forest plantations), as well as strategies to discourage negative policies and practices in natural resource sectors (e.g. discouraging heavy pesticide use near key freshwater areas).

❖ **Changing the enabling environment:** Strategies to change the enabling environment include improving national leadership, improving co-ordination and communication among sectors, improving the legal and judicial environment, and promoting public awareness. Specific actions could include public campaigns, lobbying, advocacy and capacity-building.

❖ **Changing the physical environment:** Strategies to change the physical environment primarily include strategies to restore species and habitats within new or existing protected areas, corridors and buffer zones. Specific actions could include the removal of invasive species or food security projects such as mussel reseeding on denuded intertidal reefs.

Examples of specific management strategies relating to *access* include:
❖ Zoning the coastal environment (each zone being subject to different rules)
❖ Concessions, operating permits and quotas (instruments that can be adjusted to the situation of the natural resources at a particular moment)
❖ Preferential use rights for certain users (e.g. according to customary rules)
❖ Certificates or identify cards to distinguish local rights holders from other users

These strategies can be used to set up flexible systems of access and use at any point on a spectrum from open access to strict and absolute protection. Another important element of flexibility would be the introduction of compensatory agreements. For example, if a stakeholder is asked to forego access to an important resource or area, a complementary accord can be set up to compensate for this loss and make sure that no one is deprived in terms of livelihood. Agreements can include decrees and by-laws, modified tax systems, monetary compensation schedules, new policies, and specific projects in support of certain parties.

In situations where indigenous peoples or traditional communities are associated with the MPA site, customary management practices and rules for certain natural resources often already exist, and have ensured sustainable resource use for generations. Where such practices and knowledge exist, it is always best to start by recognising and giving full attention and value to what exists (Borrini-Feyerabend et al, 2011:111). In such cases, it is important to pay particular attention to traditional skills, knowledge and know-how. The implementation of negotiated management arrangements represents a real opportunity to consider existing and customary practices and governance approaches that may have occurred in the past and have stood the test of time as these governance systems are more likely to have local community support. It may even be useful to explore the formation of community-managed MPAs, especially where community structures are strong and effective.

# CASE STUDY 7

# Community-based, locally managed marine protected areas in Fiji


Photo: B. Crosse


Photo: P. Moore

In the early 1990s the residents of Ucunivanua village, Fiji, realised that their livelihoods were under threat. The community of Ucunivanua decided to take the situation into their own hands. In 1997, with the support and leadership of researchers at the University of the South Pacific in Suva, Fiji, they established a locally managed marine area (LMMA). This took the form of a 24-hectare no-take zone on the mudflats and seagrass bed directly in front of Ucunivanua village. The aim was to restrict the harvesting of kaikoso clams to allow their numbers to regenerate and to encourage their settlement in neighbouring areas. This built on the existing tradition of enacting tabu prohibitions on fishing for certain species. Following a series of workshops with the community, a management team of 20 local men and women worked with the chief and elders of the village to hold a traditional ceremony declaring the area closed for three years.

The Ucunivanua LMMA yielded dramatic results. Seven years after the implementation of community-based marine resource management in the village, the kaikoso clam was once again abundant and village incomes had risen significantly.

## Establishing a community-based network

Since the establishment of the Ucunivanua LMMA in 1997, the use of LMMAs to address overfishing has spread rapidly throughout Fiji. In 2001 stakeholders from all around Fiji came together, including NGOs, research institutes, government departments and community leaders, and established the Fiji LMMA Network as a forum in which communities implementing LMMAs could share their methods and results. The network's objectives include encouraging collaboration between government departments, NGOs and communities to manage Fiji's traditional fishing grounds better; engaging in collective advocacy for LMMAs; creating joint policy briefs based on collective learning; and encouraging the use of adaptive management as a key to achieving best practice.

The network's approach recognises the autonomy of local communities in managing their marine resources, while simultaneously providing a network of support and guidance to help them achieve the best possible results. The network is responsible for planning and facilitating the programme, while the decision-making, implementation and evaluation are undertaken on the ground by the individual groups.

*This case study was adapted from: United Nations Development Programme. 2012.*

In many cases it will be important to situate the MPA and its related management arrangements into the broader landscape of coastal and fisheries governance for the area. For example, zonation of a fishery near an MPA may benefit from the actual MPA, and boundaries may need to be aligned. This process is commonly known as Marine Spatial Planning. In some cases, during an MPA planning process, an MPA may not be the most appropriate management tool after consideration of the findings of the rapid appraisal and the more detailed studies and assessments. In this case, a marine spatial planning process may assist in identifying the most appropriate fisheries management strategies and activities to achieve the goals and objectives agreed upon by the Joint Planning Team. It must be noted that environmental and fisheries law in South Africa also allows for the declaration of fisheries priority zones and special management areas. If an MPA is the agreed-upon management tool, then more detailed planning follows as outlined in these guidelines.

### Marine spatial planning

Marine spatial planning is a framework that provides a means for improving decision-making as it relates to the use of marine resources and space. It is based on principles of the ecosystem approach and ecosystem-based management. All marine spatial planning exercises are spatial (place-based) management processes, no matter at what scale and in what social context or biome they are being implemented. Marine spatial planning is not an end in itself, nor is it a specific policy; rather, it is a planning framework that focuses on the unique and dynamic spatial planning requirements in marine ecosystems to sustain the goods and services society needs or desires from these environments over time (Secretariat of the CBD, 2012).

Based on an improved understanding of the issues and impacts, and bearing in mind the attributes and values that make the area worthy of protected area status, the Joint Planning Team has now identified and agreed on various management strategies and activities and is now ready to revert to its draft objectives and begin to prioritise and finalise the objectives and indicators. This will take place during the development of a management plan.

## STEP 7    Develop or review the management plan

The **objective** of this step is to develop an agreed plan that will guide the management of the proposed or existing MPA.

Once an assessment of the various management scenarios has been finalised and consensus has been reached, the goals, objectives and key management strategies and activities to achieve these objectives need to be documented in a management plan. Draft or final management plans currently exist for most MPAs in South Africa. This step in the process provides an opportunity to ensure that the range of human dimensions presented in these guidelines are adequately addressed. By following steps 1-6, the Joint Planning Team will now be in a better position to review the existing plans, and address shortcomings or develop a new management plan.

In general, the management plan will include the vision, goals, objectives, management strategies and activities as well as indicators. A core element of this plan is the documentation of appropriate strategies and activities to ensure that the goals and objectives are met. Other components that should be included in the management plan are:

1.  Activities that aim to encourage ongoing communication with local communities and other stakeholders – i.e. regular forum meetings
2.  Mechanisms for addressing problems and unforeseen consequences
3.  Processes for involving stakeholders in management activities including monitoring and enforcement
4.  Clear indication of who is responsible for implementing particular strategies and activities and the timeframes required

The scope and focus of management plans is likely to change over time as understanding of the environmental and human system deepens and expands. Socio-ecological systems themselves are complex and highly dynamic.

*The actual issues that are selected for attention, the particular goals and objectives that are identified and the impacts that are foreseen and assessed will always be a reflection of the constellation of power relations, dynamics, needs and interests, levels of knowledge and understanding of the humans involved in the planning process. As such, the plan will always represent a negotiated outcome – "work in progress" – that will change and can be adapted according to shifting dynamics, new information and future interventions.*

A typical management plan will include:

1.  Purpose of the plan
2.  Vision, goals and objectives of the MPA
3.  Management standards, i.e. the indicators for each objective
4.  Management activities and strategies including timeframes and responsibilities
5.  Control rules
6.  Resources to implement the plan
7.  Implementation and action plan
8.  Monitoring protocol
9.  Reviewing schedule
10. Appendices (stakeholder contact list, knowledge base, etc.)

In most instances, a management plan already exists and will therefore need to be reviewed. In a process of review, systematically implementing the activities listed in Steps 1-7 will ensure that human dimensions are integrated into each stage of a review process, thereby enabling the management plan to be revised and updated accordingly.

## STEP 8  Monitoring, evaluation and adaptation

The key **objective** of this step is to develop a comprehensive monitoring and evaluation programme. Effective planning is one of the cornerstones of effective management. Achieving MPA objectives requires that well-defined management plans be developed, measures of MPA progress and success defined, impacts of management actions monitored and evaluated, and the results of these activities fed back into the planning process to revise objectives, plans and outcomes. In other words, MPAs need to be adaptively managed. It is only by deliberately integrating monitoring and evaluation into the overall MPA planning and management process that the benefits of adaptive management can be fully realised. Key **activities** in this step will be to set up a participatory monitoring programme as well as to plan for periodic evaluation and review.

> "**Adaptive management** is the cyclical process of systematically testing assumptions, generating learning by evaluating the results of such testing, and further revising and improving management practices" (Pomeroy et al, 2004: p. 18).

In order to ensure an adaptive management process, an effective monitoring and evaluation programme is crucial. The principal reasons for developing such a programme are:

❖ To assess the status of the key values (ecological and human dimensions of the MPA)
❖ To determine whether management is achieving its objectives, having its intended impact and being effective

## Step 8.1  Participatory monitoring

**Monitoring** is an interactive feedback process that identifies successes and problem areas while the management plan is being implemented. It provides information, so that partners can assess whether the MPA management plan is progressing as envisaged, and whether modifications are needed. Monitoring is thus the regular recording, review and analysis of information for the purpose of assessing progress and impacts. Ideally, the monitoring process should begin when activities based on the management plan are being implemented. As such, monitoring is ongoing, while an evaluation is done at certain points in time. Both activities, however, often rely on the data gathered during the monitoring process. It is also important to secure the necessary funding to undertake monitoring and conduct a thorough evaluation at regular intervals.

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### What resources are needed for monitoring and evaluation?

Before developing an ongoing monitoring and evaluation programme it is necessary to estimate the human resources needed to gather the data and to measure and analyse the selected indicators. For example:

- How many people will be required?
- What components and processes need to be monitored?
- How large a population needs to be sampled?
- How long will it take to complete the evaluation?
- What skills are necessary?
- What equipment and transportation are required?
- What infrastructure is needed?

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Ecological and human dimensions of the MPA should be monitored, as well as the management process itself. Indicators are used to monitor goals and objectives, and to check whether the MPA has not only achieved its conservation objectives (such as the reversal of biomass and biodiversity loss), but also resulted in an improvement in the living conditions or socio-economic circumstances of the communities concerned. In this respect, the collection of biological and socio-economic baseline data before the setting up of the MPA is indispensable to compiling a good comparative set of information (see Step 6).

Monitoring activities can be undertaken by MPA managers and conservation authorities, researchers and/or other stakeholders. In some cases, participatory research is undertaken in which different stakeholder groups work together to collect and analyse data. Simple and robust indicators are essential for monitoring. A monitoring system that is too detailed is often of interest only to scientists, and may overload the data collection routines. As a consequence, monitoring may not be properly carried out and information may end up being incomplete and/or unusable.

# Community catch monitoring for the Coffee Bay mussel rehabilitation project



Between 2000 and 2009, the University of Transkei (now Walter Sisulu University) worked closely with the small-scale fishing community of Coffee Bay on the recovery of the mussel resource along its shores. The Mussel Rehabilitation Project aimed at piloting a resource rehabilitation technique at several over-exploited ridges and develop a community-based management plan for the sustainable utilisation of the newly rehabilitated resources. At the outset, the project team trained and employed community monitors to collect information about the number of mussel harvesters and weigh their catches from the ridges in the vicinity of Coffee Bay. The monitored coastline was divided into two sections and two community monitors were employed. Each monitor walked his/her section 16 days a month (four days before spring low tide and four days after), from three hours before low tide until three hours after. They walked the area from east to west one day and from west to east the following day. The data collected was used to establish catch-

per-unit-effort trends over time and for the various ridges. In combination with yearly fishery independent stock assessments, the local co-management committee, comprising the project team and local fishers, was able to steadily increase individual bag limits on the rehabilitated ridges, while maintaining sustainable harvesting levels. By working with monitors employed from the community, the project quickly gained legitimacy among the wider fisher community, as its representatives were actively involved in day-to-day management activities and were able to clearly demonstrate increased catches and benefits.

In the case of an MPA that has been in existence for some time and does not have baseline data, a monitoring system would need to be developed through interaction with the stakeholders affected by or interested in the MPA. However, if indicators have been agreed upon through this step-by-step process, the task would be to evaluate progress and impacts against the indicators selected.

## Step 8.2  Evaluation and review

**Evaluation** is a process of measuring the extent to which objectives are being realised against results at specified timeframes. Indicators would have already been identified in Step 4 and finalised in Step 6 to assist in evaluating management performance. Evaluation allows for modifications to the management plan or protocols and allows for future planning based on experience. The baseline information collected during Step 5, as well as the information derived from the monitoring programmes, would be used for the evaluation. Evaluation is a once-off activity (preferably repeated regularly e.g. every two or three years). Individual projects may be evaluated, or the management effectiveness of the MPA as a whole may be assessed (see, for example, the WIOMSA MPA toolkit in Section B: Key references and recommended reading).

Conservation authorities and other stakeholders may have very different perspectives on these issues. Thus the involvement of local communities and stakeholders in the design of the evaluation is crucial, as they may be interested in questions that differ from those of the government, managers or scientists. Stakeholders can also be helpful in the data collection and analysis aspects of the evaluation process. Local stakeholder participation can provide opportunities for developing stronger relationships between conservation authorities and local community members. Also, local community members may be more aware of cultural complexities. As such, best practice would be to set up an evaluation team, consisting of the MPA managers and conservation authorities, as well as primary stakeholders such as community members. In some cases it may be desirable to have an external team of evaluators who review the information and engage with relevant local communities and stakeholders to evaluate management effectiveness.

One of first tasks of the evaluation team is to draft an evaluation plan. Such a plan should clearly and concisely answer these questions (Pomeroy et al, 2004):

❖ Why is the evaluation being done?
❖ Who is the audience for the evaluation results?
❖ Who should participate in the evaluation?
❖ What methods will be used to measure the indicators?
❖ What resources are needed to measure these indicators?
❖ What is the timeline for carrying out the evaluation?
❖ How is the data to be managed and analysed?
❖ How will evaluation results be communicated and used for decision-making?

It is important to validate the results with community structures, other stakeholders and, where there are complex issues and conflicts, an independent peer review. Particular human dimensions may be highlighted as problematic, and this may call for further information, a specialist study or further engagement with stakeholders. As such, the MPA planning and management process is iterative and may revert to an earlier step (see Figure 6).

The results of any evaluation will be used to adapt management strategies, and in some cases may call for a revision of the MPA objectives, or even a re-think of management strategies and tools.

# IMPLEMENTATION

# 3  Implementation

Implementation of these guidelines requires political commitment, access to financial and human resources, awareness-raising, training and capacity development, experimentation and adaptive learning. Adopting a more holistic, participatory and people-centred approach to MPA planning and management is likely to be more time-consuming than current approaches and require additional resources. However, as highlighted in the introduction to these guidelines, addressing human considerations is a critical requirement in MPA planning and management and will contribute to long-term sustainability.

## 3.1  Political commitment

While several conservation agencies in South Africa have expressed the need to give greater attention to the human dimensions in MPA planning and management, there needs to be clear support from senior levels of government (including top management in DEA, DAFF and SANParks, as well as all the provincial conservation agencies) to ensure effective implementation of these guidelines. This will require a paradigm shift among the conservation community, and a willingness to address human dimensions in all aspects of MPA planning and management. It will also require bold leadership and guidance from top management to ensure that this more holistic and people-centred approach to marine spatial planning and conservation management is embraced by their institutions and managers.

## 3.2  Access to financial and human resources

Government commitment is also required in terms of providing funding for awareness-raising, training and capacity development as well as skills training of conservation officials. There is a need to raise awareness among conservation agencies, local communities and other stakeholders of these guidelines and the processes that are being recommended for planning, managing and evaluating MPAs. Furthermore, funding is required to ensure that staff within these agencies are equipped with the requisite social science and facilitation skills to implement the guidelines. At first it may be necessary to appoint specialists to undertake this work while funding for appropriately qualified staff is obtained.

Where funds are not available to embrace this more holistic approach, national government and conservation agencies will need to seek funding from external donor agencies, until the capacity to deal with human dimensions is in place in all MPAs in South Africa. It is thus critical that government officials from the coastal and marine divisions of the government departments concerned participate in international forums on protected area management, such as Convention on Biological Diversity meetings, to learn about opportunities for funding for more holistic and people-centred approaches to MPA planning and management.

DEA and DAFF will also need to ensure that the evaluation systems currently adopted in the various MPAs are expanded to consider and address human dimensions systematically. This will require revisions to the annual evaluation process currently being implemented by WWF, which has a strong ecological focus.

## 3.3 Awareness-raising, training and capacity development

The successful implementation of these guidelines depends to a large extent on general awareness raising, and effective training and capacity development that enhances understanding and knowledge, and develops the necessary skills to adopt a more holistic and people-oriented approach to MPA planning and management. In terms of general awareness raising, WWF South Africa, which commissioned these guidelines, is encouraged to circulate them to all environmental and conservation agencies and authorities that play a role in MPAs. Discussion of the guidelines at the annual MPA forum would be an important vehicle for improving understanding of their core aim and the key steps required to integrate human dimensions into all stages of MPA planning and management. Equally important is raising awareness of the contents of the guidelines with local communities and other stakeholders that are affected by MPAs, or live adjacent to MPAs. However, if MPA managers follow the process outlined in the guidelines, the involvement of local communities and other stakeholders will commence at the outset of any planning process or strategic review or evaluation exercise, and will gain understanding of the purpose and contents of the guidelines through being involved throughout the process.

Identification of training and capacity development needs, including a skills assessment of officials engaged in various aspects of MPA planning and management, will need to be undertaken. This activity should be led by DEA, but with input from the conservation and research agencies. Currently there is limited expertise in conservation agencies in the fields of social science, community development and engagement and participatory governance. Appropriate training and capacity development courses or programmes will therefore need to be developed. In the short term, one- or two-day courses focusing on the guidelines and how to implement them could be developed and implemented for MPA managers. This activity could be driven by a group of consultants or researchers. In the medium term it would be advisable to incorporate the guidelines into the MPA-accredited training course that is offered by Rhodes University. Attention needs to be given to providing training and capacity development courses and materials that are pitched at the correct level, context appropriate, and include materials that are relevant and accessible to local managers. Translation of the guidelines into at least Afrikaans, isiXhosa and isiZulu should be undertaken.

## 3.4  Piloting the guidelines

While the guidelines should ultimately be distributed for use by all MPA managers, it is recommended that they be piloted in one or two MPAs as soon as possible. This process should be carefully monitored by the DEA, WWF South Africa and the University of Cape Town MPA human dimensions team, so that lessons learned from the application of the guidelines can be addressed and modifications made.

As mentioned in this document, it is unlikely that any MPA manager will follow the steps chronologically unless embarking on a new MPA planning process. Most managers will refer to the guidelines when a problem arises or when it is time to conduct a strategic review or evaluation. Application of the guidelines in one or two sites will determine to what extent the process can be adopted at any stage of the MPA planning and management process, whether the process is robust and whether supporting information is appropriate. This pilot exercise may signal that modifications to the process or document are required in order to clarify, simplify or streamline the steps outlined in the guidelines.

The guidelines are intended to be a living document that can be updated and revised every few years to ensure that the community of MPA managers and associated stakeholders contribute to improving the practice of MPA planning and management in South Africa continually.

In the following  section of the guidelines, the various human dimensions presented in Figure 5 of these guidelines are explained in greater detail. The human dimensions have been grouped into five main themes – social, economic, cultural, political and governance (including institutional) – and each theme contains a number of more specific human dimensions associated with that theme. A brief explanation of each human dimension is presented here but the reader is referred to the key references and recommended readings at the end of these guidelines for further information.

# SECTION B

## SUPPORTING INFORMATION

- Factsheets: Unpacking the human dimensions
- Key references and recommended readings

# Gender, class and ethnicity

The concept of **gender** is widely used but not always well understood, even in the social sciences, and in many developing countries there has often been a lack of political will and capacity to incorporate gender considerations into policy and decision-making processes. However, global institutions increasingly recognise that gender roles and relations (together with the dynamics embedded within them) need to be part and parcel of development agendas and policy-making processes, especially in developing countries. "Gender" is not only used to differentiate between the male and female sexes, but refers to the masculine and feminine attributes and characteristics ascribed by society to people bearing male and female sexes (FAO, 2013). These attributes are socially constructed and are learned through socialisation processes; hence individuals are born male or female, but through socialisation learn to be men and women. For instance, in society gender usually determines what is expected, allowed and valued in a woman or a man in a given context. A key aspect of gender is that it defines the social relations and the balance of power between the sexes.

**Ethnicity** relates to or is characteristic of a human group whose members share racial, religious, linguistic and certain other traits. **Class** relates to social stratification in which people are grouped into a set of hierarchical social categories, the most common being the upper, middle, and lower classes.

In many rural areas of developing countries around the world, patriarchal and patrilineal systems have been used for centuries to determine access, control, power, participation and decision-making, both in households and at community level. These practices have continued for generations, and gender roles and relations still play a role in shaping resource access and use patterns in certain communities, usually in favour of men. In rural or marginalised areas where people rely on natural resources, women often struggle against gender discrimination and face various inequities in relation to men when it comes to accessing resources and exerting influence in decision-making processes.

Gender is also a factor when considering broader social categories such as race and class. The South Africa of the apartheid era provides a prime example of race being used to determine who gains access to resources. Poor and marginalised black communities along the coast were deemed illegal harvesters by the government and were denied access to resources. However, the post-apartheid government has sought to correct these ethnic and class imbalances by amending policies and laws to restore people's rights to access resources and by stopping discrimination against groups based on race, ethnicity and class. The Constitution of South Africa and the Policy for the Small-scale Fisheries Sector in South Africa are examples of legal instruments that promote and require gender and racial equality in all aspects of private and public life.

# Social cohesion and conflict

The OECD (2011) defines **social cohesion** as a cohesive society that works towards the well-being of all its members, fights exclusion and marginalisation, creates a sense of belonging, promotes trust, and offers its members the opportunity of upward mobility. Although the notion of social cohesion is contested, it is understood to be a crucial component of any society and can be described as a bond that brings society together in order to promote a sense of community and societal well-being, and that leads to a sense of shared values, trust and harmony amongst its citizens. Ritzen et al (2000:6) also define social cohesion as "a state of affairs in which a group of people (delineated by a geographical region …) demonstrate an aptitude for collaboration that produces a climate for change". Although the definition of social cohesion varies across disciplines, there are common elements that feature in most definitions of this notion including concerns about social inclusion and sense of belonging, social capital and social mobility. Other constituent elements that are of relevance to understanding this notion are shared values and identity, participation, recognition and legitimacy. Gathering information on social cohesion relies mainly on qualitative methods such as interviews with community members, focus group meetings and oral histories. Some countries have developed suitable metrics to "measure" social cohesion through for examples including specific questions in surveys that assess aspects of people's sense of social inclusion and civic engagement.

In contrast, **conflict** is defined as a dynamic process that revolves around disagreements or confrontations between groups of categories of people and usually involves negative attitudes. In certain cases, confrontations may lead to coercive or violent behaviours between conflicting groups. Conflict usually results from a lack of social cohesion, social exclusion, inequalities and a lack of legitimacy. In rural areas, for instance, where access to natural resources for livelihoods is highly contested among resources users, managers and other groups, conflict is usually inevitable, especially where certain groups are marginalised in decision-making processes. For example, poor fishing communities around the world are often marginalised by socially unjust laws and practices, as they often lack the power or resources to improve their status in the sector. MPAs can serve as sources of social conflict, especially where they are seen as a threat to food security and livelihoods, and when MPA planning, implementation or management processes disrupt or undermine social cohesion. This is exacerbated when people are not involved in planning and decision-making processes that affect their community, their livelihoods and environment.

On the other hand, if MPAs are established, planned and managed in a manner that is inclusive and responds to the needs, goals and aspirations of local communities, they may serve as a source of social cohesion between and among communities and managers. Moreover, social cohesion can facilitate and promote resource sustainability and equitable sharing of benefits made possible by MPAs. Conflict, however, is likely to undermine resource sustainability and promote the exploitation of resources in the interests of a few and not for the benefit of the wider communities and the environment.

# Attitudes, perceptions, beliefs, values

The success or failure of an MPA rests largely on the attitudes and perceptions of fishers towards them, and these also determine the willingness of people to comply with the regulations set by MPA managers. Thus research on fishers' **attitudes, perceptions, beliefs and values** is significant as it facilitates understanding of the key factors that influence the decisions, choices and preferences of fishers with regard to MPAs (Pita et al, 2011). Understanding the characteristics of fishing communities, together with their attitudes, perceptions and behaviours in relation to MPAs, is important for managers because it determines the effectiveness of MPAs as fisheries management tools.

The various factors that influence the attitudes and perceptions of fishers towards MPAs usually include their perceptions of benefits, wealth, resource enhancement and empowerment. For instance, while many scientists believe that the establishment of no-take MPAs plays a significant role in restoring marine ecosystems, research has shown that fishers are more likely to be receptive to an MPA if they stand to benefit from its existence. Hence if fishers believe that an MPA (for instance, a no-take MPA) threatens their livelihood or the benefits they gain from the resources, they are less likely to accept an MPA, and less likely to comply with the regulations.

Just as MPAs vary in size and geographical location, they also vary in social and ecological contexts. Fishers from different locations and backgrounds are likely to harbour divergent attitudes and perceptions towards MPAs. Hence there is no "one size fits all" approach to the management of MPAs, as different MPAs may represent different meanings, struggles or benefits to different communities. It is crucial for MPA managers to consider this.

Research from different parts of the world, ranging from Kenya to England, has shown, however, that despite different contexts of MPAs, there are also common trends in the attitudes and perceptions of fishers with regard to MPAs. For instance, Pita et al. (2011) reveal that the views of fishers from different countries about MPA acceptance are similar. MPAs allocated for fisheries management are perceived more favourably by fishing communities than MPAs allocated solely for conservation purposes, including no-take MPAs, irrespective of geographic location (McClanahan et al, 2005; Suman et al, 1999; Himes, 2003). What this means is that the issue of the attitudes, perceptions, behaviours and values attached to MPAs by different groups is intricate and dynamic, and thus requires deep enquiry, rather than assumptions, on the part of MPA managers.

# Goals

- ❖ **Goals** are broad statements of what the MPA is ultimately trying to achieve.
- ❖ Goals of an MPA vary and may include:
- ❖ The protection and conservation of particular species, habitats and often whole ecosystems
- ❖ The protection and promotion of biodiversity
- ❖ The management of fisheries resources in a sustainable way
- ❖ The prevention of conflict between resource users
- ❖ The recognition of places of important ecological, cultural and spiritual value
- ❖ The promotion of tourism

In many protected areas, an MPA may be established to meet two or more of these goals. However, the goals underlying the establishment of an MPA are often not clearly stated, and the various stakeholders involved have different perceptions and understandings of why it has been established. Where MPAs are proclaimed without clearly stated goals, supported by an understanding of why those particular goals have been prioritised, there are several dangers: the perceived goals may not be regarded as legitimate by stakeholders, management will not be able to develop clear objectives linked to these goals, management tools will not necessarily be tailored to address the specific attributes of the system requiring protection and it will be difficult to assess the impact of the MPA in a robust manner.

The goals of an MPA may change with time, as information about the attributes needing protection change or the interests of stakeholders shift. Furthermore, local communities and stakeholders may interpret goals in different ways and, similarly, goals set by conservation agencies may have diverse meanings for different groups of users and stakeholders. These different interpretations will then shape how people interact with the MPA. It is critical that the values that inform goals be understood and shared among the different stakeholder groups and that goal formation be conducted in an accessible, participatory and transparent way. Inevitably the goals ultimately identified for an area should be the outcome of a consultation and negotiation processes, but they may be influenced by the interests of powerful stakeholders engaged in the process. Thus consideration of the power dynamics in the group and finding ways of ensuring that all voices are heard are important aspects of goal formation (see factsheets on Politics and on Representation and Legitimacy).

Once goals have been negotiated and agreed upon, the more specific objectives relevant to each goal will need to be identified. While technical experts may play an important role in the identification of draft objectives, it is critical that these objectives also be discussed and refined with local communities and other stakeholders. They need to be framed in language that is accessible to local communities and other relevant stakeholders. Regular monitoring and evaluation is required to assess whether the stated goals and objectives are still relevant and, if so, whether they are reflected in the actual actions that management undertakes. If not, goals may need to be revised or management actions reconsidered.

# Social vulnerabilities

Small-scale fishing communities, particularly those in developing countries, often reside in rural, poor and marginalised areas, where there are limited livelihood options, exacerbated by poor levels of education, employment opportunities, skills development and infrastructure availability. People living in these fishing communities are vulnerable to a range of social problems which are usually a consequence of the marginalisation and insecurities inherent to the context in which they live. They are thus exposed not only to the risks posed by normal environmental events that might affect their fisheries-dependent livelihoods, but also to the cumulative and compounding effect of the social challenges. **Vulnerability** refers to exposure to risk and the capacity of communities to anticipate, cope with and recover from it (Chambers and Conway, 1991).

MPAs are often located in or adjacent to small-scale fishing communities. In such contexts, they may add to the layer of social complexity if they come to threaten the livelihoods of people in the communities. Often there is a mismatch between the MPA goals identified and implemented by the conservation authorities and the livelihood needs of local fishing communities. This is particularly so in the case of MPAs that are declared as "no-take" reserves, with no option for sustainable use. Many MPAs have been established solely for ecological objectives without encompassing the human dimensions that can inform how an MPA may contribute to the improvement of the well-being of the surrounding communities and to the alleviation of social problems faced by the communities.

International fisheries management and marine and coastal conservation instruments provide guidance to MPA managers, fisheries management and conservation authorities on the standards required with regard to the social and economic impacts of MPAs. The Convention on Biodiversity Programme of Work on Protected Areas, Element 2, urges states to ensure that communities share equitably in the benefits and costs of MPAs. The FAO Code of Conduct for Responsible Fisheries urges states to consider the livelihoods of local communities when developing management interventions.

An integrated approach to MPA design, planning and management is required in order to ensure that MPAs do not become conservation islands in the midst of communities struggling with social problems. Governance actors responsible for implementing and managing MPAs should seek to join forces with local social institutions such as NGOs, local municipalities and customary institutions in finding ways to ensure that MPAs do not exacerbate social ills but instead contribute to solutions to social problems confronting local communities. Consideration of how the vulnerabilities of such communities can be addressed therefore needs to inform the setting of MPA goals and objectives, thus contributing to the elimination of poverty and the equitable distribution of benefits from the MPA.

# ECONOMICS
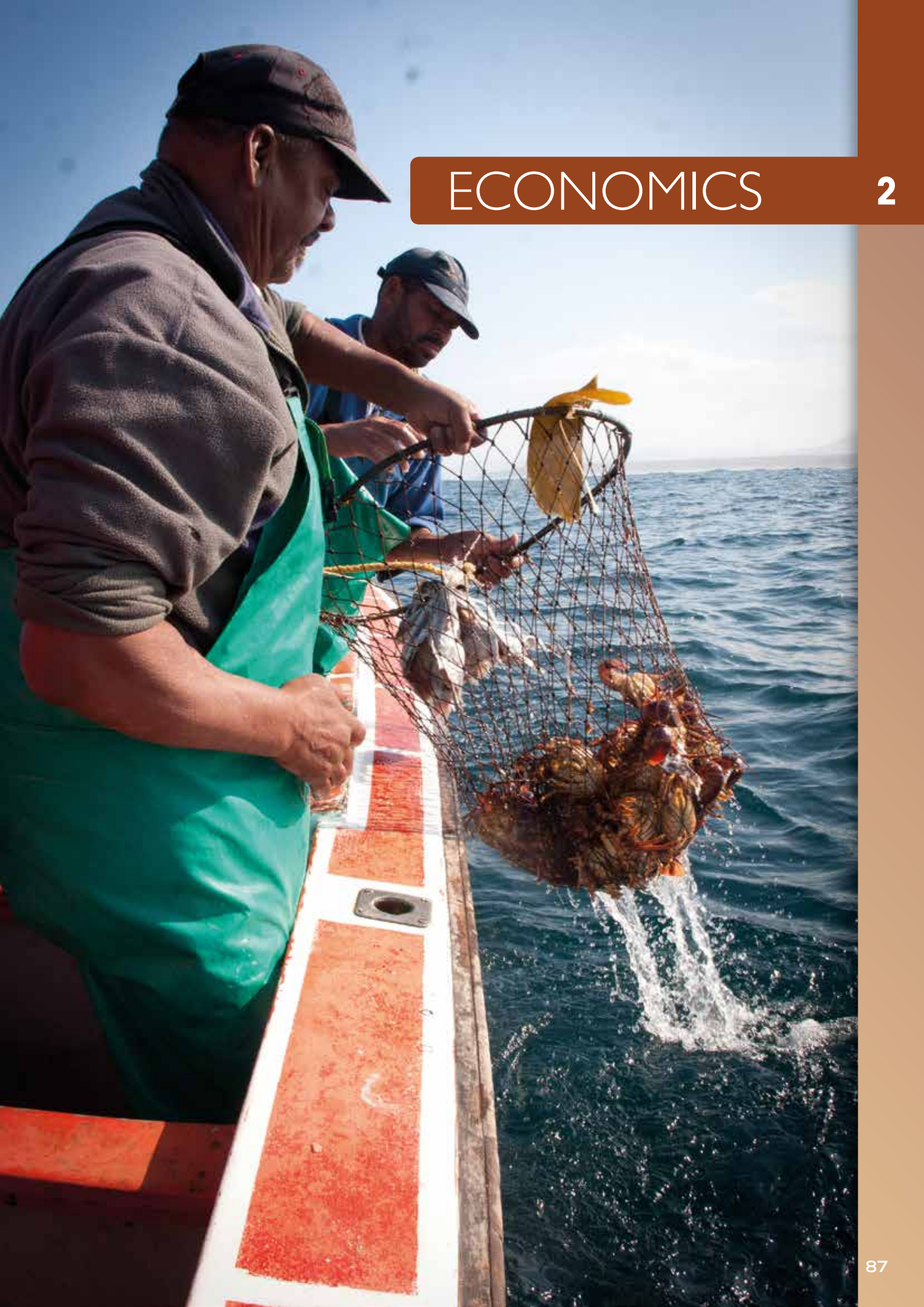
# Poverty

**Poverty** refers to the lack of opportunities, empowerment and security experienced by households or individuals.

Poverty is a complex, dynamic and multi-dimensional concept that is often perceived differently by different stakeholders.

The Organisation for Economic Cooperation and Development defines poverty in five core dimensions:

1. *Economic capabilities:* the ability to earn an income, acquire assets and consume goods and services, which determines food security, social status, material well-being and access to physical and financial resources
2. *Human capabilities:* the level of health, education, nutrition and access to shelter, clean water and sanitation
3. *Political capabilities:* access to human rights, freedom of speech and participation in public policies, plans or programmes
4. *Socio-cultural capabilities:* the ability to participate as a member of a community and gain social status, dignity and other cultural concepts valued by the community
5. *Protective capabilities:* the resilience of an individual or community to withstand economic or external shocks.

By measuring poverty one determines whether households or individuals have the abilities or resources to meet their needs.

The **poverty line** refers to the threshold below which a given household or individual will be classified as poor.

There are various measures of poverty, which is differently classified in different countries, for example:

❖ *Headcount index:* the number or share of individuals or households whose income or consumption is below the poverty line
❖ *Poverty gap:* the mean aggregate income or consumption shortfall relative to the poverty line or the extent to which the individual or households below the poverty line deviate from the poverty line
❖ *Squared poverty gap:* the measurement of the distance of the poor from the poverty line and of the inequality among the poor

The need for fisheries management to promote poverty alleviation is highlighted in the FAO Code of Conduct for Responsible Fisheries:

> Fisheries management should promote the maintenance of the quality, diversity and availability of fisheries resources in sufficient quantities for present and future generations in the context of food security, poverty alleviation and sustainable development.

It is essential to understand the poverty that is found in the vicinity of an existing or planned MPA, as that understanding will help in the design of management measures and of the flow of benefits to the affected stakeholders. When reviewing the effectiveness and impact of the MPA, one can use this information on poverty to assess whether or not the situation has improved.
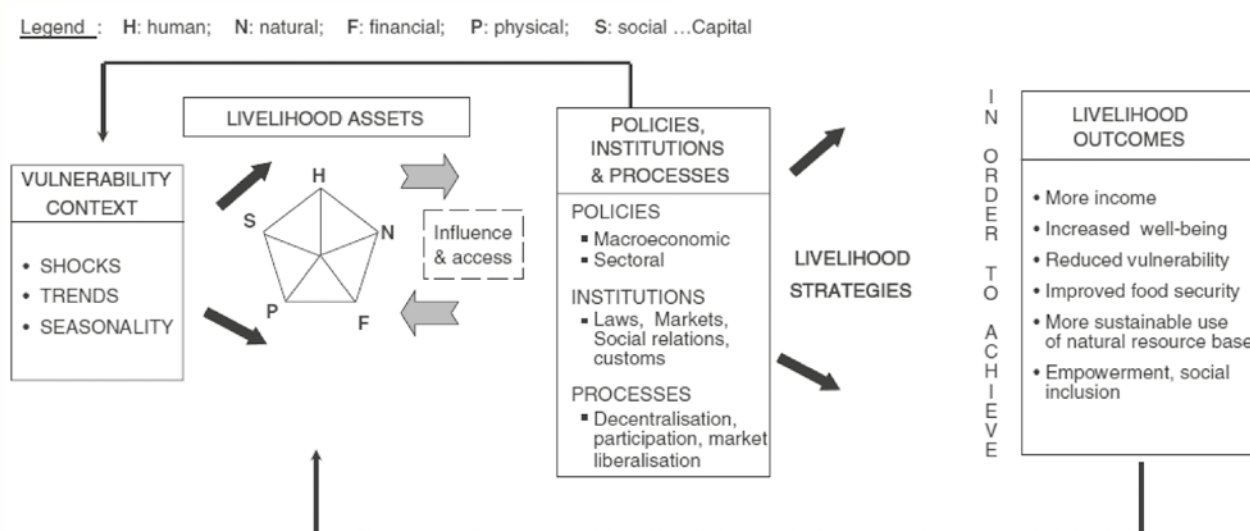
# Sustainable livelihoods

A **livelihood** comprises the capabilities, assets and activities required for a means of living. A livelihood is therefore sustainable when it can cope with and recover from stress and shocks, maintain or enhance its capabilities and assets, provide sustainable livelihood opportunities for the next generation, and contribute net benefits to other livelihoods at the local and global level and in the short and long term (Chambers and Conway, 1992). Why is it important to understand livelihoods in relation to MPAs?

The Sustainable Livelihoods Framework and Approach is a conceptual attempt to go beyond the conventional definitions and approaches to poverty eradication and development practice (Krantz, 2001; Allison and Horemans, 2006). It aims to capture, and provide a means of understanding, the vital causes and dimensions of poverty and people's livelihoods as well as the typical relationships between these factors (Chambers 1988; Chambers and Conway, 1992; DFID, 1999).

The Sustainable Livelihoods approach has been prominent in recent development programmes that aim to reduce poverty and vulnerability in coastal communities engaged in small-scale fishing, fish processing and fish trading (Allison and Ellis, 2001; Neiland and Bene, 2004). In this regard, MPAs are conceived as tools that can help to improve and sustain the livelihoods of those dependent on marine living resources. The two key components of this approach are: a *framework* that helps in understanding the complexities of poverty and a set of *principles* to guide action to address and overcome poverty.



**FIGURE 1:** The rural livelihoods framework (extracted from Allison and Horemans, 2006)

These are the guiding principles of the Sustainable Livelihoods approach:

- *Be people-centred* by analysing people's livelihoods and how they change over time, with the people themselves actively participating throughout the project cycle.
- *Be holistic* by acknowledging that people adopt many strategies to secure their livelihoods, and that many actors are involved; for example the private sector, ministries, community-based organisations and international organisations.
- *Be dynamic* by understanding the dynamic nature of livelihoods and what influences them.
- *Build on strengths* by building on people›s perceived strengths and opportunities, and thus supporting existing livelihood strategies, rather than merely focusing on their problems and needs.
- *Promote micro-macro links* by examining the influence of policies and institutions on livelihood options, which will highlight the need for policies to be informed by insights from the local level and by the priorities of the poor.
- *Encourage broad partnerships* by relying on broad partnerships drawing on both the public and private sectors.
- *Aim for sustainability*, which is important if poverty reduction is to be lasting.

# Employment

The marine and coastal environment provides a wealth of employment and economic opportunities. Economic benefits derived from these areas might be direct in the form of employment, such as a fisher working on a commercial fishing vessel, or indirect, such as a woman employed at a fish processing plant. It might also derive from value adding further down the value chain, such as a young woman making shell necklaces and selling these to a local tourist establishment that in turn sells them to their guests.

MPAs can have both positive and negative impacts on employment and economic opportunities, at varying temporal and spatial scales. The safeguarding of key ecosystem services, for instance through measures to protect key breeding habitats, key species and spawning grounds, plus benefits from the spill-over effects of these measures, can enhance economic opportunities for communities. In addition to these benefits, MPAs can lead to a wider diversification of livelihood and employment opportunities through increased options such as agriculture, aquaculture, mariculture and eco-tourism. Related benefits generated through the implementation of protected areas include:

❖ Skills training
❖ Environmental monitoring
❖ Economic growth
❖ Improved human health

However, despite these potential economic benefits, MPAs can and often do also have a negative impact on the employment and economic opportunities of certain sectors of the community. The establishment of an MPA may, for instance, result in reduced access to fisheries or the closure of a fishing site. For example, if it is not possible for the fleet to relocate its effort without suffering negative consequences, the cost of these consequences might ultimately be carried by the local employees of the fishing fleet. There might also be hidden costs for vulnerable sectors of the local population, such as women, who might depend on access to a portion of the value of the catch either for food or as a supplementary livelihood resource.

The human rights to work to provide for oneself and one's dependants, to favourable conditions of work and to protection against unemployment are now universally recognised.

Although effective conservation, management and development of living marine resources are vital to economic well-being for both present and future generations, the challenge of securing these human rights and of ensuring that management interventions in the marine environment expand economic opportunities is overwhelming in the current global financial climate. At best, most management interventions aim to minimise the impact on employment and, where there is impact, to explore supplementary or alternative options for income. In some countries, for example Australia, the government may compensate fishers financially for loss of employment or income due to the establishment of a no-take area. Financial compensation would also need to be explored in the context of potential social and cultural loss.

The Food and Agriculture Organization (FAO) Code of Conduct for Responsible Fisheries highlights the importance of marine resources and areas for food security, employment and economic benefits. It is critical that any planning and management intervention include an assessment of the potential impact of the MPA on different users' employment activities and explore the costs and benefits of different management strategies so that the least restrictive options can be considered.

# Income and assets

Income levels and assets are classified as indicators of wealth and social status for individuals or communities.

**Household livelihoods** and **income** are terms referring to how users combine resources and assets to meet their needs and make a living for themselves and their families.

**Income** is the amount, benefit or payment earned, derived or received periodically through employment or assets.

**Assets** are objects of value that an entity owns, benefits from or has use of in generating income.

An asset can be tangible or intangible and is affected by external drivers, such as institutions, policies, legislation and markets.

Assets and capabilities are commonly divided into six dimensions:
1. *Human:* education, formal and informal skills, level of health and cultural values
2. *Natural:* natural resources and the surrounding environment
3. *Physical:* shelter, infrastructure, buildings, water and electricity, and productive assets, such as livestock, fishing gear and other processing equipment
4. *Financial:* cash income and remittances, credit and saving in kind
5. *Social:* formal and informal institutions or markets, associations, extended family and local mutual support mechanisms
6. *Political or legal:* policy, legislation, ownership rights, human rights and fair and equitable access to resources

Marine and coastal areas are significant in income generation and the achievement of sustainability. The implementation of protected areas can have a positive or negative impact on income and assets. Effectively implemented and managed MPAs can bring about improvements in the livelihoods, income and overall wealth of resource users, which may lead to an overall increase in the quality of human health.

The FAO Code of Conduct for Responsible Fisheries emphasises the importance of small-scale fisheries in contributing to employment, income and food security, thus highlighting the state's role in appropriately protecting the rights of fishers and resource users, in particular those engaging in subsistence, small-scale and artisanal fisheries, to secure a livelihood and gain preferential access to relevant traditional fishing grounds and resources. It also underlines the need for states to recognise alternative livelihood strategies, such as aquaculture, as a means to diversify income and diet, while minimising the adverse impacts on resources, the environment and local communities.

A thorough understanding of local income and asset flows and structures, in particular those that are or could be directly linked to the MPA, is necessary in planning for MPA management measures. It is also useful to gather this type of information when monitoring and evaluating the effectiveness of the MPA.

# Markets and trade

**Markets** are often referred to as the interaction of producers and consumers.

In fisheries, **market and trade structures** are attributes of fisheries or coastal areas that include the harvesting, handling, processing and distribution activities of fish and other marine products. There are both indirect and direct benefits associated with each stage of the value chain, including the financial or economic values of fish and products, existence values and cultural or traditional values that are passed on from generation to generation.

Markets and trading activities differ from species to species. The properties of specific markets depend on several attributes, such as the price of the product, demand and supply, the price and availability of inputs and the prices of complementary and substitute goods.

The market and trading activities of marine and coastal resources affect the livelihoods and incomes of communities and other resource users. It is therefore important for resource users to understand the nature of these markets in order to increase their access to assets and capital to expand livelihood opportunities.

**Market value** refers to the productivity, earning or income from resources. This includes the opportunity costs and market value of marine or coastal goods or services.

**Non-market value** refers to the economic value of non-market activities, including direct and indirect uses of resources or marine or coastal areas.

Examples of non-market values:

* *Travel costs:* the price of accessing goods equal to opportunity cost of time and travel
* *Hedonic price:* environmental quality as reflected in the market prices, such as the price of housing, wage differentials
* *Replacement costs:* the cost associated with replacing resources to achieve the original state

**Non-use value** refers to the value of marine and coastal resources that are not associated with any particular use.

Examples of non-value uses:

* *Contingent value: non*-consumptive values (existence/option), which cannot be estimated by observed consumption
* *Aesthetic value:* the value of an object as a "work of art"
* *Existence value:* the value of knowing the resource exists in a certain condition
* *Option value:* the option of being able to use the resource in the future
* *Bequest value:* the value of ensuring the resource will be available for future generations

These values can be used in the following ways:

* To determine the trade-off between conservation, management and development objectives
* To calculate the value of the resource to stakeholders or resource users
* To determine the impact of an MPA on stakeholders

The FAO Code of Conduct for Responsible Fisheries recommends that states should ensure that their policies, programmes and practices related to trade in fish and fishery products do not result in obstacles to this trade, environmental degradation or negative social, including nutritional, impacts.

# Food security

**Food security** refers to the availability of food and access to it. A household is considered food-secure when its occupants do not live in hunger or fear of starvation.

The World Health Organization defines three facets of food security: food availability, food access and food use. **Food availability** is about having sufficient quantities of food available consistently. **Food access** means having sufficient resources, economic and physical, to obtain appropriate foods for a nutritious diet. **Food use** refers to appropriate use, based on knowledge of basic nutrition and care, as well as adequate water and sanitation. The FAO adds a fourth facet: the stability of the first three dimensions of food security over time.

The World Food Summit of 1996 defined food security as existing "when all people at all times have access to sufficient, safe, nutritious food to maintain a healthy and active life". Commonly, the concept of food security is defined as including both physical and economic access to food that meets people's dietary needs as well as their food preferences. In many countries, health problems related to dietary excess are an increasing threat. In fact, malnutrition and food-borne diarrhoea have become a double burden. Issues such as whether households get enough food, how it is distributed in the household and whether that food fulfils the nutritional needs of all members of the household show that food security is clearly linked to health.

Food security is thus a complex sustainable development issue, linked to health through malnutrition, but also to sustainable economic development, environment and trade.

At the core of food security is access to healthy food and optimal nutrition for all. Food access is closely linked to food supply, so food security is dependent on a healthy and sustainable food system. The food system includes the production, processing, distribution, marketing, acquisition and consumption of food. Food security therefore also means that the people who produce our food are able to earn a decent, living wage by growing, catching, producing, processing, transporting, retailing and serving food.

Access to sufficient food is the right of all South Africans, and yet many South Africans are vulnerable to food insecurity, leading to nutritional problems including stunting, low body weight and micronutrient malnutrition. Chronically malnourished children suffer from decreased physical activity and lowered immunity. Improving access to nutritious food is a priority for addressing food insecurity.

Fisheries and aquaculture make an important contribution to the animal protein supplies of many communities in both the industrialised and the developing world. It is, however, in low-income food-deficit countries that some communities are dependent on fish, not only for animal protein, but also as a source of micro-nutrients, minerals and essential fatty acids. Although, theoretically, these proteins and nutrients could come from other sources, in isolated fisheries-dependent communities alternatives are likely to be more expensive, if they are available at all.

The FAO Code of Conduct for Responsible Fisheries encourages states to promote the contribution of fisheries to food security and food quality, giving priority to the nutritional needs of local communities (Article 2.6), and to recognise the important contributions of artisanal and small-scale fisheries to employment, income and food security. States should therefore appropriately protect the rights of fishers and fishworkers, particularly those engaged in subsistence, small-scale and artisanal fisheries, to a secure a just livelihood, as well as ensure preferential access, where appropriate, to traditional fishing grounds and resources in the waters under their national jurisdiction (Article 6.18). With regard to MPAs, this means that the creation of MPAs may not compromise local food security, either in the short or the term.

# Ecosystem goods and services

An ecosystem is defined as "a dynamic complex of plant, animal, and microorganism communities and the nonliving environment interacting as a functional unit" (Millennium Ecosystem Assessment, 2003, 2005).

**Ecosystem goods and services** are benefits people derive from functioning ecosystems and the ecological characteristics, functions, or processes that directly or indirectly contribute to human well-being (Millennium Ecosystem Assessment, 2005; Costanza et al., 2011).

The value of ecosystem goods and services is defined by their contribution of benefits to human well-being.

Marine and coastal ecosystems are no exception and provide a wide variety of ecosystem services. These can be classified as follows:

**Provisioning services**: ecosystem products people obtain from the ecosystem

❖ e.g. seafood, water, medicine, and construction material

**Regulating services**: the benefits people obtain from the regulation of ecosystem processes

❖ e.g. climate regulation, air quality regulation, water purification and erosion regulation

**Cultural services**: the non-material benefits society obtains from ecosystems

❖ e.g. spiritual experiences, inspiration, cognitive development and education, and recreation

**Supporting services**: the ecosystem processes or functions that support the provision of other services that society consequently benefits from

❖ e.g. refugia such as nurseries, photosynthesis and sand formation

International consensus recognises compelling evidence that a rich, natural biodiversity underpins ecosystem processes, resilience and thus the sustainability of ecosystem services (Millennium Ecosystem Assessment, 2005).

The Convention on Biodiversity Conference of Parties has recognised the importance of ecosystem goods and services, integrating them into the Strategic Plan for Biodiversity (2011-2020), and the Aichi Biodiversity Targets. Most notably, South Africa, as a party to the convention, has committed to ensuring that:

❖ By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes (Target 11)
❖ By 2020, ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable (Target 14)

Marine protected areas (MPAs) can include a range of benefits such as provisioning services from fisheries, marine plants and natural resources, regulatory services including absorption of $CO_2$ and wastes, and cultural services such as recreation, sense of place, and education.

# CULTURAL

# Customary fishing practices and rights

**Customary fishing practices** are the activities, norms, customs and cultural traditions that shape a group's or community's interaction with its marine environment over time. They are the mechanisms by which fishing communities "define, delimit, 'own' and defend" their fishing rights in a culturally and historically context-specific way (Ruddle and Akimichi, 1984: 1 in Aswani, 2005:289).

These mechanisms vary from context to context but may include rules or agreements pertaining to the following:

❖ Who may fish in a given area
❖ When they may fish
❖ How they may fish and what gear they may use
❖ How the catch should be shared and utilised
❖ Specific rituals pertaining to the use of the sea and marine resources
❖ Transmission of knowledge
❖ Inheritance of the rights to use the resources

Customary fishing norms and rules are characteristically embedded in the broader social relations and the system of customary law operating within a customary community that regulate access to and use of a range of natural resources.

**Systems of customary rights** may include all or some of the following features:

1. A local system of authority able to sanction fishing practices, which may be located at the level of the household, at clan level or at the level of the larger group or community, and may even be loosely constituted among users themselves

2. Exclusive use rights, in which certain designated groups have exclusive rights over resources and are able to exclude others either formally or informally

3. Rights of inclusiveness or membership, which may be defined through various socio-cultural rules based on birth (primary rights), marriage and residence (secondary rights), and the direct transfer of rights by traditional authorities (usufruct rights)

4. A system of transferring knowledge from one generation to another, thereby continuing membership of the group

The strength of a customary system to manage a fishery effectively and sustainably and the extent to which fishers can exercise their territorial rights to exclude or punish those who break the customary rules vary from place to place. This often depends upon regional settlement patterns, the strength of traditional self-governance, population pressure, fishery commercialisation, and a country's legal recognition of customary tenure, among other things (Aswani, 2005). Customary systems often use "tradition" to legitimise their claims to resources; but in fact they are not static, as they are continuously changing and evolving in relation to internal and external pressures. They are diverse and dynamic, and in most instances they have emerged from "the coalescence of traditional and foreign practices" (Aswani, 2005).

Several international human rights and fisheries instruments articulate the obligation of states to recognise, protect and promote the customary rights of fishing communities. Article 10(c) of the Convention on Biological Diversity states that parties shall, as far as possible and as appropriate:

> Protect and encourage customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use requirements.

The Food and Agriculture Organization (FAO) Code of Conduct for Responsible Fisheries encourages states to give due recognition to the traditional practices, needs and interests of indigenous people and local fishing communities that are highly dependent on fishery resources for their livelihood, while deciding on the use, conservation and management of fisheries resources.

The South African Constitution, in section 211, recognises customary systems of law in so far as these are compatible with the Bill of Rights. In line with this constitutional recognition, the Policy for the Small-scale Fisheries Sector in South Africa recognises rights arising through customary law, common law or legislation.

# Traditional and local knowledge

Several different terms are used to refer to traditional ecological knowledge. "Local knowledge" is local ecological knowledge held by local users and communities that is not necessarily time bound. "Indigenous knowledge" specifically refers to the knowledges held by indigenous peoples.

> Traditional ecological knowledge is cumulative body of knowledge, practice and belief evolving by adaptive processes and handed down through generations by cultural transmission, about the relationship of living beings (including humans) with one another and their environment. (Berkes, 1999:8).

South Africa developed the Indigenous Knowledge Systems Policy in 2004, and a draft Protection of Traditional Knowledge Bill is under discussion. The Indigenous Knowledge Systems Policy is an enabling framework to stimulate and strengthen the contribution of indigenous knowledge to social and economic development in South Africa.

The FAO Code of Conduct for Responsible Fisheries (FAO, CCRF, 1995) recommends as follows:

> States should investigate and document traditional fisheries knowledge and technologies, in particular those applied to small-scale fisheries, in order to assess their application to sustainable fisheries conservation, management and development. (CCRF Article 12 Fisheries Research, para.12.12).

> Conservation and management decisions for fisheries should be based on the best scientific evidence available, also taking into account traditional knowledge of the resources and their habitat, as well as relevant environmental, economic and social factors. (CCRF Article 6 General Principles, para. 6.4).

The CBD Working Group on Article 8(j) has developed guidance for parties and governments seeking to develop systems to protect traditional knowledge, which was endorsed by the tenth CBD Conference of the Parties in Nagoya, Japan. The guidelines encourage parties to recognise rights linked to all components of the bio-cultural heritage associated with traditional knowledge, including rights over the biodiversity, customary laws, cultural and spiritual values, and lands and waters traditionally occupied or used by indigenous and local communities (UNEP/CBD/WG8J/6/5:1).

While the integration of scientific and traditional knowledge is not easy, as they are often located within very different knowledge systems and ways of viewing the world, many organisations have now developed innovative participatory methodologies that facilitate the "co-production of knowledge". Participatory mapping processes and community-based monitoring systems can provide valuable opportunities for scientists and local resource users to document and share their respective knowledge about different aspects of the ecosystem and begin to develop an enriched, shared language with which to develop a collaborative approach to adaptive management that can test the assumptions behind the different types of knowledges.

# Sense of place

In the past three decades conservation planners and others involved in development projects have come to understand that people's attachment to an area, or sense of place, is a key human dimension shaping how people interact with their environment individually and collectively. **Sense of place** has been recognised as one of the key human dimensions that need to be considered in conservation planning.

"Sense of place" is defined as the "social and historical processes by which place meanings are constructed, negotiated and politically contested" (Williams and Stuart, 1998:20). It is a dynamic, interactive concept that is "a combination of what people bring to the place (their past experiences, culturally based worldviews, attitudes, beliefs, preferences, thoughts and feelings) and what the place brings to the person (affordances of certain behavioural and experiential opportunities)" (Manzo, 2008:135).

The process by which a particular stretch of coastline or marine space gains a sense of place is a social process, influenced by diverse social, cultural and historical processes, in interaction with the biology and ecological features of that place. Although sense of place is often regarded as an intangible value and hence difficult to quantify, the importance of considering it is recognised in South Africa. For example, the iSimangaliso World Heritage Authority notes that iSimangaliso is recognised for its "sense of place". The St Lucia mining environmental impact assessment investigation into proposed mining on the Eastern Shores and subsequent recommendations of the review panel appointed by the government said that the area "has a unique and special 'sense of place'. This sense that the area is precious was expressed by a diverse range of groups, from learners to conservationists to the urban middle class, and to the people who were removed from the land. In the evidence before the panel, the special natural qualities of iSimangaliso wilderness, and its healing and calming effect on people, were mentioned. This is also perceived and experienced as a spiritual relationship based on the significant social and mystical values emanating from many years of ritual and religious activities that took place on the land" (iSimangaliso IMP, 2011–2016:54).

An understanding of the sense of place that an MPA holds for different stakeholder groups is critical for the management of that MPA and can be used to strengthen stakeholder commitment to the goals of the MPA. Such insight is best gathered over time through direct contact with stakeholders and by gathering feedback and stories pertaining to the interactions of visitors and stakeholders to the MPA. Specific assessments, using both qualitative and quantitative methods, can be used to gather data about this human dimension. While not legislated specifically, sense of place is closely tied to a group's culture. The right to culture in the Constitution of South Africa (sections 30 and 31) and the associated duty to protect and promote cultural heritage create an obligation for planners and policy makers to take this human dimension into consideration in any planning or management intervention.

# Way of life

Whether fishing for a commercial livelihood or to put food on the table as a subsistence fisher, or indulging in recreational fishing as a pastime, fishers and members of fishing communities often refer to fishing as a "**way of life**" and use this phrase when motivating their need to continue with these practices in the face of changes that might disrupt their "way of life".

This phrase captures a range of social, cultural and economic values, depending on the context of the fishing community or person concerned. For many fishing communities, fishing has evolved over centuries, resulting in the local community having a finely tuned knowledge of the local environment and associating their lives closely with this environment. In many instances, the nature of the fishing technology, coupled with the physical risks and demanding nature of the activity, necessitates the development of close communal ties, encouraging the establishment of networks and a shared set of values surrounding the meaning of the activity for that community. In many such communities, the meaning of fishing extends beyond an economic value and is entwined in the customs and culture of the community. The value and significance attached to these activities are reflected in the social capital of the community, which is inextricably linked to their social relations and is the basis of their lives and their livelihoods.

The unique location of most fishing activities, in the transitional space between land and open sea, adds an almost mythical aspect to the meaning of this skill and activity for those for whom it has become a way of living. This is even more so among those for whom fishing is a risky activity that demands the development of exceptional courage and skill. The skill and local traditional knowledge that accumulate over time, and are passed from one generation of fishers to another, add to the commonly held feeling that this is indeed a way of life that cannot easily be erased or exchanged for a different occupation or pastime. In addition, for many coastal communities, interaction with the marine environment creates an opportunity to commune with God or, as in the case of many African communities, with ancestral spirits that are believed to reside in the sea and rivers. If it is part of their spiritual practice, it may be an integral part of their culture.

Research conducted among indigenous fishing communities following the Exxon-Valdez oil spill in Alaska on how to value "culture loss" and "sense of place" highlights the complexity of the meanings that different cultures attach to these issues. The intangible values attached to fishing as an activity, and to aquatic water bodies as sense of place, make it extremely difficult to measure the impact on an individual, group or community of a proposed plan or change in access. Methods for the economic valuation of MPAs often fail to capture the range of values and significance attached to a particular marine environment or activity such as fishing and harvesting, while anthropological accounts of such meanings fail to provide useful policy direction for specific interventions such as compensation (Snyder et al, 2003).

It is imperative that the management team gain an understanding of the different values attached by a particular group or community to that way of life, so that the potential impact on the groups can be assessed from a social, economic and cultural perspective. Alternative measures to mitigate impacts or appropriate compensation can then be considered.

# Culture and cultural heritage

**Culture** is "the dynamic totality of distinctive spiritual, material, intellectual and emotional features which characterise a society or social group" (South African White Paper on Arts, Culture and Heritage).

This definition of culture, which underpins the protection of culture set out in the Constitution of South Africa (sections 30 and 31), draws on the approach to culture in international law, which includes "a people's entire store of knowledge and artefacts, especially the languages, systems of belief, and laws, that give social groups their unique characters" (Bennett, 1995:23). In line with this broad definition, which includes a people's or group's traditional knowledge systems, it is now internationally recognised that "the protection, promotion and maintenance of cultural diversity are an essential requirement for sustainable development for the benefit of present and future generations" (Cultural Diversity Convention, Article 12(6)).

This understanding that the protection of cultural diversity is coupled with the protection and promotion of sustainable development has prompted a range of international legal and policy initiatives to ensure that cultural diversity is protected in the interests of protecting biological diversity. Most notable in this regard is the Convention on Biological Diversity (CBD), which has recognised the importance of cultural diversity and traditional knowledge as integral to the protection of biodiversity. The CBD's Article 8(j) on Traditional Knowledge, Innovations and Practices calls on Parties to:

> respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge innovations and practices.

The CBD Conference of Parties has urged parties to take cultural, social and ecological issues into consideration when undertaking any developments that might have an impact on the lands of indigenous and local communities, and thereby on their traditional knowledge.

The South African National Heritage Resources Act of 1999 makes provision for the protection of sites and places of significance to the cultural heritage of a people or the country as a whole. In 2003 the South African Heritage Resources Agency launched a programme to identify and protect South Africa's maritime cultural heritage resources, and the inclusion of the Stilbaai fish traps in the Western Cape province is one of the key activities in this project. The traps were included in the declaration of the Stilbaai Marine Protected Area with the aim of protecting this example of indigenous technology. In addition to these places or sites of cultural heritage, the National Heritage Resources Act recognises the importance of living cultural heritage. The Kosi Bay traditional trap fishery in northern KwaZulu-Natal is an example of living cultural heritage recognised by the conservation authorities as an integral component of any system protecting and promoting biodiversity.

# History

**Historical research** enables one to trace a narrative of the past and to understand the ways in which a community or place has changed over time. Enquiry into the history of a place allows a deeper understanding of the social, economic, cultural and political fabric of a community. Historical context often allows one to understand the historical forces that influence current institutions in a community.

## History and MPAs

Research shows that where MPAs have been implemented without adequate understanding of the history of marine use in the area, or where local people's historical ties to the land and resources have not been taken into account, these conservation initiatives have yielded poor results in terms of achieving conservation ideals, and have also failed to build strong partnerships with the communities affected. Therefore, in order for MPA managers not to repeat the mistakes of the past, understanding the history of communities living adjacent to an MPA is vital in ensuring that conservation objectives are met while, at the same time, human rights are protected.

## Benefits of understanding history in MPA planning

Historical context will enable MPA managers to do the following:

1. Understand why, and how, people resist, negotiate or accept MPAs in their communities
2. Appreciate how people have used the land and resources in the MPA and adjacent area, and how this has changed over time
3. Understand which sites have historical significance to surrounding communities through, for example:
   - ❖ Spiritual, ancestral and cultural ties
   - ❖ Customary use of marine resources and land
   - ❖ Use of land for recreational purposes
   - ❖ Dependence on land for livelihoods
4. Understand the effect that conservation (both marine and terrestrial) has had on the community and how the relationship between the community and conservation authorities has changed over time.

*Historical research needs to be sensitive to social categories that influence society such as race, class and gender.*

**Research should rely on a multitude of sources** such as secondary literature on the area, archival documents, newspaper articles and other media sources, oral history (life history interviews with men and women of all ages), interviews with leaders in the community, and photographs and maps.

## Myths about history

- ❖ History should not be viewed as a monolithic single narrative demonstrating the "facts" and "truths" about the past, but rather needs to be understood as a series of multiple narratives that are selected and edited in order to form one story.
- ❖ The role of the researcher is to attempt to construct a historical narrative that illustrates, as far as possible, a balanced account of the past. However, the researcher needs to be aware of his/her own subjectivity in editing and selecting history.
- ❖ History is influenced by current questions and contexts and often runs the risk of being dominated by powerful voices and viewpoints. Researchers must be aware of "top-down" dominant narratives and must seek to include as many viewpoints as possible.

# Spiritual practices and sacred sites

The International Union for Conservation of Nature (IUCN) has defined "sacred natural sites" as "areas of land or water having special spiritual significance to peoples and communities" (IUCN, 2008 in Wild and McCleod, 2008:5). The IUCN notes further:

> For many peoples, sacred natural sites are areas where nature, connection to the greater universe, and collective or individual recollections come together in meaningful ways. Sacred natural sites can be the abode of deities, nature spirits and ancestors, or are associated with hermits, prophets, saints and visionary spiritual leaders. They can be feared or they can be benign. They can be areas for ceremony and contemplation, prayer and meditation. For people of no particular faith they often inspire awe and can induce a sense of well-being. They can also hold secular values for history, culture, relaxation and enjoyment. Sacred natural sites can be important places of reference for cultural identity: for an extended family, a clan, a tribe, a religious faith or entire nations that may root their identity in a specific place in nature. ( IUCN, 2008 in Wild and McCleod, 2008:5)

Since time immemorial, human beings have found spiritual and artistic inspiration and expression in nature, and some cultures express close spiritual connections to the land, waters and natural resources that they have traditionally occupied and used. In many countries, the land, coast and waters that have been designated as protected areas include sites that hold specific spiritual value and meaning for indigenous peoples and local communities. These sites are often an integral component of the living cultural heritage of such communities. This value attached to certain protected areas was recognised at the Fifth World Parks Congress held in Durban in 2003. The Durban Accord, a statement from the 3000 participants in the congress, described protected areas as "those places most inspirational and spiritual, most critical to the survival of species and ecosystems, most crucial in safeguarding food, air and water, most essential in stabilizing climate, most unique in cultural and natural heritage and therefore most deserving of humankind's special care" (IUCN, 2008: 6).

Over the past three decades, indigenous peoples and local communities have engaged in struggle to retain control over and protect their lands, waters and sacred sites. Their advocacy actions, coupled with a growing realisation among the conservation community that in many instances these sacred sites coincide with biodiversity areas that have been protected through centuries of careful stewardship, have prompted a range of international institutions to recognise the significance and value of sacred sites and to argue for their legal protection.

Internationally, sacred natural sites are protected in terms of a range of international laws that safeguard the right to culture and living heritage, and the rights of indigenous peoples. The obligation to respect and protect sacred natural sites in South Africa is also clearly established in law. The Constitution provides for the rights of people to practise their culture and the religion of their choice, while the National Heritage Resources Act of 1999 makes provision for a place or object to be protected if "it has cultural significance or other special value because of its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons".

# POLITICAL

# Equity

Issues of equity must be kept in mind throughout the MPA planning and management process. In the context of MPAs, equity means fairness and justice in relation to the distribution of the benefits and costs associated with the MPA. Notions of equity are subjective and value-laden, and thus may be contested. There may be considerable disagreement about what constitutes an "equitable" participation process, or an "equitable" distribution of costs and benefits. Determining what is equitable will be influenced by the disciplinary background, interests (e.g. conservation or economic development), dependence on or relationship to the resource, and agenda (e.g. expanding conservation networks versus alleviating poverty) of stakeholders and conservation authorities involved in the planning and management process. Consequently, gaining an understanding of people's values, beliefs and interests, as well as their relationship with the MPA and its resources, is crucial to understanding and addressing issues of equity.

The concept of equity has become pervasive in the theory and practice of MPA governance. It is a key principle underpinning various international instruments relevant to natural resource management. The Convention on Biological Diversity Programme of Work on Protected Areas, in Programme Element 2, is concerned with governance, participation, **equity** and benefit sharing, and has set targets for establishing mechanisms for the equitable sharing of costs and benefits arising from the establishment and management of protected areas. The IUCN inter-commission body on Indigenous Peoples, Local Communities, Equity and Protected Areas is focused on "the principle of equity in terms of rights and resources, and in terms of human dignity, self-determination and cultural continuity … The principle of equity underpins the benefits, the processes and the voices involved in Protected Areas" (www.IUCN.org). It includes issues of prior informed consent, securing property rights and human rights, as well as the relationship of rights holders and duty bearers in the management process.

Equity requires that conservation values be protected, but not at the expense of local communities' rights, needs and cultural values. However, achieving this balance while promoting equity concerns is a major challenge for conservation. MPAs exemplify this conservation challenge because they are primarily concerned with ecosystem protection and fisheries conservation. The first principle for ensuring the consideration of equity in MPA planning and management should thus be the following: *an MPA should not reinforce or exacerbate existing inequities*. If MPA processes fulfil the first principle, and address equity in a practical way, this will contribute to social justice, which is necessary for long-term MPA sustainability and success.

Thus the issue of equity has to be addressed at all stages of the MPA planning and management process. Through participatory engagement with relevant local communities and other stakeholders, proposed and existing plans and management decisions should be critically analysed in terms of equity considerations as they relate to the following:

❖ The development of a vision
❖ The formation of goals and objectives
❖ The consideration of rights and access to resources
❖ Determining the costs and benefits of the MPA
❖ The nature of participation in planning, management, evaluation and decision-making

Addressing historical imbalances and achieving equity are key principles in South Africa's Constitution, and also in the policies and laws governing environmental and marine resource management. The Marine Living Resources Act specifically requires the achievement of equity in all branches of the fishing industry, while the National Environmental Management Act and the National Environmental Management: Protected Areas Act call for an equitable distribution of resources and participation in decision-making, with a particular emphasis on the poor and marginalised sectors of society.

# Rights to access and manage resources

Perhaps the most politically contested aspect of MPAs is their effect on **resource access and use**. Most MPAs are characterised by controversy and conflict because they reallocate resources within and among stakeholder groups (Pomeroy et al, 2006). Their design and management often constrain or prohibit the existing activities of local resource users, while expanding the authority of management agencies. MPAs "may formalize or invalidate pre-existing de facto rights, thus reinforcing or undermining pre-existing privileges" (Mascia and Claus, 2008:17). Opposition to MPAs is often based on the concerns of local communities about losing whatever rights they may have in relation to a particular coastal area and its resources. The establishment of MPAs usually entails a re-allocation of rights regarding management and resource use, and may lead to significant social impacts. In South Africa, MPA establishment and management have largely resulted in loss of access or restricted access to resources and coastal areas, with significant negative social impacts. This re-allocation of rights can affect not only fishing activities, but also land ownership, food security, livelihoods and cultural practices. In some cases, customary land tenure systems have been undermined by the delineation of MPA boundaries that exclude local communities from areas of the coast that they historically had access to. There are, however, several cases internationally of MPA establishment and management resulting in local communities gaining and securing access and management rights with positive outcomes (Mascia and Claus, 2008).

The re-allocation of rights can have serious implications for local communities with a strong socio-economic and cultural dependence upon the right to access resources in a particular MPA. This is most starkly illustrated by the many conflicts over no-take zones and MPAs in which restricting or prohibiting access to resource-dependent communities creates a financial and socio-economic burden. This becomes acute when there are no viable economic alternatives and when decisions to establish or expand an MPA have not been undertaken in a participatory manner.

MPAs reorganise the regime of access and responsibility in relation to a specific coastal area, often with a significant effect on the food security and livelihoods of local communities. Management authorities should therefore assess the impacts of these conservation interventions on local communities, and ensure that inequities are not created or reinforced. This assessment should involve all relevant actors, and must attend to the following questions:

❖ How does the MPA affect historical use and access to the area?
❖ Who has the formal rights to manage and access an MPA?
❖ How were these rights established, and what is their basis?
❖ Whose interests do these rights support, and whose interests do they undermine?
❖ Are there overlapping rights regimes (e.g. customary governance systems) that compete for authority with formal rights regimes?

A critical consideration is making sure that the rights regime underpinning a particular MPA is equitable and supported by local communities and other relevant stakeholders. This pertains to access, use and management rights. If these rights have been undermined by the process of establishing, expanding or managing an MPA, then action must be taken to address this, or tension and conflict are likely to persist. Such action may involve engaging with local communities and other stakeholders to develop a new vision for the area, embarking on a re-zonation process, or engaging with other government departments in a search for alternative livelihoods. Such proactive measures can generate support for an MPA (or a reconfigured MPA), encouraging local communities and other stakeholders to work with management authorities and comply with regulations.

# Tenure

All over the world, small-scale fishing communities depend on marine and coastal resources for their livelihoods. Most of these communities have historically developed systems for managing their access to and use of these resources, and their fishery activities are an integral part of the social, cultural and economic relations in these communities. These systems, referred to as **tenure systems**, reflect the relationships and rules that groups of people have developed around their access to, use of and control over their resources. .

**Tenure** refers to the processes by which people get access to land, fisheries, forests and other natural resources. It is based on:

> … rules invented by societies to regulate behaviour. The rules of tenure define how rights to land and other natural resources are assigned within societies. They define how access is granted to rights to use, control and transfer these resources, as well as associated responsibilities and restraints. In simple terms tenure systems determine who can use what resources, for how long, and under what conditions. (FAO, 2011:1)

Tenure rights include a range of different rights, from the right to just use a resource, to the actual ownership of that resource. In some systems it includes the right and responsibility to use and manage the resource, but does not imply full ownership of the resource. Tenure relationships reflect power relations within a group as well as expressing the relationships between a community or group and the marine or inland natural resources that they use. In some communities, access to and use of the sea or specific inland water bodies are part of their ancestral practice, and hence their tenure rights have specific spiritual and cultural importance.

There is now an internationally agreed framework, including principles and accepted standards, for responsible governance of tenure of land, fisheries and forests. The FAO Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests (FAO, 2012) and Guidelines on Small-scale Fisheries (FAO, 2013) confirm a number of internationally recognised legal and policy instruments that protect and promote the tenure rights of small-scale fishing communities. The FAO Code of Conduct for Responsible Fisheries urges states to "protect the rights of fishers and fishworkers, particularly those engaged in subsistence, small-scale and artisanal fisheries, to … preferential access, where appropriate, to traditional fishing grounds and resources" (Article 6.18).

In South Africa, tenure security is a recognised principle in the Constitution, and many pieces of land, forest and marine resource use legislation aim to provide redress to those communities whose tenure was insecure as a result of past discriminatory legislation and policies. The Policy on Small-Scale Fisheries (DAFF, 2012) aims to provide redress for small-scale fishing communities and to promote their preferential access to marine resources and the coastal land upon which their livelihoods depend. Tenure issues therefore need to be considered in MPA planning and management processes.

# Representation and legitimacy

**Legitimacy** usually refers to the popular support and recognition by civil society/the public of the authority of a governing system, whether at the local, provincial, national or international level. It can mean different things to different people, and in practice it is always heavily contested. Nevertheless, legitimacy is crucial for MPA success, and has to be addressed at all stages of MPA planning and management. From the perspective of coastal communities, the legitimacy of a particular MPA depends on a number of factors. For example, a key issue would be whether local communities and other stakeholders have been consulted in the decision-making process leading up to the establishment of an MPA. Unilateral decisions inevitably undermine the legitimacy of an MPA in the eyes of local communities. There is also the question of how an MPA is governed and managed. MPA governance that reinforces or exacerbates existing inequalities will suffer from a legitimacy deficit. Local communities also assess an MPA's legitimacy in terms of its conservation efficacy, and whether its biological benefits are worth the social costs: for example, if they observe heavy industrial fishing activities in an MPA, they will likely question the legitimacy of that MPA. Considerations of MPA legitimacy also revolve around authority, and the sense of duty and obligation towards rules, principles or commands (Spencer, 1970:126). Clarifying who has formal authority to govern a particular area and establishing whether this authority is being questioned or contested is important in establishing legitimate governance systems for the MPA.

In the context of increasing calls for participation in MPA governance by affected communities, the issue of **representation** has become critical to MPA legitimacy. Community representatives mediate between their constituency and other MPA actors (such as managers, researchers, NGOs), so as to protect and promote the interests of that constituency, while also contributing to improved MPA management. Yet representation is often highly contested (i.e. political), and thus cannot be taken for granted. It is important to consider who are playing the roles of representatives, and the nature of their relationship with those they claim to represent. More specifically: who selected the representatives? According to what rules and criteria were they selected? Are the representatives members of the groups they represent? To what extent do the representatives' interests correspond with those of their constituencies? What is their level of knowledge regarding their constituencies and local MPA-related issues? It is also crucial to consider how accountable and responsive each representative is to his or her constituency. Unaccountable and unresponsive representation can undermine the participation of a local community in MPA governance, and thus contribute to community-level perceptions that a particular MPA is not legitimate.

Resource users' perceptions of an MPA's legitimacy significantly shape their actions in relation to that MPA. They may be more likely to comply with rules and engage in stakeholder processes if they perceive an MPA to be legitimate. Whether an MPA is perceived as legitimate by local resource users or not depends on their experience of the participation process, and the distribution of costs and benefits, rather than on abstract predictions of future benefits. Different actors may have contradicting perceptions of an MPA's legitimacy, and this could lead to conflict. It is thus necessary to also consider the following:

❖ What are the relevant actor's perceptions of a particular MPA's legitimacy?
❖ What is the basis for these perceptions?
❖ What is the relative power of those who perceive the MPA to be legitimate or illegitimate?
❖ What do these perceptions reveal about the way the MPA is governed and managed?

The issues of representation and legitimacy are central to MPA success. In situations where resource users' livelihoods are being affected by an MPA, it is crucial that they perceive this intervention to be legitimate, if the MPA is to achieve its overall goals.

# Benefits and losses

All stages of the MPA planning and management process need to take into account the benefits and losses that could result from decision-making and management scenarios proposed and implemented. **Benefits** relate to the positive impacts that result from management decision-making, whereas losses are the negative impacts. It is important to emphasise that this understanding goes beyond the economic context of cost-benefit analysis to embrace a wider social meaning that includes the ecological, social and political implications of the MPA process and outcomes.

Coastal ecosystems, as is widely known, provide a host of benefits related to ecological productivity, with rich and diverse habitats and resources, economic opportunities from subsistence use to global markets and spin-off economies, and contributions to human well-being that include food security, social cohesion and cultural significance. However, numerous losses are also attributed to coastal areas, including resource over-exploitation, habitat destruction and pollution, growing economic inequities related to coastal communities and outside economic interests, growing levels of poverty and marginalisation within these same communities, and enhanced conflict and contestation over access to coastal resources. In the case of MPAs, the benefits of conservation, for example, need to be understood in relation to the often significant losses felt by adjacent coastal communities. It has been recognised, both internationally and within South Africa, that while MPAs have been hailed for their positive ecological impacts on resources and habitats, and have provided economic opportunities through tourism, coastal communities and fisher groups have been affected negatively by these same MPAs, with often devastating consequences for local livelihoods and well-being (Christie, 2004; Sunde and Isaacs, 2008).

Thus, the long-term sustainability of an MPA relies on maximising the benefits and minimising the losses. It may not always be possible to quantify these benefits and losses, but the MPA planning team should be encouraged to draw on the expertise of social and natural scientists for the necessary research, with the participation of key stakeholder groups. In addition to ecological impacts, the following benefits and losses should be explored:

- ❖ *Governance*: resource control, property rights, use rights
- ❖ *Economic security*: assets, income, subsistence
- ❖ *Health*: nutrition, psychological well-being;
- ❖ *Social capital*: social networks, partnerships, trust
- ❖ *Culture*: local ecological knowledge, harvesting practices, sense of place, values and norms (Mascia and Claus, 2008()

Information should be gathered in such a way that the different stakeholder groups are all given the opportunity to participate, with the power dynamics between the groups taken into account. Based on the information gathered, measures should then be implemented to mitigate losses, further promoting the fair and equitable distribution of benefits.

Accounting for social benefits and losses and ensuring that MPA planning and decision-making do not jeopardise the livelihoods of resource users are vital for an MPA's long-term success. Benefits are more likely to result if stakeholders are actively engaged in the MPA process and their perspectives, needs and values are considered and incorporated into decision-making.

# Politics

**Politics** is often understood to refer to the manner in which people choose government officials and make decisions about public policy, where the focus is on elections, political parties, parliaments, policy and law-making. Yet politics is more than this. The term also refers to a specific form of *social relations* that infuses everyday life. In other words, politics should also be understood as the strategic contestation between different interests and ideas, conducted by individuals or groups who draw on symbolic and material resources, with the objective of influencing others or social processes. This perspective expands the meaning of politics to include day-to-day phenomena. It also draws attention to relations of power, operating at various levels from local to global.

MPAs provide a clear illustration of this broader conceptualisation of politics because of their capacity to affect how we think and act in relation to nature. The idea of protected areas is extremely powerful and has been incorporated into the conservation and development discourse. Thus conservation interventions, including the declaration and expansion of MPAs, are now seen as just, moral, and right by the conservation community and government agencies with an environmental or conservation mandate. However, the establishment and management of MPAs are political at their core, and usually involve the regulation of some people by other people to achieve conservation objectives. For example, the statutory authority over an MPA can sometimes mean that management agencies exercise indirect control over entire communities. It is well documented that MPAs are steeped in politics at every stage, from the development of policies and laws to MPA planning, establishment, and management.

Christie et al (2003) identify four basic "communities", each with a specific set of interests and agendas in MPA governance:

- ❖ Scientists engaged in knowledge production
- ❖ Managers with authority to govern and regulate user behaviour
- ❖ Resource users
- ❖ Conservation NGOs and donor agencies that advocate for MPAs

These groups, and the individuals that constitute them, occupy different positions in relation to MPA governance, with each position corresponding to particular interests and powers, such as access to financial capital, political influence, institutional authority, formal education, property rights, organisational capacity and moral legitimacy. Each particular "community" employs its bundle of powers through a range of strategies and tactics, to contest how MPAs are conceived and governed. The political dimension of MPAs can be clearly seen in terms of who is involved in formulating goals and objectives, who determines rights and access to resources, how costs and benefits are distributed, whose voice counts in planning and decision-making, and who has the power to make decisions.

There are no straightforward prescriptions for incorporating the political dimension into MPA planning and management. However, it is important to consider that *politics infuses every aspect of the MPA process*. Furthermore, party politics can also play a role in influencing behaviour, participation, co-operation and support for a process or decision. The influence of party politics may be particularly acute near election time (national or local), so MPA managers need to be sensitive about the timing of planning and consultation processes. It is crucial to recognise explicitly the role of political dynamics in shaping the MPA. It is also important to understand that *some actors are more powerful than others*: different actors have their own "bundle of powers", which they exercise to shape how an MPA is managed. Consequently, some actors are able to exert more influence than others. Management authorities must therefore identify who has power, what form of power they have, and how much. These power dynamics should be recognised explicitly. Mechanisms should be developed that mitigate or compensate for political dynamics and unequal relations of power.

An improved understanding of the politics of a particular MPA will lead to a more accurate understanding of political factors constraining and enabling particular management decisions and will also contribute to more informed decisions. This will help build long-term legitimacy, especially from the point of view of local coastal communities (see factsheet on Representation and Legitimacy). MPA legitimacy depends upon equitable participation and a fair distribution of costs and benefits associated with the MPA. If communities see their input reflected in governance decisions, and experience tangible benefits, they may grant an MPA the kind of legitimacy that is fundamental to the realisation of its biological and social goals.

# Patronage

**Patronage** refers to an individual or organisation awarding particular powers, privilege, support or resources to a person or group of people in order to gain certain advantages in return. "Political patronage" refers to such practices in the context of a political party or figure aiming to gain advantages from those on whom it bestows privileged access to resources, favours or support. Patronage politics might also operate in the power relations in and between government departments, government officials and communities. Patronage politics has proven to be a persistent challenge in democratic South Africa: "It is widespread, manifesting itself in the various sectors of our society, both public and private, as well as in various forms of organisation" (Ndeletyana et al, 2013:7).

In South Africa, it is argued that high levels of poverty make communities and individuals particularly vulnerable to patronage politics (Ndeletyana et al, 2013:8). Patronage is a reciprocally beneficial relationship, albeit not always an equal one. Communities that are the recipients of patronage may benefit from access to social grants, land, housing, infrastructure and a range of other resources in a context of increasing contestation over scarce resources. In return, the authority or person in power providing the patronage gains their loyalty and support, either at the polls or in the administration of a particular policy. This arrangement might also secure the silence of a person or a community in the face of corrupt or fraudulent practice on the part of the patron.

In the context of planning access to limited marine resources, where enjoyment of the benefits of resources might be highly contested, local communities may be vulnerable to the attraction of patronage politics. Similarly, in the context of multiple stakeholder interests and demands, a conservation authority may be tempted to use its political power to bestow certain advantages on a particular group in order to secure compliance or support. All interactions with stakeholders and between authorities involve the use of power. However, conservation authorities and officials need to ensure that their actions are ethical, transparent and accountable in order to ensure that they are not guilty of using power to their advantage through the creation of relationships based on patronage.

Transparency and accountability can be maximised through the development of standardised procedures in the planning and ongoing management of protected areas. The development of organisational policies to guide the actions of officials and the identification of procedures and mechanisms for regular reporting on activities will help safeguard the activities of both individual officials and the organisation as a whole from the dangers of patronage politics. Ensuring that all stakeholder interactions are accurately recorded and open to the scrutiny of other stakeholders provides a further check.

In South Africa, a range of legislation aims to promote accountable, democratic practice. In particular, the National Environmental Management: Protected Areas Act offers guidance on the procedures for stakeholder consultation and participation as well as the development of a framework for the management of protected areas. This framework aims to ensure that all South Africans have access to information and enjoy the benefit of good governance and equitable, ethical practices in the management and conservation of marine resources.

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# GOVERNANCE 5

# Community organisation

**Community organisation** refers to the mobilisation and organisation of individuals and groups in a community, often around a particular sector (e.g. fishing, land reform or health) or an issue (e.g. a proposed new development, local savings).

> Communities are not homogeneous entities. Communities may define themselves in a variety of different ways based on criteria such as cultural heritage, ethnicity, language, geographical location, shared resources and/or knowledge. In some contexts communities may comprise a number of groupings (cultural groups, youth groups, civic associations, resource user committees, traditional healer groups and so on). All of these would represent different sectors and interests in the broader community, and therefore their involvement in planning and management should be sought.

Being organised as a community enables individuals in that community to share information about issues and concerns, to discuss and address problems and to make decisions jointly about issues that affect the community or a sector of it. It also provides an entry point for outsiders to engage with the community. In some areas, there may already be community structures in place, such as traditional tribal councils, civic associations or community property associations, that are supposed to represent the interests of the community. Such organisations provide a space where individuals can meet, share information, discuss issues of concern, explore opportunities, plan and make decisions. However, they may not always represent all sectors of society, and in particular the poor and vulnerable groups (e.g. women and pensioners). In some areas, community organisations may have become dysfunctional due to past political injustices or unfair resource allocation decisions, leading to conflict and a breakdown of trust in the community. In such contexts, revitalising existing organisations or facilitating the establishment of new ones may be required to ensure that the views of the community are heard and integrated into planning, management and decision-making.

The individual (e.g. a facilitator appointed by the conservation agency) or agency (e.g. SANParks) responsible for facilitating an MPA planning, management and/or evaluation process will need to be aware of the composition and dynamics of the local community organisations and gather appropriate information to determine their credentials and legitimacy in the community. Determining which organisations should be part of any MPA planning and decision-making process should be the role of the community or communities, not of the government.

Where communities are not organised, or need to be better organised so that they can participate in a planning process and contribute to decisions that will affect them, the relevant government agency (e.g. the Department of Environmental Affairs) or an independent facilitator (who may be appointed by the government agency) or an NGO working in the area will need to work with community members to raise awareness, build institutional and individual capacity, and facilitate the organisation of community members into some grouping (e.g. an association, an informal group, a co-operative, a civic association or a community property association). Information about the importance of being organised, what kinds of organisations can be established and how they should function is essential before people can make progress towards being organised.

# Information flow and communication

**Information flow and communication** are activities that convey information through the exchange of thoughts, messages or information by oral, written or visual means or by behaviours. They constitute the two-way process of sharing information and ideas. Communication involves getting a message across and receiving information and ideas from others. It is a process that varies for different audiences, depending on many factors including education, knowledge and the socio-economic and cultural context, as well as values and expectations. It is important, though, not to make assumptions about these factors before engaging with stakeholders and understanding the context.

Key objectives for effective communication are:

❖ To give information
❖ To find out information
❖ To share information (a combination of the first two)
❖ To keep people informed (e.g. report on progress)
❖ To foster trust and build relationships
❖ To ensure accountability
❖ To build capacity and knowledge
❖ To address problems, seek solutions and manage conflict

There are various ways in which people communicate:

❖ *Spoken or oral communication*: This is the most common form of communication, but it is important to realise that there may be language or cultural barriers involved.
❖ *Written communication*: This is usually used in more formal situations, and here both language barriers and the education and literacy levels of people need to be taken into account.
❖ *Use of visual material (photos, videos, diagrams, maps, etc)*: This can enhance understanding, especially where educational backgrounds differ or people do not share a spoken language.
❖ *Body language*: This gives an indication of people's feelings, and can also be important when people do not share a spoken language.

The methods and techniques used to communicate with stakeholders are just as important as the information being communicated. Spending time with people is one of the best ways of learning what methods of communication are most effective in a particular context. For example, providing written reports to villagers to communicate information about the progress of a tourism project is inappropriate where education levels are low: asking the headman or members of a relevant committee to invite people to a community meeting for an update may be more appropriate. Thus determining appropriate communication methods and ascertaining what technologies are available should be part of determining stakeholder communication requirements. The nature and mode of communication are therefore not fixed, but constantly adapt to changing circumstances and relationships.

Communication, then, is a key element in the MPA planning and management cycle. Developing a **communication strategy** to clarify the best way to communicate with different stakeholders during the process is therefore advised.

# Stakeholder participation

**Stakeholder participation** refers to the full and effective participation of individuals and groups in decisions and processes with a potential impact on their lives and livelihoods. **Stakeholders** are individuals or groups that may have a direct or indirect interest or stake in a marine resource and/or area and its management, or may be affected by decisions regarding the current and future use and management of such a resource and/or area. Stakeholders are not homogeneous, so it is important to differentiate between primary stakeholders those with direct interests and/or rights (e.g. right holders, local communities dependent on resources) and other stakeholders (e.g. recreational users, NGOS, researchers). Participation is an ongoing process of information sharing, co-production of knowledge, and discussion and negotiation among stakeholders, and it requires involvement at all stages of the planning and management cycle: planning, assessment, management, review and evaluation. Participation is time-consuming, especially during the initial stages of engagement, and must be built on a foundation of trust, transparency and accountability to ensure a long-term working relationship.

Participation is a key principle of several multi-lateral agreements that South Africa is committed to that are relevant to MPAs. For example, the Convention on Biodiversity Programme of Work (Target 2.2) sets as a goal for parties: *"Full and effective participation … of indigenous and local communities*, in full respect of their rights and recognition of their responsibilities, consistent with national law and applicable international obligations, and the *participation of relevant stakeholders*, in the management of existing, and the establishment and management of new, protected areas". Participation is also a fundamental requirement of South Africa's Constitution, and of several environmental and conservation management policies and laws. For example, the overarching environmental law in the country, the National Environmental Management Act (1998), requires that the "participation of all interested and affected parties in environmental governance must be promoted, and all people must have the opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective participation, and participation by vulnerable and disadvantaged persons must be ensured" (section 2(4)(f)). Principles and provisions relevant to public participation and how it should be conducted are found in several other laws relevant to MPAs, namely the National Environmental Management: Protected Areas Act (2004), the National Environmental Management: Biodiversity Act (2004) and the National Environmental Management: Integrated Coastal Management Act (2008).

Critical first steps are the identification and notification of all relevant stakeholders regarding an issue, a planning process or a proposed project that requires consideration and how they can be involved. However, it is important to realise that different stakeholders will have different interests, agendas and degrees of power and influence. For example, the manager of a local fishing company or members of a local angling group may be easy to identify and might readily respond to opportunities to participate because they have relatively easy access to media, electronic mail, transport and funds. On the other hand, local-resource-dependent communities may live in more remote areas with little access to the media or transport. Furthermore, special attention needs to be given to identifying and supporting marginalised and vulnerable groups (e.g. women, the disabled) in the process of participation. Whoever is managing the participation process (e.g. the conservation authority, a national department or an independent facilitator) must ensure that all relevant rights holders, local communities and other stakeholders are identified and enabled to participate. This may require the provision of transport, funding and/or translation at meetings. In some cases, it may be necessary for groups to identify representatives to act on behalf of a community or interest group. Ensuring that representation is legitimate and serves the needs of the broader group is critical to achieving full and fair participation (see Factsheet on Representation and Legitimacy).

The many benefits of involving stakeholders in the process of MPA planning and management include:

❖ The process brings together divergent views, knowledge and skills for innovative planning and problem-solving.
❖ It acknowledges local and indigenous knowledge and integrates it in the process.
❖ In this way support and buy-in are obtained from stakeholders for plans, management protocols and rules.
❖ Involvement of stakeholders promotes the sharing of decision-making and management responsibilities, thus enhancing the local stewardship of resources.
❖ Collaboration between authorities and local stakeholders can help with enforcement.
❖ Awareness of the values and benefits of MPAs is enhanced.

A number of tools and techniques for stakeholder participation are identified and discussed throughout the guidelines.

# Policies and laws

A vast array of policies and laws at different levels of governance – local, provincial, national, regional and international – need to be taken into account in MPA planning and management in South Africa. These **policies and legal instruments** contain norms, principles, objectives and provisions that all organs of state need to accommodate in planning, management and decision-making processes. At the national level, the government has promulgated a number of policies and laws relevant to environmental management and the management of coastal and marine resources, such as the National Environmental Management Act (1998), the Marine Living Resources Act (1998) and the Policy for Sustainable Coastal Development (2000). Furthermore, there is specific legislation relevant to protected area management, such as the National Environmental Management: Biodiversity Act (2004) and the Protected Areas Act (2003). At the provincial level there are various ordinances and Acts such as the conservation ordinances and planning laws, and at the local level there are by-laws including those dealing with beach amenities that may be relevant in the context of MPA planning and management.

A legal norm or principle is a compulsory rule of conduct established by the state. For example, the principles contained in the National Environmental Management Act (1998) require the state to "respect, protect, promote and fulfil the social, economic and environmental rights of everyone and strive to meet the basic needs of previously disadvantaged communities" (Preamble).

However, there are other policies and laws that also deal with issues such as fundamental human rights (Constitution, 1996), socio-economic development (e.g. the Green Paper on Agrarian Transformation, Rural Development and Land Reform, 2011) and indigenous knowledge systems (Indigenous Knowledge Systems Policy, 2004) that may be relevant to the MPA planning and decision-making process and need to be considered.

In addition, South Africa is committing itself to an increasing number of international instruments such as conventions, protocols and agreements that need to inform MPA planning and management and guide decisions. Many of these instruments, also known as "soft laws", set out norms and guidance for planning, management and decision-making that are relevant to all spheres of life and all sectors (e.g. the Universal Declaration of Human Rights, 1948, and the Declaration on the Rights of Indigenous Peoples, 2007), while some focus on particular sectors or interests such as biodiversity or marine conservation (e.g. the Convention on Biological Diversity, 1992). As a signatory to such instruments, South Africa has committed itself to putting in place policies, legislation and management systems to give effect to the principles and provisions contained in them.

Many of these legal instruments are directly relevant to the conservation of coastal and marine systems. For example, the 1982 Convention on the Law of the Sea requires every state to take into account relevant environmental and economic factors, including the economic needs of coastal fishing communities, in the process of taking measures to conserve and manage marine living resources in its exclusive economic zone. The Convention on Biological Diversity requires governments to develop conservation policies and practices that "protect, preserve, and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity".

Conservation agencies, which are mainly concerned with conservation planning and management, are required by law to consider these various policy and legal frameworks. Sometimes the provisions may seem contradictory or in conflict with their core mandates, but the Constitution provides clear guidance and requires all organs of state to balance these diverse interests and rights, and to ensure that decisions do not undermine the rights contained in the Constitution's Bill of Rights. Consequently, MPA planners, managers and facilitators will need to familiarise themselves with the relevant policies and laws to ensure that their planning and decision-making processes are aligned with all these various legal instruments.

For further information on policies and laws relevant to MPAs see L. Sisitka and P. Fielding, 2011, Management Training for South Africa's MPA and Critical Coastal Areas, Module 1, (4th edition), WWF-SA and Rhodes University Learning Research Centre, South Africa.

# Enforcement and compliance

**Enforcement and compliance** concern the rules and regulations that govern MPAs and environs, and the extent to which they are supported and complied with. In South Africa, the state has promulgated a number of policies and laws, including regulations that pertain to MPAs. Furthermore, in protected areas where some level of exploitation of resources is permitted, permits or licences may stipulate conditions and rules for harvesting resources (e.g. how much, what size, when and by whom). Enforcement is about enforcing existing rules and laws (through patrolling or visible policing) and trying to minimise non-compliance by increasing the chances of getting caught, and ensuring that there are repercussions for those caught (e.g. adequate "punishment" – fines, etc). Enforcement is a major focus of activity in most MPAs in South Africa and consumes resources, time and a large percentage of the budget – yet transgressions continue.

Increasingly MPA practitioners and researchers worldwide are realising that reliance on conventional state-driven law enforcement is not leading to compliance. This is because state-driven regulatory systems often fail to understand the complexity of the socio-economic and cultural context of local communities and other stakeholders. Furthermore, these policies and laws have mostly been developed by government officials without local communities and other stakeholders being involved. Consequently, in many cases, these rules are not well understood, respected and supported by local resource users, recreational users and other stakeholders. In the case of the east coast of South Africa, many local and indigenous communities live according to customary law, and their actions and behaviour are determined by customary practices and informed by customary institutions (see factsheet on Customary Fishing Practices and Rights). In some cases, local communities may be unaware of state laws, and in other cases, customary and/or local rules and agreements may conflict with state rules, resulting in high levels of conflict. Increased policing and enforcement of state rules is not proving to be effective and, in some cases, is escalating conflict. Given that South Africa's Constitution recognises customary law as an equal source of law, the making of laws and rules relevant to MPAs needs to take the recognition of customary rules and norms into account.

There are several factors which may influence compliance in MPAs, these include:

❖ High levels of poverty in the area and the absence of alternative food and livelihood sources
❖ The perception that rules are unfair and impact on access to food and livelihoods
❖ Confusion and a lack of understanding of the rules and regulations
❖ A lack of respect for customary rules and norms that may exist
❖ Inadequate understanding of the need for, and benefits of, MPAs and associated regulations
❖ Inadequate enforcement in MPA areas

Levels of compliance are likely to be higher in areas where there has been sufficient and appropriate engagement with local resource users and other stakeholders in the planning and management of an MPA and lower in areas where MPAs were declared without consultation with local communities and other relevant stakeholders. Gaining the support of local communities and stakeholders regarding the need for an MPA and involving them in identification, planning, monitoring and management are likely to improve compliance (see factsheet on Representation and Legitimacy).

Enforcement and compliance can best be achieved through mutual respect and good relations between MPA authorities and communities and other stakeholders. Good communication and co-operation are therefore crucial (see factsheet on Information Flow and Communication).

# Institutional arrangements

**Institutional arrangements** are the principles, prescriptions, policies, rules (formal and informal), processes and interactions that people and organisations use to structure, plan and manage their activities, and to co-ordinate with other organisations and individuals to fulfil their purpose or mandate in an efficient, fair and effective way. We typically think of an institution as a government department, an NGO, a local committee or a facility such as a frail care home or sports club, or even a business such as a financial institution. But clearly institutions need to be more broadly conceptualised. Institutions can be defined as systems of established and prevalent social rules that structure social interactions. They are usually organised or structured around a set of values, principles, objectives, behaviours, expectations, rules, roles, responsibilities and hierarchies. Thus institutions are widely defined and include languages, legal systems, monetary systems and rights allocation systems, and extend to social norms, cultural practices and ceremonial events.

In the context of MPAs in South Africa, the institutional landscape is complex, comprising several different government institutions at all levels of government (e.g. the Department of Environmental Affairs, the Department of Agriculture, Forestry and Fisheries, SANParks, CapeNature, the City of Cape Town), NGOs (e.g. WWF South Africa, the Masifundise Development Trust, BirdLife South Africa), research institutions (the South African National Biodiversity Institute, university departments), traditional authorities (e.g. tribal chiefs, headmen and sub-headmen), local development trusts, communal property associations, local natural resource management institutions (e.g. water user associations, local resource committees) and local civic associations. Each of these institutions or organisations is guided by certain principles and objectives (which may be enshrined in law), values, a disciplinary orientation, sets of rules, and an institutional culture. Yet MPA planning and management require both horizontal and vertical co-ordination across these institutions at the different levels of governance – which is indeed a huge challenge.

There are thus multiple institutions that need to be involved in MPA planning, especially if the aim is to adopt an approach based on ecosystems and human rights. While Department of Environmental Affairs is the lead agency in South Africa for MPAs, other national departments such as the Department of Forestry and Fisheries are key players through their responsibility for marine resource management, while a national research institution such as the South African National Biodiversity Institute plays a critical role in terms of overall conservation planning in the country. MPAs, whether managed by provincial or national conservation agencies, will therefore need to engage with national departments and even with local government departments (e.g. a department of local economic development where alternative livelihoods are being developed) through **vertical integration**. In the case of the provincial MPAs, conservation managers will also need to engage with provincial departments (e.g. a regional office of the national Department of Rural Development and Land Reform), other relevant agencies (e.g. research groups working in the area) and institutions (e.g. local traditional leaders) that play a role, have an interest in or may be affected by the MPA through **horizontal integration**. For example, in areas where traditional authorities and customary law play an important role in guiding social behaviour and decision-making, it is imperative to recognise and seek to gain an understanding of such institutions and to find ways of incorporating aspects of them (e.g. local rules relevant to access to marine resources) into the overall MPA planning and management system.

The multiplicity of institutions, sometimes with unclear and/or overlapping mandates, leads to confusion among governance actors involved in MPA management, as well as local communities and other stakeholders. Thus identifying all relevant institutions, gaining an understanding of their institutional culture and clarifying their roles and responsibilities is an important part of improving co-ordination and co-operation across these multiple institutions, building trust and respect, and improving MPA performance.

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# Recommended readings

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Conservation planners, MPA managers, researchers and local communities are calling for a more people-centred approach to MPA planning and management, recognising that conservation and fisheries management objectives will *not* be realised unless human dimensions and societal concerns are adequately addressed. This guideline document aims to provide guidance on how **human** dimensions can be understood and integrated into MPA planning and management processes.