PRACTITIONER'S FIELD GUIDE

for

MARINE CONSERVATION AGREEMENTS

Final V. 1 May 2009

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www.mcatoolkit.org

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The *Practitioner's Field Guide for Marine Conservation Agreements* reflects the combined experiences of numerous organizations and agencies within and outside the United States. The field guide serves to "harmonize" the conservation agreement approaches used by The Nature Conservancy (which largely drew from its experiences within the United States working in coastal and marine areas) and Conservation International (which largely drew from its experiences outside the United States working in terrestrial areas as well as marine areas). The field guide is a companion to the on-line toolkit, *Marine Conservation Agreements – A Practitioner's Toolkit* (available at: www.mcatoolkit.org). Contributing organizations and agencies are listed below. Our apologies if we have left anyone off the list.

- Atlas South Sea Pearl
- Audubon California
- Blue Sphere Media
- Catalan Nature Stewardship Network
- Center of Advanced Studies in Ecology and Biodiversity
- Chumbe Island Coral Park
- Coastal States Organization
- Conservation and Community Investment Forum
- Conservation International
- Conservation Law Foundation
- Galveston Bay Foundation
- Locally-Managed Marine Area Network
- Madison Shellfish Commission
- Misool Ecoresort
- National Oceanic and Atmospheric Administration – Coastal Services Center
- Nature Conservancy of Canada
- NAZCA Institute for Marine Research
- New England Aquarium
- Philippines Department of Environment and Natural Resources
- Rhode Island Sea Grant
- Richardson Bay Audubon
- Roger Williams University School of Law
- The Nature Conservancy
- The Ocean Foundation
- University of South Pacific - Fiji
- Walton Family Foundation
- World Wildlife Fund

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Introduction

The *Practitioner's Field Guide for Marine Conservation Agreements* (MCAs) is intended to take field practitioners through a four phase, step-by-step process to investigate, develop and implement MCAs. Materials presented in the field guide are supported by a large volume of information compiled in an on-line companion resource, *Marine Conservation Agreements – A Practitioner's Toolkit* (available at: www.mcatoolkit.org). An outline of the MCA Toolkit contents is found in Appendix 1.

The MCA field guide consists of:

- Phase 1: Feasibility Analysis
- Phase 2: Engagement
- Phase 3: Agreement Design
- Phase 4: Implementation

Each phase of the field guide has several sub-steps (see Table 1). The phases and sub-steps are presented in an order that should more or less be applied chronologically. However, project-specific circumstances may require practitioners to diverge from this order by undertaking some activities before others or by returning to activities that are already completed but require additional work. This non-chronological, iterative application of the field guide phases and sub-steps is likely more common than not. Throughout the process, we encourage practitioners to use the field guide adaptively and to reach out to others in the marine conservation community, through internal or external networks or through the MCA Toolkit, to learn from and contribute to the experiences of others.

Table 1: Field Guide Checklist

Phase 1: Feasibility Analysis Checklist	
	1.1 Conservation targets are established
	1.2 Threats and strategies are determined
	1.3 Ownership, management and use are known
	1.4 Laws and policies are supportive
	1.5 Organizational capacity is sufficient
	1.6 Stakeholders and their issues are identified
	1.7 Costs and financing are assessed
	1.8 Reporting has been completed
Phase 2: Engagement Checklist	
	2.1. Team selected
	2.2. Plan developed
	2.3. Ideas exchanged
	2.4. Agreement verified
Phase 3: Agreement Design Checklist	
	3.1 Conservation commitments are established
	3.2 Recipient benefits are determined
	3.3 Compliance mechanisms developed
	3.4 Sanctions are agreed upon
	3.5 Regulatory permits issued or applied for
	3.6 Final actions are completed
Phase 4: Implementation Checklist	
	4.1 Administration accounted for
	4.2 Planning initiated
	4.3 Outreach planned and begun
	4.4 Science program established
	4.5 Enforcement needs assessed and met
	4.6 Public uses promoted and managed
	4.7 Livelihoods identified
	4.8 Habitat management needs realized
	4.9 Maintenance identified and scheduled
	4.10 Funding needs assessed and acquired for the long-term

Target Audience and Geography

The MCA field guide identifies a process to evaluate the applicability of MCAs to specific sites, resources or ecosystem services for ocean and coastal areas throughout the world. The field guide is intended to be used by conservation practitioners who understand the basic theory and framework of MCAs. The field guide does not give detailed background and contextual information regarding MCAs, nor does it provide extensive information on marine and coastal biology. For detailed information on MCAs, readers should consult the on-line MCA Toolkit at: www.mcatoolkit.org.

Overview of MCA Theory and Framework

When using the MCA field guide, practitioners should keep in mind the theory and framework for MCAs. *Marine Conservation Agreements* include any formal or informal understanding between two or more parties in which the parties obligate themselves, for an exchange of benefits, to take certain actions, refrain from certain actions, or transfer certain rights and responsibilities to achieve agreed upon ocean or coastal conservation goals.

Table 2 identifies the major elements and variables of MCAs. MCAs can be entered into by governments, communities, private entities, and private individuals. They are based on agreed upon terms and conditions, are often bottom-up approaches, and include quid-pro-quo incentives wherein all parties receive benefits.

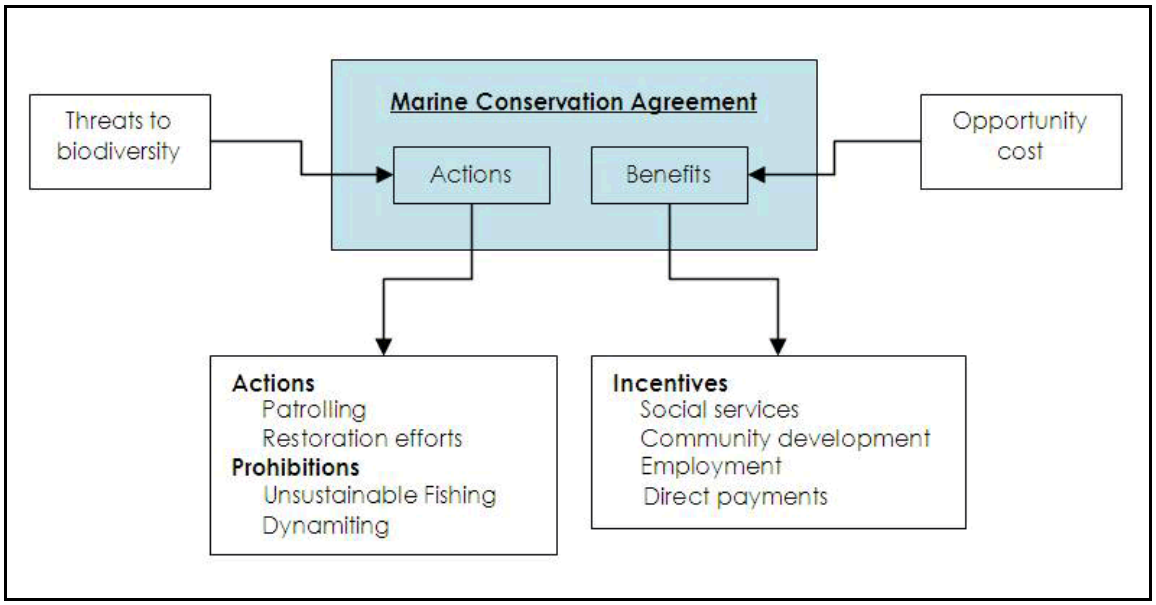
Table 2: Elements and Variables of Marine Conservation Agreements

Mechanisms		**Parties**		**Benefits**	
Formal	**Informal**	**Grantor (right-holder)**	**Grantee**	**Incentive**	**Protection**
▪ Concession ▪ Contract ▪ Easement ▪ Lease ▪ License ▪ Mgmt. Agreements ▪ Permit ▪ Purchase & Sale	▪ Verbal ▪ Handshake	▪ Private Individuals ▪ Private Companies ▪ Local Groups ▪ Local Govt. ▪ State Govt. ▪ Federal Govt.	▪ NGOs ▪ Communities ▪ Ecotourism Companies ▪ Govt. agencies ▪ Aquaculturists ▪ Other for-profits	▪Direct Payments ▪Social Services ▪Infrastructure ▪Jobs ▪Culture ▪Pride	▪Ownership ▪Access ▪Harvest Management (e.g. No-take Zones)
Duration can be defined or undefined		Lead implementer can be grantor or grantee		▪ Behavior changes ▪ Laws/regulations ▪ Private MPAs ▪ Community MPAs ▪ State/Fed'l MPAs	

Common examples of MCAs include concessions, contracts, easements, leases, licenses, management agreements, permits, and purchase and sale agreements. NGOs have used MCAs to help manage specific areas, harvesting methods, and access to resources. These efforts have protected important marine biodiversity while positioning NGOs as vested and solution-oriented stakeholders with governments and communities responsible for decision-making.

MCAs make biodiversity conservation a viable choice for resource owners, managers and users (collectively, "right-holders") by providing tangible benefits in exchange for effective conservation of high priority areas and species (see Figure 1: MCA Conceptual Model). At a minimum, MCAs specify the conservation actions that must be undertaken, the benefits that will be provided in return for those actions, and a monitoring system with sanctions to ensure compliance with the terms of the MCA.

Figure 1: MCA Conceptual Model



Phase 1: Feasibility Analysis

The feasibility analysis is designed to assist organizations in determining if MCAs can help meet the organization's conservation goals at specific sites or for specific species. The criteria within the analysis can augment existing decision-making criteria organizations may already have or can stand alone when other criteria are absent. In general, if projects do not meet all or most of the criteria, then other conservation strategies may be more effective.

Determining the feasibility of successfully applying MCAs at specific sites or to specific activities requires knowledge of the proposed sites and activities as well as their regional or national contexts. While analyses can take many forms and in many cases may take longer than expected, we suggest at least two possible levels of feasibility analyses – initial and in-depth. These two levels of analyses can be used in conjunction with one another or separately. Our current knowledge about the feasibility of using MCAs in a limited set of countries and U.S. ocean coast states can be accessed through the Country Analyses and U.S. State Analyses at: www.mcatoolkit.org. The analyses found in the online toolkit primarily focus on 1.4 Laws and Policies and, as such, do not constitute comprehensive analyses as described here in Phase 1.

Initial Analysis

To gain a relatively quick, initial understanding of whether an MCA can be applied to a site or activities we suggest an initial analysis be undertaken. This initial analysis, which should take approximately two weeks, will determine at a very high-level the basic parameters of the situation, to include the conservation targets, threats, actions, stakeholders, partners and issues. If the initial analysis is positive, then one of two actions can be taken: 1) An MCA project can be formally launched; or 2) An in-depth feasibility analysis (see below) may be undertaken.

Determining whether to immediately launch an MCA project versus undertaking additional feasibility analyses depends on how comfortable field staff, organizational decision-makers and funders are with the available information and how urgent the conservation need is. In any case, the initial analysis will aid in the preparation of proposals to decision-makers and donors.

The initial analysis should consider at least the following four elements to indicate that an MCA is a viable tool for a site or activity:

1) There is a conservation organization (preferably locally-based) that is capable of designing, overseeing and implementing the MCA project. This "lead" organization must be able to conduct engagement activities, negotiations and follow-up for the MCA in the field, and support the overall process with technical expertise such as financial management, monitoring and fundraising. A lead conservation organization may not have all the necessary capacities in-house, but must be able to partner with others as needed.

2) There is an identifiable owner, manager or user (collectively, right-holders) of the lands, resources or ecosystem services targeted for conservation who can serve as a clear agreement

counterpart (i.e., an entity or entities that are interested in the conservation outcome, or for whom an MCA could make the conservation outcome attractive).

3) The actions required to abate threats to the conservation targets can be performed by the right-holders or lead conservation organization, or the agreement can enable the counterpart or implementer to perform the actions.

4) There is some other attractive characteristic to the site, such as:

- The site will likely score high on all of the in-depth feasibility criteria;
- The project offers a valuable learning experience regarding MCAs (i.e., a new type of right-holder, funder or legal mechanism); or
- The site is attractive and easily could be funded or a funder is already identified.

In-depth Analysis

For MCA projects that pass the initial analysis, or when the initial analysis is by-passed, a formal, in-depth feasibility analysis may be required or desired. Much of the information necessary for the in-depth analysis will likely be known by the lead conservation organization and partners, but some fieldwork and additional study may be needed. If fieldwork requires engagement with potential stakeholders, it is especially important to avoid raising expectations about the project prior to completing Phase 2: Engagement and Phase 3: Agreement Design.

The in-depth analysis begins by identifying conservation targets.

1.1 Conservation Targets

The first sub-step of the in-depth feasibility analysis is to determine what the conservation targets are for the area in question. Is the biological importance of the area, resources or ecosystem services known? If so, how important are they?

For the purposes of the MCA field guide, conservation targets represent, collectively:

- Species, habitat and ecosystem features;
- Conservation goals for those features; and
- Priority sites where the features are represented.

The features are what you aim to conserve, such as specific species, habitats, resources, ecosystems and their ecological processes and services. The conservation goals are the ways you wish to affect those features, such as maintaining current population levels, increasing habitat area by 30%, or protecting 100% of an existing habitat area. The priority sites are the specific locations where the features are best conserved.

The prioritization of specific sites will help determine if an MCA can achieve valuable and measurable conservation outcomes (i.e., species protected, number of hectares protected, number of hectares connected) and will aid in the development of conservation commitments. Conservation organizations should be able to clearly articulate what the conservation targets are for a particular area or resource before pursuing an MCA project. A goal to simply protect a site is decidedly different from a goal to restore impaired ecological functions. A goal to educate the

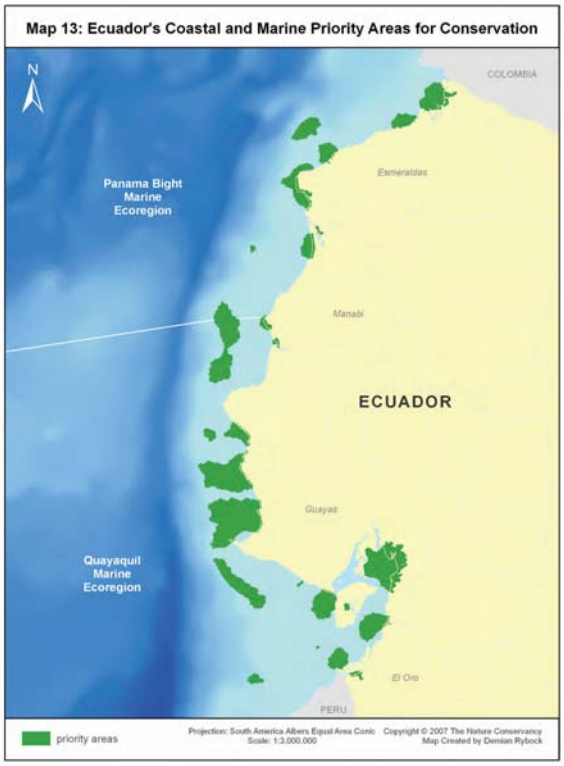
public may require a very different MCA than undertaking scientific research. The statement of goals should also take into consideration how the current right-holders view the use and management of the area.

Methods to Identify Conservation Targets

Ecological justifications for protecting sites, resources or ecosystem services provide information on why projects are important for conservation (e.g., species diversity, endemism, representation) and describe the area's characteristics (e.g., site condition, size, connectivity to other protected areas, threats to its conservation). Many conservation groups apply a scientific approach to identify regions where conservation is a priority (e.g., Conservation International's Key Biodiversity Areas, Hot Spots, and Wilderness Areas; The Nature Conservancy's Ecoregional Assessments), based on the presence of important ecosystems for conservation, quality of habitat, and level of threat (for example, see Figure 2: Ecuador Priority Conservation Areas). These prioritization schemes generally allow one to justify the importance of working within a particular region. Further work may be necessary to justify a specific site's importance based on its local characteristics.

Other conservation organizations identify priority areas more opportunistically. Examples of opportunities that may lead to MCA projects include an offer from a willing donor or seller, funding availability, partnership interests, or unique niches that have not been filled. Organizations may also be interested in testing MCA strategies and, as such, may first determine where an MCA can occur, then determine which areas are of conservation interest, and lastly determine what activities can be undertaken to protect the conservation interests.

Figure 2: Ecuador Priority Conservation Areas



Map © The Nature Conservancy

Articulation of Conservation Targets

How organizations articulate their conservation targets depends primarily on three factors:

1. The organizational mission and funding objectives;
2. The legal framework under which the MCA will be entered into; and most importantly
3. The stakeholders who can influence the MCA and who will be affected by the MCA.

Based on these three factors, organizations may want to articulate their conservation targets as protecting marine biodiversity or providing marine ecosystem services, or both (see Table 3: Potential MCA Conservation Targets). While biodiversity protection and ecosystem services provision are technically different targets, they are compatible with one another and can be used inter-changeably if needed.

In some cases, organizations may have to convince stakeholders (including the owners, users, or managers who will enter into the MCA) that the MCA will not simply tie up areas for no use (i.e., setting areas aside to protect them). Instead, organizations may have to convince stakeholders that the MCA will provide a service to the community. Providing something to the community (and others) may be considered more of a productive use which may be easier for stakeholders to understand, accept, and authorize. As such, articulating that the MCA will provide ecosystem services to the community may be necessary in order to protect biodiversity (for more on ecosystem services, see www.ecosystemvaluation.org). Whether stakeholders will be receptive to messages of biodiversity protection or ecosystem services provision is a determination that must be made on a case-by-case basis. In any event, MCAs can achieve both.

Practitioners should consider that MCAs are most frequently, but not always, applied when conservation targets are place-based or affected by place-based management. Place-based targets include species, habitats, resources, or ecological processes and services that are more or less restricted to specific geographic locations. Place-based targets often include:

- Intertidal and subtidal sediments;
- Flora and fauna attached to sediments; and
- Structures (historical, cultural, or habitat).

Generally, mobile conservation targets that include fish, water, and air require unique MCAs, such as the sale of fishing concessions in some Latin America countries, which give private entities exclusive rights to fish in specific geographic areas. In some circumstances, mobile priorities may be indirectly protected by MCAs.

Table 3: Potential MCA Conservation Targets

Biodiversity Elements		Ecosystem Services[1]	
Elements	**May be protected by MCAs**	**Services**	**May be provided by MCAs**
Land - can be adjacent coastal uplands, intertidal lands (between the high and low tide lines), or subtidal lands (below the low tide line).	▪ Sediments, soil, sand, gravel, minerals and oil ▪ Physical natural structures attached to or embedded in land, such as shellfish reefs	**Provisioning -** are the products obtained from ecosystems.	▪ Energy (wave, tidal, current, wind, thermal, solar, oil and gas) ▪ Fiber, timber ▪ Foods, spices (seafood, waterfowl, seaweed) ▪ Precursors to pharmaceutical and industrial products
Plants - can be attached to bottom sediments, floating in the water-column, or floating on top of the water. To note is that rights to protect plants which are attached to soil and sediments can be directly or indirectly connected to rights associated with land.	▪ Eelgrass, kelp and other forms of seagrass and algae ▪ Mangroves	**Regulating -** are the benefits obtained from the regulation of ecosystem processes.	▪ Atmospheric and climate regulation ▪ Biological regulation ▪ Erosion control ▪ Flood and storm protection ▪ Freshwater storage and retention ▪ Hydrological balance ▪ Nutrient dispersal and cycling ▪ Waste decomposition and detoxification
Animals - can be permanently or temporarily embedded in the bottom sediments (usually sessile), live on top of the substrate (usually somewhat mobile), live in the water column (usually very mobile), or live above the water. To note is that rights to protect animals which are embedded in soil and sediments can be directly or indirectly connected to rights associated with land.	▪ Fish ▪ Shellfish ▪ Coral reefs ▪ Marine mammals ▪ Birds	**Supporting -** are ecosystem services that are necessary for the production of all other ecosystem services.	▪ Crop pollination and seed dispersal ▪ Nutrient cycling ▪ Pest and disease control ▪ Purification of water and air
Water - can be intertidal or subtidal.	▪ Water quality* ▪ Water quantity* ▪ Water column*	**Cultural -** are the non-material benefits people obtain from ecosystems through spiritual enrichment, cognitive development, reflection, recreation, and aesthetic experience.	▪ Aesthetics ▪ Cultural, intellectual and spiritual inspiration ▪ Recreational experiences (boating, diving, swimming, site-seeing, photography, surfing, waterskiing, parasailing, sunbathing) ▪ Scientific discovery
Air	▪ Air quality* ▪ Air space*	**Preserving –** are services that keep options open for future human use.	▪ Accounting for uncertainty ▪ Genetic and species diversity for future use ▪ Protection of options
Human structures - can be in, on, or over land, water, or air. The rights to protect structures can be directly or indirectly connected to rights associated with land.	▪ Recreational, historical and cultural sites		

* Typically, these biodiversity elements can only be indirectly protected through MCAs. For example, if the MCA is for shellfish restoration, then protection of the water quality, quantity, and column may be possible because these elements are legitimately required to undertake and maintain the shellfish restoration efforts.

[1] Taken largely from: UNEP (2006) Marine and coastal ecosystems and human wellbeing: A synthesis report based on the findings of the Millennium Ecosystem Assessment. UNEP. 76pp

Having located a site, resources or ecosystem services that are prioritized for conservation, one should assess whether the actual area, habitat, resource or service is of sufficient size and condition to merit attention. This typically requires the assistance of an ecologist familiar with the region who can identify, for example, whether the site has been degraded (and its potential for restoration), whether it is representative of the ecosystems in the region prioritized for conservation or if target species have ample habitat to prosper in the proposed conservation area.

Practitioners should be strategic about maximizing the value of sites, resources or ecosystem services selected for MCAs in terms of present and future connectivity with other protected areas or establishing areas of sufficient size to maintain habitat for viable populations of the species that inhabit it. If the information regarding a site, resources or services is insufficient to determine their biological importance, further biological assessments may be necessary. When conducting further assessments, bear in mind the need for biological and socio-economic baselines for future monitoring.

Completing Boundary Surveys

At some point during the MCA process, practitioners may want to complete a boundary survey of the area that will be included within an MCA. While sub-step 1.1 Conservation Targets is the first opportunity to do so, sub-steps 1.2 Threats and Strategies, 1.3 Ownership, Management and Use, and 3.1 Conservation Commitments are also appropriate times to do so. Project-specific circumstances will dictate if and when the physical boundaries for an MCA project area need to be determined.

In sub-step 1.1 Conservation Targets, site-specific baseline inventories may have to be undertaken (see below). When this is the case, a boundary survey of the MCA project area may need to be conducted first to ensure the baseline inventory is completed in the correct area. In less formal settings, determining the boundaries of an MCA project may be as simple as sketching out an area on a map or identifying natural and cultural features on the landscape that form that perimeter of the project area. In more formal settings, in which property rights are being transferred, a boundary survey conducted by a certified land surveyor with experience in aquatic environments will likely be required.

Ocean and Coastal Issues: Property boundaries that lie waterward of the high water line are often unclear and confusing. As such, it is often important to survey the boundaries of an MCA site if a survey has not already been completed. Landowners, especially government agencies, may require boundary surveys. Boundary surveys for areas lying below the high water line can be complicated and more expensive than terrestrial surveys.

Completing Baseline Inventories

Prior to entering into an MCA, inventories of the flora and fauna at the site help document baseline biological conditions and inform the site's restoration and conservation planning.

- **Ocean and Coastal Issues:** Biological inventories in ocean and coastal areas require special knowledge, skills, and equipment. In particular, boats and SCUBA will likely be required, both of which can create additional liability concerns.

- **Fee-simple Issues:** While useful for planning purposes, baseline biological inventories are not always undertaken for MCA projects that result in a transfer of fee-simple ownership. Although baselines may not be needed for performance monitoring or adjusting incentives, it is still a good idea to establish baselines to enable future measurement of conservation impact and management effectiveness.

1.2 Threats and Strategies

After conservation targets have been determined, organizations should consider whether threats to the targets can be abated by an MCA. What are the major threats to biodiversity in the area and how difficult will it be to address them with an MCA? What conservation activities are required to reduce or eliminate the threats?

Identifying Threats

Clear methods and defined terms can help when identifying threats and determining which strategies are most needed to protect conservation targets at specific sites. The Nature Conservancy uses a systematic process called Conservation Action Planning to identify threats and strategies at sites (for more information, see: http://conserveonline.org/workspaces/cbdgateway/cap/). In addition, the World Conservation Union has developed standardized taxonomies of threats and actions that may be helpful to conservation organizations during site-specific planning activities (for more information, see: http://conservationmeasures.org/CMP/IUCN/). In general, threats to conservation targets come primarily in two forms: 1) current and future human activities; 2) current and future environmental conditions. Once the threats are determined for a particular area, practitioners must then determine if an MCA can help mitigate them.

Completing Boundary Surveys

In this sub-step, site-specific identification of human and environmental threats will have to be undertaken (see below). When this is the case, a boundary survey of the MCA project area may need to be conducted first (if not already completed) to ensure the threats identification is completed for the correct area. For more information on boundary surveys, see sub-step 1.1 Conservation Targets - Completing Boundary Surveys.

Human Threats

Ocean and coastal conservation targets can be negatively affected by a variety of human activities and structures, such as:

Figure 3: Dynamite Fishing, Tanzania

Photo courtesy CHICOP

- Air pollution
- Aquaculture
- Collection of plants, animals or substrate
- Dredging of substrate
- Fishing (such as dynamite fishing, see Figure 3)
- Hunting
- Navigation
- Public use and access
- Over-water structures
- Shoreline hardening and development
- Utility and energy facilities
- Water pollution

As per sub-step 1.6 Stakeholders, practitioners should take time to research the governing laws, legislatively prescribed "values" of relevant public agencies, and social norms of the area. Many activities considered by conservation organizations to be threats—however valid—may represent core agency and social values. Perceived attacks on agency and social values can cripple an MCA proposal from the start. When this is the case, conservation organizations should be careful to describe threats in terms of specific undesirable (but correctable) practices and conservation actions, such as developing and applying best management practices.

Environmental Threats

Formal Environmental Site Assessments (ESAs) can be used in areas targeted by MCAs that are potentially affected by pollution or contamination. ESAs may not be needed or desired under all circumstances, but project managers should be aware that pollution and contamination problems may exist and what they can do to address them. For example, Figure 4 shows a log storage site that may appear innocuous, but can also lead to an accumulation of wood debris in intertidal areas which creates habitat and pollution concerns.

ESAs, while usually not required by law, are undertaken on behalf of organizations acquiring interests in properties or resources. Whether an organization chooses to undertake an ESA depends on the amount of risk the organization is willing to assume as ESAs can reduce liabilities associated with sites. Organizations should consider consulting with an attorney to understand the applicable laws and regulations as well as how to mitigate risks.

Figure 4: Log Storage Site, Washington

Photo courtesy the Washington State Department of Natural Resources

Environmental Site Assessments undertaken prior to entering into MCAs determine the baseline environmental conditions of sites. The environmental conditions of a particular site will reveal whether the site is contaminated or polluted in some way that could create clean-up liability concerns under national or local laws, such as the federal Comprehensive Environmental Response, Cleanup, and Liability Act (CERCLA) in the United States.

Generally, formal ESAs conform to standards. Standards in the United States are set by the American Society for Testing and Materials (ASTM) and often take one of three forms: Transaction Screen, Phase 1, and/or Phase 2 (although several additional variations of ESAs exist). Depending on the location and historical use of the site and its surrounding, one or more ESAs may be needed.

Often, if a site has never been used for or exposed to industrial or other potentially contaminating uses and if the site is not adjacent to or near other sites that have been used for or exposed to industrial or other potentially contaminating uses, then a simple Transaction Screen may be all that is necessary. However, if either of these two circumstances exist, then a Phase 1 and Phase 2 ESA are usually necessary. The fundamental difference between a Phase 1 and a Phase 2 ESA is that the former typically relies on research into the use-history of the property, along with some on-site observations, while the latter often incorporates soil, sediment, water sampling, and laboratory analyses to identify the presence of specific contaminants and their relative concentrations. Numerous data sets may feed into ESAs, including biological inventories, sediment and water quality sampling, historical use information, title search information, and state/federal data on hazardous materials, contamination, and pollution.

In the United States, ASTM-certified environmental professionals should be consulted to make ESA need determinations and to complete ESAs as per ASTM standards if organizations want to use the innocent purchaser defense under CERCLA. The results of ESAs can affect the MCA transaction negotiations (i.e., indemnification warranties).

- **Ocean and Coastal Issues:** In marine waters, issues such as creosote pilings, wood debris, industrial and municipal outfalls, abandoned structures and vessels, contaminated sediments, and other types of foreign materials may be present and create liability. The fluid environment of ocean and coastal areas facilitates the transportation of contaminants. It is common to find water quality and sediment issues in urbanized ocean

and coastal areas. Given the potential for environmental concerns, some form of ESA is recommended for most MCA projects.

Can an MCA abate the threats?

MCAs can be used to manage, exclude, or restrict activities and structures at specific sites or related to specific species and resources. Some measure of management, exclusion or restriction may be needed to protect priority species, habitats, resources, and ecological processes from current and future harm. However, management, exclusion or restriction may not be needed when current and future uses and activities are compatible with the conservation targets identified for the site or when off-site threats are the primary cause of the site's vulnerability. If protection of the conservation targets does not require elimination or reduction of current or future activities, special management actions, or partial restriction of specific uses, then an MCA may not be necessary.

Management and exclusivity can be achieved by different means (such as leases, licenses, permits, purchase and sale agreements, management agreements, and concessions) depending on who owns, manages or uses the lands and resources (see sub-step 1.3 Ownership, Management and Use), and what laws and policies apply to their management. Several variables, which must be considered on a case-by-case basis, apply to these mechanisms, such as:

- Some are common while others are uncommon;
- Some provide a high level of protection while others provide minimal protection; and
- Some provide a great deal of legal certainty regarding the rights acquired or managed while others provide little certainty.

When determining if MCAs can abate threats in specific areas, practitioners should beware of institutional values, especially in areas where there are strong concerns regarding locking up public lands. This manifests itself both in legislation and public agency reluctance to draw the ire of certain constituencies and legislators. For these reasons, the need for direct management and exclusivity should be closely examined and—when determined necessary and possible—not celebrated too exuberantly. The preponderance of such events can build resistance and resentment toward future MCA projects.

When might an MCA be desired or required?

Conservation organizations may use MCAs to obtain or direct management control over sites, resources or ecosystem services (i.e., through the acquisition of proprietary rights, leasing or through management agreements) under several scenarios:

- **Organizational requirements:** Internal policies may require long-term protection.
- **Public and member expectations:** The general public and members of the conservation organization may expect that their support leads to guaranteed long-term protection of projects.
- **Funder requirements:** Funders may not provide project money if long-term protection is not guaranteed.

- **Landowner and legal requirements:** Laws and policies may require public landowners to lease or sell a site if it is "occupied" to the extent that other parties are fully or partially excluded from the site and/or public resources are used by private entities. Also, public and private landowners may want to rid themselves of liability or long-term management responsibilities associated with the site or project. If project success is in question, landowners may want conservation organizations to ensure the maintenance of the MCA site or the function of the project over the long-term.

Conservation activities that may trigger an MCA

Public or private landowners, managers and users may require organizations to enter into an MCA when conservation activities result in occupation of sites or inherently exclude (partially or fully) other potential users from sites. Such activities may include one or more of the following activities:

- Installing, restoring and maintaining structures (including habitat structures such as oyster reefs, see Figure 5);
- Preventing development;
- Preventing or managing extraction of resources;
- Restoring plants;
- Undertaking scientific research; and
- Preventing or managing other uses.

Figure 5: In-water Researchers, California

Photo courtesy Audubon California

The following activities, undertaken alone, are less likely to exclude other potential users from sites but may still require some form of MCA:

- Reintroducing animals; and
- Remediating contaminated areas.

The remaining activities, undertaken alone or together, are not likely to exclude other potential users of sites and thus not likely to require an MCA:

- Cleaning up debris;
- Educating and collaborating with adjacent landowners;
- Educating and outreach to the general public;
- Planning; and
- Scientific monitoring.

Excluding and managing activities at sites

Typical activities and structures that might be excluded or restricted from sites under an MCA include, but are not limited to:

- Aquaculture (Figure 6);
- Commercial uses;
- Navigation;
- Non-water dependent uses;
- Over-water structures;
- Public access;
- Recreation;
- Resource extraction;
- Shoreline development and armoring;
- Transportation infrastructure; and
- Utility lines.

Figure 6: Aquaculture Site

Photo courtesy The Nature Conservancy.

Some of the above listed activities and structures may be more difficult to restrict than others (e.g., navigation). Site-specific circumstances as well as applicable laws and policies will ultimately determine what activities can be excluded, how they can be excluded, and to what degree.

1.3 Ownership, Management and Use

Conservation organizations must now identify who holds the rights to the conservation targets or management authority over the threats and strategies that are associated with the MCA project. The targets, threats and strategies previously identified likely focus on one or more "assets" that can be acquired, managed or used via an MCA, including:

1) Physical areas of underwater land, the water column or air space; or
2) Resources such as plants or animals that are attached to the underwater land, floating in or on the water, or traversing the air.

Organizations must determine who (either people or entities) has legal rights or interests in the assets that need to be acquired, managed, use or provided (as with ecosystem services). These people or entities usually fall into one of three groups, or a combination of the groups: owners, managers and users. Collectively, these entities are "right-holders." They hold a "right" to the assets that conservation organizations are interested in. Rights that conservation organizations are often interested in include development rights, harvest rights and access rights, among others.

Given the specific legal framework under which MCAs will be entered into, organizations must consider which rights and interests can and must be acquired or managed to protect the targeted biodiversity elements or provide the targeted ecosystem services.

Fundamental Questions

It is important to note that different people or entities may have legal rights of ownership, management and use over the same sites, resources and ecosystem services. Determining who these people or entities are (through the methods identified below) and what their legal claims are is essential. Once determined, the fundamental questions to answer include:

- Is the site publicly or privately owned and managed?
- Who makes use of the resources, habitat area or ecosystem services, regardless of ownership or management?
- Is the site, resource or ecosystem service already being used by a public or private entity for a specific purpose which excludes others, including conservation interests?
- If the site, resource or ecosystem service is already in use, is there a specified time period of use, are there opportunities for multiple uses, or are there opportunities for partnering with the current user?
- Are informal, or customary, use and ownership rights involved?
- Does the owner, manager or user hold the legally recognized rights necessary to achieve the conservation objective? If not, can those rights be obtained, transferred or directed?
- Alternatively, is the de facto situation conducive to an MCA?

Rights to lands, resources and ecosystem services are among the most complicated yet important features of any potential MCA project. In many instances where the asset rights are unclear or insecure, MCA design has to pay particular attention to the balance between incentives and investment in enforcement capacity. If the right-holders cannot be determined for the site, resources, or ecosystem services, then an MCA likely cannot and should not be used as a conservation tool.

How to determine right-holders

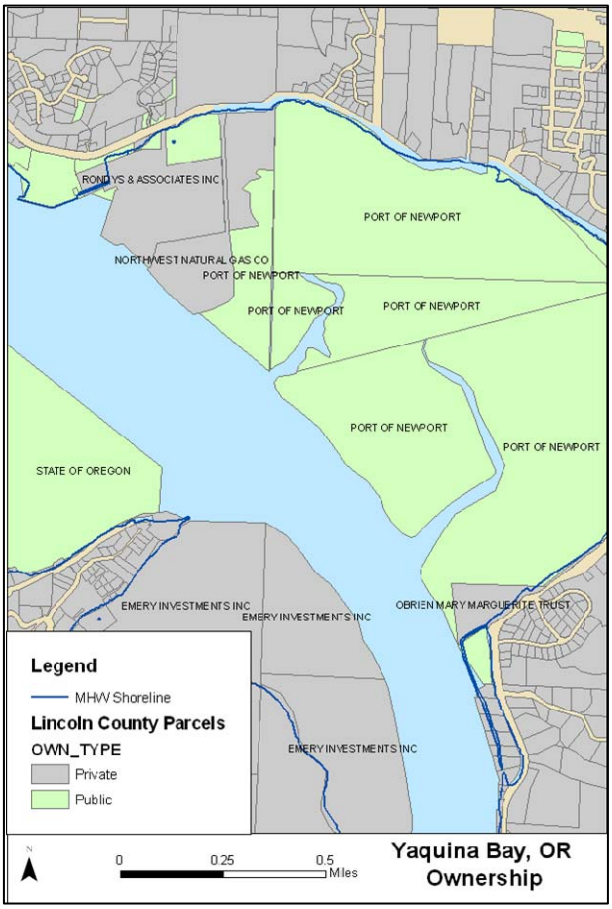
It may be possible and easiest to determine who the right-holders of sites, resources and ecosystem services are by consulting relevant national or local government agencies. The on-line MCA Toolkit provides agency information in Country Analyses, U.S. State Analyses and (U.S.) Contacts. When this approach is not viable, right-holders can often be determined through spatial data assessments, boundary surveys and title reports.

Spatial Data Assessments

A spatial data assessment collects spatial information about ownership, management and uses for specific geographic areas, normally so it can be mapped and interpreted visually. However, ownership boundaries, authorities, jurisdictions, and user rights are often in dispute and can be difficult to determine in ocean and coastal environments. An extensive primer on Shore and Sea Boundaries in the United States is available from the National Oceanic and Atmospheric Administration (NOAA) (see: www.nauticalcharts.noaa.gov/hsd/shalowitz.html). NOAA has also developed a summary manual for Marine Managed Areas: Best Practices for Boundary

Making (see: www.csc.noaa.gov/products/mb_handbook) -- the manual identifies many of the boundary issues that organizations may come across when working offshore.

Figure 7: Estuary Parcel Map, Oregon



Map courtesy The Nature Conservancy.

On occasion, spatial data depicting ownership, management and use of lands and resources lying within ocean and coastal waters is easily accessible and reliable (e.g., Oregon parcel data is available from local governments, see Figure 7). A review of spatial data availability for each ocean coast state in the United States is provided in the online MCA Toolkit (www.mcatoolkit.org) under U.S. State Maps. In some cases, however, spatial data can be difficult to access or unreliable. If the ownership, management and use information is not easily accessible or reliable, conservation organizations may have to assess and develop the information themselves. The information assessment and development can be undertaken for specific sites or whole regions, states, and countries.

A rigorous process to develop ownership, management and use data is presented in detail in the guidelines, *Marine Land Ownership & Leasing Spatial Database Template*, which is available under Resources/Publications and Presentations at: www.mcatoolkit.org. The template was designed to facilitate spatial data projects and to enable comparisons of progress among different state and country spatial databases. The template was used in 2006 to assess and develop spatial data for MCAs in Oregon and Massachusetts (both assessments are available online).

Boundary Surveys

Determining the physical location of the MCA project area during sub-step 1.3 (if not already completed) may aid in the assessment of spatial data (see above) or in the title report (see below). For more information on boundary surveys, see sub-step 1.1 Conservation Targets – Completing Boundary Surveys.

Title Reports

In formal settings where land and sea tenure is known and secure, obtaining and reviewing a title report for the land/sea and resources subject to an MCA is part of performing proper due diligence. The title report will determine: 1) who owns or leases the site; and 2) whether there are existing easements, rights, or other encumbrances over the site.

Ownership documents are normally filed at courthouses or statehouses. Leases and easements may be similarly filed, or they may be filed at the authorizing agency's office. The ownership, leasing, and easement documents should be examined to make sure there are no liens against the property and resources or any defect in the title. The product of a title search may be a title report, an attorney's certificate of title, a title abstract, or an insurance company's title commitment (title binder) that is used in the issuance of a title insurance policy.

- **Ocean and Coastal Issues:** Encumbrances on or defects in the title may affect negotiations in the deal. For intertidal and subtidal lands and resources, it is common to have restrictions related to tribal rights, the public trust doctrine, other leases and utility easements, boundary disputes, shipping and boating, and potential contamination.

- **Commodity Interests:** Besides liens, leases, and easements there are other partial interests in title that can affect the long term viability of a conservation project (or at least contribute to future conflicts). Not the least of these are mineral rights (e.g., oil & gas exploration) and shellfish harvesting rights (tribal or otherwise). The former can easily be included in a title report request. The latter will probably take additional research or collaboration with affected parties.

  In most cases dealing with public lands, conservation organizations will not be able to obtain mineral rights, even if the property is acquired in fee-simple. However, this can be mitigated by ensuring that the terms of the conservation plan clearly preclude on-site exploration and extraction. In less-than fee-simple acquisition, agencies may issue long term (but usually not perpetual) withdrawals from mineral exploration and related purposes.

- **Title Report Review:** Unless practitioners have substantial knowledge of title issues, surveying principles and the like, it is advisable to get an expert review of the title report for completeness and accuracy. Special focus should be on any "exceptions" noted in the title report—the potential implications of these exceptions may not always be self-evident. Special attention should also be paid to court rulings on private ownership and use of submerged lands and public trust lands for the specific parcel and for the area in general. In some limited cases courts have ruled in favor of state ownership even when private entities have a clear chain of title.

1.4 Laws and Policies

Analyzing laws and policies that apply to ocean and coastal management in the area of a proposed MCA will inform organizations of the types of formal mechanisms that may be available to them for their project purposes. The basis of an MCA project is an ongoing

economic incentive to protect biodiversity. While MCAs can be both formal and informal, it is wise to formalize long-term MCAs with a legal document. Formal MCAs can be developed using a variety of legal tools, ranging from private contracts to public leases.

A law and policy analysis should reveal the available legal mechanisms that are most appropriate and enforceable for a given context. Preferably, a lawyer or policy analyst (from the country where the project will be implemented) assists with the assessment of legal tools available for MCAs. An analysis of international treaties and agreements (such as signatory status relating to Ramsar and the Convention of Biological Diversity), constitutional provisions, federal, state, and local statutory laws and regulations, management agency policies and practices (such as National Biodiversity Strategic Action Plans, National Poverty Reduction Strategies, and Millennium Development Goals), public rights (associated with the public trust doctrine and other common law rights), and case laws may be necessary. In addition, interviews with management agency staff will help clarify how the laws and policies have been implemented and interpreted in the field. Flexibility and creativity will likely be necessary during the law and policy analysis, as legal mechanisms intended for a different purpose may need to be adapted for conservation objectives.

While each country and location will demand its own legal and policy analysis with its own set of specific questions, examples of key questions are found in the Table 4 below.

Existing Analyses

Our current understanding of relevant laws and policies for a limited set of countries and U.S. ocean coast states can be accessed through the online MCA Toolkit (www.mcatoolkit.org) in the Country Analyses and U.S. State Analyses. The analyses generally take two forms: 1) In-depth Analyses, and 2) Initial Analyses. The in-depth analyses provide greater information about the potential for MCAs than the initial analyses. In either case, conservation organizations can use these analyses as starting points for their own law and policy investigations.

Policy versus Perception

While undertaking law and policy analyses, conservation organizations should be aware that it is often assumed in many public and private arenas that lands and resources lying within ocean and coastal waters cannot be acquired or managed by any entity other than the government. Frequently, this assumption is incorrect. As such, any analysis undertaken should distinguish between actual law and policy barriers and perceived institutional barriers to MCAs. If law and policy barriers do not exist, then the management agencies, land and resource owners and users, and the political climate must be conducive for an MCA to go forward.

Table 4: Key Law and Policy Questions

What are the local, state, and federal agencies responsible for the management and conservation of lands, resources and ecosystem services lying below and immediately adjacent to (on the upland side) the high water line of the ocean? Lands, resources and ecosystem services of immediate concern are related to fish and wildlife, water quality, coastal parks and beaches, shoreline development, coastal zone management, underwater (intertidal and subtidal) lands, and aquaculture management.

1. What are the relevant international treaties and agreements and federal/state/local laws, rules, and policies regarding the above?
2. Is the rule of law reliable in these jurisdictions reliable (e.g., effective court system)?
3. What is the relationship between formal and informal legal systems?
4. How strong are the available legal options for protection?
5. Can existing laws be adapted to achieve protection objectives?
6. What are the geographic jurisdictional boundaries for the above?
7. What are the important terms and definitions relevant to the above areas and jurisdictions?

Can private entities acquire or otherwise direct legal rights — through formal agreements such as concessions, contracts, easements, leases, licenses, permits, or purchase and sale/gift/exchange agreements — to protect, manage, conserve, or restore lands, resources and ecosystem services lying below and immediately adjacent to (on the upland side) the high water line of the ocean?

1. Are there existing examples of the above (such as non-profit ownership of inter-tidal areas)?
2. Are there examples of private entities acquiring or directing similar rights for non-conservation purposes that might serve as jumping off points for conservation purposes (such as community ownership of fishing concessions)?
3. If the above is possible, what are the relevant authorizing agencies, laws, and processes?
4. What is the likely effect of supportive policies (e.g., government support for indigenous land rights) and of unfavorable policies (e.g., policies that support oil/mining concessions) on an MCA?

What are the relevant land and sea ownership, management and user rights and issues to be aware of related to the above questions?

1. Are ownership, management and user rights legally enforceable?
2. Do overlapping rights conflict with biodiversity objectives (e.g., subsurface mineral rights)?
3. What rights and responsibilities do public and private entities hold or maintain (via the public trust doctrine, federal/state laws and regulations, and case law) in publicly-owned lands and resources?
4. What rights and responsibilities do public and private entities hold or maintain (via the public trust doctrine, federal/state laws and regulations, and case law) in privately-owned lands and resources?
5. Can private ownership, management or use of lands and resources partially or fully exclude other uses from the site to the degree and duration necessary?

Probable Acquisition

In general, current analyses have shown that if the targeted lands, resources and associated ecosystem services are currently under private ownership, then private acquisition of fee-simple and less-than fee-simple ownership interests is likely possible. If, however, the lands, resources and associated ecosystem services are currently under public ownership, then in most circumstances private acquisition of fee-simple rights per se is likely not achievable. However, in some unique situations, exchanges or outright acquisition of fee-simple ownership of publicly-owned lands and resources are feasible. If not, conservation organizations can consider some lesser form of MCA. Under all circumstances, relevant laws and policies, the public trust doctrine, and case law should be evaluated to determine the rights which can and cannot be acquired or managed.

Public Rights

In many circumstances, even when private entities own fee-simple interests in lands and resources below the high tide line, the public retains certain rights to access or use the areas. This represents a significant difference between fee-simple ownership of uplands and fee-simple ownership of lands and resources lying below the high tide line in many countries. The rights held by the public for lands and resources lying below the high tide line are often associated with common law (such as the public trust doctrine in the United States) and may be associated with cultural, community, and other historical rights in other countries. These public rights need to be considered as they may have a bearing on the rationale for conserving the lands and resources as well as on the ability to do so.

1.5 Organizational Capacity

After determining that applicable laws and policies are supportive of MCAs, an assessment should be conducted to determine if there are one or more local, national or international conservation organizations that are willing and able to assume lead responsibilities for engaging right-holders and designing and implementing an MCA in the proposed project area.

Why would organizations be MCA leads?

In many cases, the management and conservation of lands, resources and ecosystem services associated with ocean and coastal waters can be undertaken by either public or private entities. While private conservation organizations can always advocate that public regulatory agencies and landowners protect and better manage ocean and coastal sites, there may be circumstances when private organizations want to become directly involved. MCAs can help achieve this direct involvement.

Organizations may want become leads for MCAs for reasons such as:

- The conservation targets are rare, sensitive, or critical to the organization's success;
- The organization has invested or will invest substantial financial and staff resources; or
- The protection needed is long-term and other entities may not be reliable in the future.

What organizations should be MCA leads?

Some conservation organizations are not accustomed to acquiring or directing long-term responsibilities for the care of lands, resources or ecosystem services, particularly those associated with ocean and coastal waters. Depending on the specific conservation target, MCAs may require expertise that many organizations do not have. In addition, organizations must be able to estimate costs and secure funding for the initial MCA and subsequent, long-term conservation activities (see Phase 4: Implementation). The funding must be sufficient to cover planning, permitting, material resources, staffing and development of expertise. In addition to these tangible resource needs, conservation organizations will need patience in order to develop and implement MCAs which may set precedents or be controversial.

A capable lead conservation organization for MCAs should possess, or be able to obtain, the following qualities:

- Shared objectives with supporting conservation organizations;
- Good relationships with right-holders and the community or a track record of good relationships in similar circumstances;
- Expected long-term organizational stability; and
- Financial and technical capacity in anticipated activities (e.g., community engagement, restoration, species management, patrolling).

Potential lead organizations may need additional resources or expertise to fully implement an MCA project. When this is the case, the availability of the additional needs should also be assessed. Once a lead conservation organization is identified, stakeholders and their issues should be assessed next.

1.6 Stakeholders

The viability of an MCA project depends on the positions of a wide range of stakeholders. As such, all potential MCA projects require a clear identification of key stakeholders and their issues. Stakeholders include any group or individual who may directly or indirectly affect or be affected by, either positively or negatively, the MCA. In a simplified scenario, direct stakeholders are those who will be parties to the agreement while indirect stakeholders are those who will not be parties to the agreement, but may be affected by or who may affect the outcome of the agreement - either by contributing to or hindering its success. In reality, some stakeholders may not fall neatly into one of these two groups - some may fall within both groups and others may fall outside both groups.

A simple stakeholder and conflict analysis needs to answer two fundamental questions:

1) Who needs to be engaged?
2) What existing and potential conflicts will need to be addressed?

Typical MCA project stakeholders include:

Figure 8: Stakeholder Meeting, Ecuador

Photo courtesy Conservation International

- Academic institutions;
- Business groups and natural resource companies (e.g., fishing, mining, oil companies);
- Community and/or indigenous groups living in or near the site (e.g., a woman's group in Ecuador, Figure 8);
- Cultural, social, and religious organizations;
- Government agencies, such as those responsible for regulations, protected areas, natural resources (e.g., fishing, mining, energy), or public services;
- Landowners in or near the site;
- Multi and bi-lateral funders/donors;
- Non-governmental organizations (local, national or international), such as those working in community development, conservation, human rights, and indigenous rights; and
- Subsistence, recreational, and commercial users of the area, resources, or ecosystem services.

Direct Stakeholders

Once stakeholders are identified, they can be grouped into those that will be directly involved with the MCA (project partners) and those that can indirectly impact or be impacted by the agreement. Often, those who will be directly involved in the agreement are the right-holders -- the owners, managers or users of the area, resources or ecosystem services. Direct stakeholders should understand the basics of the MCA strategy to avoid philosophical misunderstandings and procedural barriers as projects progress. Bringing all partners into conceptual agreement with the strategy and into a common understanding of the long-term consequences is essential.

For stakeholders who will be involved in the agreement, a necessary characteristic to assess is whether they can be a reliable party to an agreement.

- **Right-holders:** When right-holders are potential parties to an MCA, the ability of right-holders to be effective conservation partners should be assessed. Right-holder characteristics amenable to direct partnership on MCAs include:
  - Interest in engaging in an agreement;
  - Interest in conservation;
  - Tradition (cultural and religious factors) in resource management;
  - Effective decision-making structures;
  - Capacity to enforce rights; and
  - Potential capacity to perform conservation actions.

- **Organizations:** If direct stakeholders are communities, government agencies, or other organizations, the quality of their representation, their internal decision-making processes, and stability will be important factors. Questions to ask in this regard might include:

  - Has a system of representation and decision-making been in place for a number of years, or is it fairly recent?
  - Does decision-making appear orderly or sporadic and inconsistent?
  - Does leadership change often due to fundamental issues that cannot be resolved within the stakeholder group?
  - Is the social structure stable (for example, a rural community of colonists composed of various ethnic or religious groups that recently settled in the same area)?
  - Is the government unstable or unable to maintain consistent legislation that would affect an MCA?

- **Individuals:** If direct stakeholders are individuals, their reputation from other dealings may offer clues about their reliability.

In all cases, if prospective parties to an agreement do not appear reliable, it is an indication that a successful, long-term MCA may be difficult to achieve. If conservation at a site is extremely important and local direct stakeholders are not sufficiently organized or reliable to establish an agreement, a decision may be made to assist in capacity building.

Indirect Stakeholders

For stakeholders who will not be directly involved in an agreement, but may be negatively impacted by it, an assessment of whether the impacts can be managed responsibly is necessary. For those stakeholders who may negatively impact the agreement, specific strategies must be in place to ensure that their issues are understood and managed. In some cases, these indirect stakeholders may include various government agencies. As such, it is essential to understand how relevant levels of government operate and which agencies must be engaged. Indirect stakeholders may also include NGOs, activist organizations, trade groups, or others with social, economic, or environmental issues in the area. They too will need to be understood and engaged as necessary.

Regulatory Agencies

Regulatory agencies deserve special attention as they may be direct and indirect stakeholders. In either case, lead conservation organizations may have to request regulatory approval before MCA projects can proceed. As such, consulting with regulatory agencies early in the process is an important step. Lead conservation organizations must know whether regulatory permits will be needed, if the permits can be obtained within needed time frames, and what conditions may be imposed on projects as part of the permit requirements. These permit conditions will often become points of negotiation with the right-holders as well.

- **Ocean and Coastal Issues:** If in-water work (such as oyster restoration, eelgrass planting, or shoreline softening) is planned as part of the project, then several regulatory permits may be needed (such as shoreline development permits, 401 permits, and dredge and fill permits in the United States). Early contact with regulatory agencies will likely expedite project approval in later stages. The appropriate regulatory agency can be difficult to determine. The MCA Toolkit (www.mcatoolkit.org) provides Country Analyses and U.S. State Analyses that may help determine agency contacts.

- **Lease Issues:** When prospective MCA projects include leases of publicly-owned land, it is common for the leasing agency and regulatory agencies to be different. As such, multiple agencies will likely be involved in leasing and regulatory permitting processes.

Stakeholder Patience

MCA projects can take more time than similar upland projects due to real and perceived policy issues. If, as in most cases, the MCA project is a relatively new concept for the geography and entities involved, then time and patience will be required on everyone's behalf, including direct and indirect stakeholders, to allow issues to be resolved. For projects that set precedents, it may not be realistic to promise deliverables to partners or funders on a hard and fast schedule. A flexible, adaptive approach may be more successful.

Stakeholder Assessment Meeting

The basic steps for a stakeholder assessment include:

1) Organizing a small meeting with close partners (staff from the lead conservation organization, partner organizations, the community and applicable government agencies). This event should be at most a day long, attended by no more than 10-12 people. Products of this meeting should include:
   - A list of key stakeholders relevant to the area, resources or ecosystem services;
   - A map of the relationships between those stakeholders; and
   - A map of the conflicts between stakeholders (it is important to identify formal and informal processes and leaders and include them in relationship and conflict maps).

   Several participatory rural appraisal tools are available for undertaking these types of assessments in developing countries.
2) Following up with separate meetings (when needed) that include only government or community members, especially when conflicts or informal decision-making systems exist.

3) Assessing and developing resolution or management options for each potential conflict identified during the "conflict mapping." Organizations should consider what is needed to resolve the conflict and how this might happen (e.g., traditional informal resolution versus formal approaches). In some cases conflicts may be intractable, in which case an MCA may not be feasible. The main product of this effort is a short document describing the conflicts found and strategies that could be used to address them.

Stakeholder information will provide a clearer picture of who is affected by or will affect the MCA and what the conflicts are to resolve or manage. The product at the end of this process is a strategy defining how to work with each stakeholder.

1.7 Costs and Financing

A principle criterion for determining if an MCA is a viable option at a given site is cost and the ability to finance that cost over the long-term.

- Is the cost of an MCA affordable in terms of the incentives required and project financing prospects?
- How do the costs of an MCA at a particular site compare to other possible conservation approaches at the same site and to other MCA sites of similar ecological importance?
- Is there current funding available or are there donors willing to cover the costs?

Assessments at this phase of the feasibility analysis provide only an initial indication of costs and financing options, as negotiations and long-term management and financial planning will ultimately determine all MCA project costs. An assessment of the right-holders' alternatives for the land, resources or ecosystem services will greatly inform the conservation organization's negotiating position and will help determine whether an MCA is likely to be affordable in the first place. Factors that will affect negotiations may reach beyond a cost assessment and include the ability of a conservation group to coordinate other players to assist in developing an incentive package that meets stakeholder objectives. In the end though, conservation organizations must recognize that in some situations, the opportunity cost of conservation may simply be too high, or funding prospects too weak, to make an MCA affordable. In these instances, other strategies will be required. Nevertheless, regardless of the strategy selected, an understanding of the opportunity costs and incentives driving biodiversity loss will benefit the design of appropriate interventions.

Assuming financial needs related to the feasibility analysis for an MCA project are met, cost estimates should include, at a minimum:

- Costs for the "value of the MCA" itself;
- Costs for Phase 2: Engagement;
- Costs for Phase 3: Building the Agreement; and
- Costs for Phase 4: Implementation.

MCA Costs

A primer on direct costs associated with MCAs is found in Appendix 2. For practitioners unfamiliar with MCA costing, the primer should be consulted at this time. In summary, direct costs associated with MCAs can include one-time and reoccurring payments for items such as contracts, leases, land acquisition fees, and community benefits to offset opportunity costs (see below). These direct costs can be determined by appraisals, socioeconomic analyses, policy guidelines, fair-market value and, ultimately, negotiations. In many situations practitioners tend

to focus on project costs of MCAs themselves when in fact the most significant costs will be incurred during Phase 4: Implementation.

- **Opportunity Costs:** A critical feature of MCA costs that practitioners should keep in mind is the opportunity cost of foregone resource use. An important aspect of the opportunity cost of conservation reflects the value of what right-holders give up by not utilizing their land, resources and ecosystem services under the business-as-usual scenario. This is the balance of:

  - The income that would be derived from uses such as destructive and unsustainable commercial fishing; and
  - The costs, such as reduced artisanal fisheries and tourism, degraded water quality and loss of culturally significant resources, which would be imposed by destructive uses.

  The sum of foregone income from the land, resource or ecosystem service use minus the sum of avoided environmental and social costs is the opportunity cost of foregone resource use. In some cases, the right-holders may not recognize the environmental and social costs of the land, resource or ecosystem service use, resulting in a difference between actual and perceived opportunity cost. During Phase 2: Engagement, the MCA lead can try to enhance the right-holders' understanding of environmental and social costs to reduce this difference. In any case, to secure an MCA, the benefit package must be designed to offset the opportunity cost that right-holders believe they incur.

Costs for Phase 2: Engagement

Project costs related to initial right-holder engagement can be relatively low and straight-forward to determine in more developed countries where infrastructure, transportation, and communication systems are good. The minimal costs of setting up and holding one or more meetings are relatively easy to estimate. In less developed countries, however, right-holder engagement can be substantial and less straight-forward. Arranging and holding in-person meetings with right-holders that are represented by several people or communities, may only speak local languages and are remotely located can be logistically difficult and expensive. Costs for interpreters, transportation (planes or boats), cultural or social traditions (i.e., gifts) should all be considered. A review of the engagement process should be undertaken and considered in terms of the specific MCA project being contemplated to estimate costs associated with this phase.

Engagement activities that will have costs associated with them include, but are not limited to:

- Selecting and potentially paying for engagement team members;
- Developing the engagement plan;
- Exchanging ideas with right-holders; and
- Verifying the agreement.

Costs for Phase 3: Agreement Design

Costs for Phase 3: Agreement Design are an extension and expansion of the engagement costs (i.e., meeting logistics and materials, travel, additional studies) since additional stakeholders and process will be involved. The agreement design costs may also include legal and other professional fees associated with formal contract negotiations, documentation and registration. A review of Phase 3 should be undertaken and considered in terms of the specific MCA project being contemplated to estimate costs associated with this phase.

Agreement design elements that will have costs associated with them include, but are not limited to:

- Documentation
- Conservation commitments
- Recipient benefits
- Compliance
- Sanctions
- Regulatory permits
- Final actions

Costs for Phase 4: Implementation

Costs for Phase 4: Implementation can be significant depending on the role of the lead conservation organization and status (including vulnerability) of the conservation targets. While long-term management and financial planning for the MCA project will likely be required to best understand implementation costs, an initial estimate during the feasibility analysis phase is needed to get an idea of what to expect in the future. Financial management tools are available to assist in this effort, such as the MPA Financial Management Tool (see: http://ccif.digitalclouds.net/costmodel/) and the Property Analysis Record 3 (PAR3) (see: www.cnlm.org/cms/). A review of potential implementation activities should be undertaken and considered in terms of the specific MCA project being contemplated to estimate costs associated with this phase.

Implementation activities that will have costs associated with them include, but are not limited to:

- Administration
- Management Planning
- Outreach
- Science
- Enforcement
- Public Uses
- Livelihoods
- Habitat Management
- Maintenance
- Funding

Funding Considerations

Conservation organizations must eventually ensure funding is available for all aspects of MCA projects. Options to consider include bilateral and multilateral institutions, corporate and private donors, foundations, aid agencies, and payments for ecosystem services. Aid and development institutions tend to make commitments with short time frames, foundations may vary from one to many years, and corporations follow in this regard. One solution is to continuously fund raise, but another more robust solution is to create a trust fund with enough money to endow the funding needs of the MCA project. As a rule of thumb, endowments should be twenty times the size of the annual funding need, which may present a fundraising challenge.

- **Grant Agreements:** Unless conservation organizations will use cash reserves or take out internal organizational loans, additional grant agreements may be needed for MCA projects. Grant agreements should clearly identify the iterative nature of MCAs, the uncertain nature of intertidal and subtidal projects, and include contingency plans for prolonged negotiations.

- **Ocean and Coastal Issues:** Many funders do not readily understand the MCA concept. Also, many grant criteria do not directly include MCA-like transactions related to intertidal or subtidal lands, resources and ecosystem services. As such, conservation organizations may have to actively reach out to potential funders to help them understand the strategy and to help them understand how funder goals will be met.

- **Lease Issues:** If the lands, resources or ecosystem services will be leased from a public entity, conservation organizations may be required to ensure they have the financial means to carry out the project. Also, funders may not understand that public assets need to be encumbered (or leased) to ensure their long-term protection. As such, project proponents may have to actively reach out to potential funders to help them understand the need for leasing.

1.8 Reporting

The key output of a project-specific feasibility analysis should be a narrative report. Table 5 below provides an example of how the report can be structured. Typically, the feasibility analysis report should be no longer than 20 pages in length with supporting maps and appendices. The report should include a map depicting the area where the project will take place, identifying uses, locations of the threats, tenure and conflicts. The feasibility analysis report and table will support an informed judgment regarding the feasibility of the MCA project. Few projects will have entirely favorable conditions. Likewise, few projects will have a single criterion that is the decisive factor. Instead, it is the balance of factors, placed in the context of competing alternatives (in terms of other approaches and as well as other sites), that will yield a concluding recommendation as to the feasibility of an MCA in a particular setting.

Table 5: Sample Feasibility Analysis Report Outline

Phase 1: Feasibility Analysis Step	Result	Favorable	Not Favorable
1. Conservation targets	Established?		
2. Threats and strategies	Determined?		
3. Ownership, management and use	Known and assignable?		
4. Laws and policies	Supportive of MCAs?		
5. Organizational capacity	Sufficient to implement?		
6. Stakeholders and issues	Identified?		
7. Costs and financing	Assessed?		

- **Result:** The findings of the feasibility analysis for each of the criterion should be summarized in the table's results column. The objective is to have a quick reference of what was found (e.g., for conservation targets, threats and strategies -- high, medium or low; for ownership and rights -- private property, communal rights or open access; for stakeholders -- the list of the key actors and conflicts encountered).

- **Favorable or Not Favorable:** A simple yes or no, indicating whether each criterion was favorable and conducive to promoting an MCA or not favorable, should be indicated on the table for quick reference.

Phase 2: Engagement

In the engagement phase of an MCA project, the lead conservation organization leads a team that discusses the project concept with the right-holders of the lands, resources or ecosystem services that are targeted for conservation. This phase generally takes one to six months and sets the stage and ground rules for Phase 3 in which the lead conservation organization designs and negotiates the MCA.

The purpose of the engagement phase is to present what an MCA is and how it works to the right-holders, who are likely direct stakeholders and potential counterparts in the project. During some projects, it may be useful to arrange trips or exchange visits with right-holders to show the negative impacts of resource destruction in degraded areas or the benefits of MCAs at successful project sites. This may be particularly useful in remote areas in which such impacts have yet to be felt.

The sub-steps for engagement are mostly in chronological order, although several may already be completed or easy to complete if the lead conservation organization and the right-holders are already working together on other initiatives. If successful, engagement ends with a mutual decision to proceed in the formulation of specific agreement terms.

2.1 Select Team

Selecting the team responsible for engaging right-holders in an MCA project is a critical first step in establishing and maintaining a productive long-term relationship with the right-holders and community. The team, which will be led by the lead conservation organization identified in 1.5 Organizational Capacity, will be interacting with right-holders throughout the course of the project. The engagement team is the public face of the MCA project and deals with the day-to-day activities of developing the project.

When there are strong local partners present in the area, one or more of these local organizations may be able to serve as the lead conservation organization and make up or organize the majority of the engagement team. If, however, there are few local partners in the area, a national or international organization may need to take direct responsibility for designing and implementing the MCA and, as such, acting as the lead conservation organization and lead for the engagement team.

Since few lead conservation organizations will have all of the capacities needed to execute all the steps within the MCA field guide, the lead will likely have to partner with other organizations or entities to recruit engagement team members. Ideally the engagement team already has solid relationships with the right-holders, or must be able to build such relationships. The team must understand the power structures and formal and informal decision-making systems of the right-holders. It is crucial that the make-up of the team remains as constant as possible throughout the duration of the MCA so relationships with the right-holders and community remain strong.

2.2 Develop Plan

After the lead conservation organization for the MCA project has assembled the engagement team, the team must draft a plan to engage right-holders and other direct stakeholders. The engagement plan should be no more than five pages and include:

- **Project Description:** A brief description of the proposed MCA project, to include a clear, easily communicated articulation of conservation outcomes. This description will be used by the engagement team to ensure all team members are communicating the same messages regarding the MCA project.

- **Right-holders and other Stakeholders:** The representative groups that the engagement team needs to meet with (this could range from a small number of right-holders and leaders to the entire community, as appropriate). The right-holders and other direct stakeholder information should come from sub-steps 1.3 Ownership, Management and Use and 1.6 Stakeholders.

- **Conservation Actions:** Initial proposed conservation actions to address threats, subject to revision during the engagement and design process. The proposed actions will give right-holders and other direct stakeholders an initial idea of what the expectations may be -- whether activities may have to stop, change, improve or be undertaken by another party.

- **Communications:** Formal and informal communication systems that will be used to exchange information and perspectives. Identified communication systems must take into account the capabilities and preferences of targeted audiences as well as the amount of time available for responses. To the extent possible, during initial engagement activities, more personal, direct communications (such as in-person and telephone) should be used over less personal, indirect communications (such as mail and email).

- **Meeting Work Plan:** Timeline, number and schedule of meetings required to present the MCA idea. The meetings information will serve as the engagement team's work plan.

- **Materials:** Materials required for presenting the MCA idea (such as maps, pictures and lists).

2.3 Exchange Ideas

During this sub-step in the MCA process, the engagement team meets with right-holders and other relevant direct stakeholders to exchange ideas about the possible MCA. Ideally the first meeting involves only a small number of essential people. Subsequent meetings can include additional people as necessary, but the first meeting should be kept small as a means to keep the discussion informal and flexible, but still on point. Depending on the engagement team's historical working relationship with the right-holders and other direct stakeholders, this initial discussion may need to proceed slowly and with sensitivity (see Example 1 below).

The engagement team should explain to right-holders and other stakeholders who the team is, the general conservation outcome they are after, and the initial idea for the MCA mechanism (i.e., an illustration of an MCA elsewhere). Presentation of the idea should be simple and well articulated so everyone in the discussion understands the concept. Initial discussions should include learning about the right-holders' and stakeholders' issues, goals, activities, interests, and their initial impression about the proposed agreement.

Thoughts should also be exchanged about the possibility of an initial, short-term "trial" agreement versus a longer-term, possibly perpetual agreement. Short-term agreements allow both parties to evaluate and refine the agreement before entering into a long-term agreement. While long-term agreements ensure that investments are protected. If a long-term agreement is desired, the engagement team, right-holders and other stakeholders can work together to help "sell" the agreement to potential funders.

- **Ocean and Coastal Issues:** Private right-holders of lands, resources and ecosystem services associated with ocean and coastal waters may not fully realize what rights they possess. Oftentimes private rights within ocean and coastal waters are held in connection with adjacent uplands, where the upland right-holders' use and occupancy has focused. Also, rights to such lands, resources and services may have been acquired for long-past activities (such as shellfish harvesting) which are no longer in operation. With the lands, resources and services left fallow, private right-holders may have forgotten about their existence and not realize their potential financial or ecological values. Lastly, oftentimes boundaries in ocean and coastal waters may not be clear. While public or private entities may believe they possess rights over certain lands, resources and services, they may not be able to provide proof of that possession or to determine where it is located on the seascape.

- **Fee-simple Issues:** Lands, resources and ecosystem services associated with ocean and coastal waters that are owned by public agencies are rarely for sale in fee-simple. While this is not always the case, fee-simple purchases will likely be from existing private owners only.

- **Lease Issues:** If the right-holder is a government agency with leasing authority, this is an appropriate time to obtain the agency-specific lease applications, procedures, requirements, and standardized/template lease documents (if they exist). The agency may not have previously considered using its leasing authority for conservation purposes so a careful approach is recommended.

Example 1: Presenting the MCA concept to a local community

Example introductory conversation during initial community stakeholder meeting

- *This is a new idea for a conservation area; it is based on a formal agreement between a community and conservation investors who value intact coral reefs and human livelihoods within the surrounding communities – it is called a Marine Conservation Agreement.*
- *This sort of agreement depends on a community commitment to maintaining their corals intact.*
- *The choice of whether to work on an agreement with us is entirely up to the community, but we only want to work with communities who have a serious collective interest and ability to organize and unite to*

protect their customary lands into the future.

- *We know that recently there have been many changes to the everyday lives of many people within the community* (e.g., the necessity of education and access to modern medical care). *These require cash, which has previously been available only from commercial fishing interests.*
- *This MCA concept can help interested communities access education and medical care as well as maintain their corals. Again, the idea is a formal agreement to maintain corals – communities benefit from both intact corals themselves and our support for their development priorities* (perhaps give examples like scholarships).

A further explanation of the concept and benefits of an MCA

- *There are many values from maintaining intact corals on customary land, including fish, cultural significance, and tourism. These benefits are protected under an MCA and remain available to the children and grandchildren of the customary owners.*
- *In an MCA, in addition to these benefits, if a community commits to and maintains a strong community conservation area, they receive benefits from us. These benefits need to be discussed, but might include:*
  - *Scholarships for school fees and other educational needs;*
  - *Assistance in accompanying family members on medical evacuations;*
  - *Help protecting areas from commercial fishermen; and*
  - *A relationship with the lead conservation organization, where we can help communities link their development ideas with other funders/NGOs working on development projects.*
- *The community will retain ownership of their rights.*
- *The mechanism works by communities designing, with our help, a conservation area, and then entering into a partnership to raise funds to support their choice.*

Explaining characteristics of an attractive MCA

- *Because the partnership raises money to support the MCA, the more attractive the conservation area, the more likely that we will receive funding and that the funding will be sustainable in the long term. We think that if the community makes a strong commitment to protecting a significant portion of the coral areas, there is an excellent chance that the agreement will be funded.*
- *It is important that no land or sea tenure conflicts exist. The conservation area should have clearly defined boundaries that can be registered with the authorities as clearly belonging to the community.*
- *Areas that are large, rich with fish and plants, and as intact as possible are attractive to donors.* (The engagement team can help them pick areas that will be attractive if they want.)
- *While it is important to design an attractive area, the most important thing is that the community commits to protect those areas. The lead conservation organization will help the community protect the area under an agreement, but if the area does not receive the protection it needs, the community will not continue to receive support. It is therefore important that the community designs something that is capable of being implemented, as opposed to an area that someone in the community is going to commercially harvest in the next five years.*

NOTE: A mapping exercise might be enjoyable and useful at this point; if not, that can begin during later visits. The first meeting was to present and discuss the MCA idea. It may be useful to leave behind a calendar of next steps, as well as anything else that may require community consideration (e.g., noting that land and sea tenure stays with them, etc.). It is often also useful to leave behind a flip chart or large piece of paper with the key project characteristics written on it, so they can meet, plan and design in between visits by the engagement team.

MCA Mechanism and Process

- The community and the engagement team design and designate a conservation area, its rules, and how it will be managed. The engagement team helps them make it attractive to donors, resolve conflicts, provide technical support (e.g., GIS), but this is at the discretion of the community. This can be as collaborative as the community wants, but if the area is not attractive, it will be difficult to get funding, so it is useful for the community to work with the engagement team.
- The benefits the community receives will be based on the characteristics of the area that the

community is willing to designate as a protected area. Again, the agreement has to be attractive to potential funders, in terms of its area, the community commitment, and the cost.
- The engagement team and the communities must design a clear agreement, including parameters such as the area, rules, benefits, and verification of commitment.
- A trial period of implementation, where both parties sign the agreement for one or two years may be appropriate. Under this scenario, there is no long–term commitment from either party during the design or the first year of implementation. If, after the first year, both parties are satisfied with the agreement and the agreement is attractive to funders, a long-term agreement can then be signed.

Next Steps
- Subsequent meetings may be scheduled depending on how the first meeting goes. If the community wants time to think, the engagement team can return after an agreed-upon time period. If the community is prepared to continue at that time, they can start determining where the conservation area will be before the next meeting with the engagement team.
- It may be useful for the engagement team to state, in closing the initial meeting, that there is no obligation at this point, but if the community is interested, the engagement team believes that it can help them create a conservation area that will provide real benefits for them and their children.

Letter of Intent

Sending a formal Letter of Intent (LOI), which describes the proposed MCA project, to right-holders is optional. Some organizations skip this step, but others send the LOI because it can be useful for sketching out basic deal points before much time and energy is invested in negotiating documents. LOIs should always be worded carefully to ensure they are "non-binding." The engagement team will have to determine whether an LOI is appropriate given the social, cultural and legal contexts of the MCA and, if so, when best to send it (i.e., before or after the initial engagement meeting).

U.S. Uniform Relocation Act Notice

In the United States, if there is any chance that federal funds will be used in the MCA deal (either in the deed-in or in the later deed-out), federal law requires that a Uniform Relocation Act (URA) Notice be sent to the owner prior to discussing property value or financial offers (i.e., before a Letter of Intent (LOI) is sent). As such, under these circumstances property values and financial offers should not be discussed during any meetings until the URA Notice has been sent.

- **Fee-simple Issues:** URA notices may not be necessary for acquisitions of public property. However, to be safe, it is wise to send the URA Notice any time federal funds are being used. If there are good reasons for not doing so, then an attorney should be consulted.

- **Lease Issues:** URA notices may not be necessary for leases less than 50 years in duration. However, to be safe, it is wise to send the URA Notice any time federal funds are being used. If there are good reasons for not doing so, then an attorney should be consulted.

Disclosure Form

At some point after initial agreement on the MCA project has been reached, the engagement team may want or need to obtain a disclosure form from the right-holders and any other direct stakeholders who will benefit from the MCA. A disclosure form will confirm that right-holders and stakeholders do not have a conflict of interest with any of the participating conservation organizations.

Discuss Terms

Eventually, during the engagement phase, the terms and conditions of the MCA, as well as plans for implementation, should be discussed and conceptually agreed upon by the engagement team, right-holders and other stakeholders (such as any authorizing regulatory agencies). This includes reaching agreement how the achievement of conservation objectives will be determined. Outstanding issues related to the site, MCA terms and conditions, or process should be noted and, if necessary, resolved during Phase 3.

2.4 Verify Agreement

Once the MCA project is presented by the engagement team, the right-holders and other direct stakeholders should have as much time as needed to communicate with their constituency and discuss the desirability of designing an MCA with the engagement team. The engagement team should confirm that decisions made by right-holders and other stakeholders take into consideration the sentiment of their constituency (as was done by the Misool Ecoresort in Indonesia, Figure 9).

Figure 9: Lessee and Local Leaders, Indonesia

Photo courtesy Misool Ecoresort

At this point, the engagement team should have a good idea if they wish to continue or abort the project. If the engagement team, right-holders and other direct stakeholders decide to continue, they should agree on the process to be followed, including timeframe, steps, negotiating teams and roles and responsibilities.

Before concluding the engagement phase, the engagement team must ensure that they have succeeded in conveying the MCA concept to the right-holders and other direct stakeholders. Tools such as role playing with local community representatives (see Example 2 below)

can confirm that right-holders are clear about the implications of entering into an MCA and how it would operate, to ensure that the potential counterparts are in a position to make an informed decision on whether to proceed.

The product of this final engagement step is generally (but not always) a written commitment to work together to define an MCA according to the agreed upon process. This is not yet a commitment to specific conservation outcomes or activities - details of the actual MCA are developed in Phase 3.

Successful completion of the engagement phase should produce:

- A clear idea of who can legitimately design and enter into an MCA on behalf of the right-holders and other direct stakeholders;
- Documented agreement to work towards an MCA;
- A clearer vision of what an agreement will look like (i.e., conservation actions and benefits);
- A refined estimate of the implementation costs should design stage lead to a signed agreement; and
- If funding for implementation has not been secured, a plan to do so during the design stage.

Example 2: Role playing with local community representatives in Cambodia

In Cambodia, community institutions called Commune Natural Resource Management Committees (CNRMCs) were the representatives with whom Conservation International's engagement team discussed and negotiated agreements. Responsibilities of the CNRMCs included communicating to the rest of the community the concept of a conservation agreement, the commitments involved as well as the potential benefits, and, during the implementation phase, disseminating information about the agreements throughout their communities. To assess their ability to do so, a role-playing exercise followed the initial engagement discussions. During the role-playing, one CNRMC member demonstrated how he would explain the agreement to a villager, played by another CNRMC member who asked questions one might expect from community members. The engagement team and the rest of the CNRMC then evaluated the simulated conversation to assess the effectiveness of information transmission. During the implementation phase, randomized surveys could also be used to assess the level of village awareness and understanding of the agreement, and part of the benefit package (an administrative fee paid to the CNRMC) could hinge on achieving a minimum level of village awareness as demonstrated in the surveys.

Phase 3: Agreement Design

After successful completion of Phase 2: Engagement (during which the engagement team, right-holders and other direct stakeholders have agreed to work together), activities for designing the actual MCA begin. The agreement design phase guides conservation organizations through the process of designing a formal MCA, including key components, terms, conditions and additional assessments that may be useful. All parties are free to withdraw from the agreement design process at any time if they feel that a satisfactory agreement cannot be negotiated.

MCA projects can be applied using several different models and agreement types depending on the nature and needs of each project (for a discussion on MCA Models and Types, see: www.mcatoolkit.org). As such, agreement design can vary greatly from one project to the next. Official MCA documents can take the form of contracts, concessions, consents, easements, leases, management agreements, permits, and purchase and sale agreements, among others (sample MCA documents can be accessed through the on-line toolkit under Resources).

Elements of Agreements

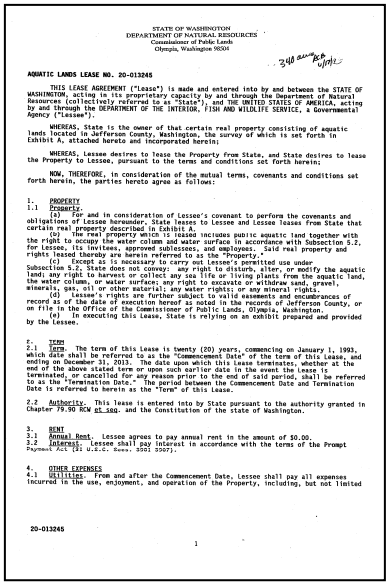
While MCA models and types can vary from project to project, there are several elements that all projects should consider including in the MCA document. Some elements may be boilerplate contract language (which Washington State has, Figure 10) while other elements may be new language developed for each project. In general, conservation commitments, recipient benefits, monitoring and sanctions are the defining elements of an MCA. Additional standard provisions for any agreement will include clear documentation of the parties to the agreement, the duration of the agreement and procedures for dispute resolution. When designing and drafting the agreement, legal advice should be sought to ensure that the agreement conforms to local laws as well as donor expectations.

Any of the elements below identified as important for an MCA project should be carefully and jointly articulated and agreed upon by all parties to the MCA through a participatory process.

Possible elements of formal MCA documents include:

- Identification of signatory parties
- Authorities (under which the MCA entered into and implemented)
- Description of location/area/resources/ecosystem services
- Duration/term
- Purpose/authorized and restricted activities (to include Conservation Commitments)
- Benefits/payments (to include Recipient Benefits)
- Default and remedies/dispute resolution (to include Compliance and Sanctions)
- Assignment and subletting
- Cancellation terms
- Renewal and extension terms
- Expiration terms and final disposition of assets
- Environmental liability/risk allocation
- Financial security and insurance
- Appendices such as management or restoration plans

Figure 10: Formal lease example, Washington



STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES
Commissioner of Public Lands
Olympia, Washington 98504

AQUATIC LANDS LEASE NO. 20-013245

THIS LEASE AGREEMENT ("Lease") is made and entered into by and between the STATE OF WASHINGTON, acting in its proprietary capacity by and through the Department of Natural Resources (collectively referred to as "State"), and THE UNITED STATES OF AMERICA, acting by and through the DEPARTMENT OF THE INTERIOR, FISH AND WILDLIFE SERVICE, a Governmental Agency ("Lessee").

WHEREAS, State is the owner of that certain real property consisting of aquatic lands located in Jefferson County, Washington, the survey of which is set forth in Exhibit A, attached hereto and incorporated herein;

WHEREAS, Lessee desires to lease the Property from State, and State desires to lease the Property to Lessee, pursuant to the terms and conditions set forth herein;

NOW, THEREFORE, in consideration of the mutual terms, covenants and conditions set forth herein, the parties hereto agree as follows:

1. PROPERTY
1.1 Property.
(a) For and in consideration of Lessee's covenant to perform the covenants and obligations of Lessee hereunder, State leases to Lessee and Lessee leases from State that certain real property described in Exhibit A.
(b) The real property which is leased includes public aquatic land together with the right to occupy the water column and water surface in accordance with Subsection 5.2, for Lessee, its invitees, approved sublessees, and employees. Said real property and rights leased thereby are herein referred to as the "Property."
(c) Except as is necessary to carry out Lessee's permitted use under Subsection 5.2, State does not convey: any right to disturb, alter, or modify the aquatic land; any right to harvest or collect any sea life or living plants from the aquatic land, the water column, or water surface; any right to excavate or withdraw sand, gravel, minerals, gas, oil, or other hydrocarbons; any water rights; or any mineral rights.
(d) Lessee's rights are further subject to valid easements and encumbrances of record as of the date of execution hereof as noted in the records of Jefferson County, or on file in the Office of the Commissioner of Public Lands, Olympia, Washington.
(e) In executing this Lease, State is relying on an exhibit prepared and provided by the Lessee.

2. TERM
2.1 Term. The term of this Lease is twenty (20) years, commencing on January 1, 1993, which date shall be referred to as the "Commencement Date" of the term of this Lease, and ending on December 31, 2013. The date upon which this Lease terminates, whether at the end of the above stated term or upon such earlier date in the event the Lease is terminated, or cancelled for any reason prior to the end of said period, shall be referred to as the "Termination Date." The period between the Commencement Date and Termination Date is referred to herein as the "Term" of this Lease.

2.2 Authority. This lease is entered into by State pursuant to the authority granted in Chapter 79.90 RCW et seq. and the Constitution of the state of Washington.

3. RENT
3.1 Annual Rent. Lessee agrees to pay annual rent in the amount of $0.00.
3.2 Interest. Lessee shall pay interest in accordance with the terms of the Prompt Payment Act (31 U.S.C. Secs. 3901 3907).

4. OTHER EXPENSES
4.1 Utilities. From and after the Commencement Date, Lessee shall pay all expenses incurred in the use, enjoyment, and operation of the Property, including, but not limited

20-013245

1

Lease courtesy WADNR

On its own, the information presented in Phase 3 may not provide enough detail for some organizations. Lead conservation organizations should assume that there may be many additional sub-steps and issues involved in the MCA design process based on site-specific circumstances or agency-specific requirements. Specific issues to consider include:

- **Time Requirements:** The time it takes to design an MCA can vary significantly. Under ideal circumstances in which all possible activities occur concurrently and the project sets no new precedent, agreement design may take between six and 12 months. Under other, less-than-ideal circumstances, agreement design may take one to three years to reach signing. When dealing with public agencies, conservation organizations can often be frustrated by the appearance of bureaucratic delays – patience and perseverance will be required.

- **Lease Issues:** Each entity with proprietary leasing authority will likely have different lease applications and procedures. Some states within the U.S. have highly developed leasing programs and templates (such as Washington and Texas) while other states have little to no leasing programs at all (such as South Carolina and North Carolina). Many private landowners may have little to no experience with leasing or easements. Entities with developed leasing programs will invariably want to use their programmatic criteria and formats for documenting the MCA.

- **Fee-simple Issues:**
  - **Option/Sales & Purchase Agreement:** Each conservation organization will likely have specific procedures and requirements for developing and executing (by seller and buyer) option and purchase agreements for MCAs that involve fee-simple acquisitions. Often times, the Purchase Agreement or Option Agreement can only be executed by staff that have received delegated written real estate approval authority.
  - **Escrow:** The Purchase Agreement or Option Agreement may require that an escrow be opened and the deposit or option consideration be deposited. Third-party escrow is often a worthwhile expense, should misunderstandings or disagreements arise at the time of closing.
  - **Title Exceptions:** An objection notice, related to title exceptions discovered during the title search, may be sent to the seller (i.e., the right-holder). The objection notice informs the seller of actions the seller needs to take in order to deliver the title in the appropriate condition at closing.

- **Conventional Land Acquisition Processes:** Many conservation organizations have well-established processes in-place that are used for terrestrial land acquisitions. In addition, there may be acquisition processes specific to different levels of government, such as the Checklist for Land Acquisition using U.S. Federal Funds, and specific to foundations, such as the instructions for using funds from the National Fish and Wildlife Foundation (the checklist and instructions are available for download from the online version of the field guide, under Phase 3 at: www.mcatoolkit.org).

  Conventional terrestrial acquisition processes can frequently be adapted for MCAs that involve fee-simple and less-than fee-simple acquisitions of assets lying within ocean and coastal waters. However, there will likely be acquisition issues and needed actions that relate specifically to ocean and coastal lands and resources.

Short-term Trial Agreements versus Long-term Agreements

During engagement, the lead conservation organization, right-holders and other direct stakeholders should have agreed on the initial use of a short-term MCA versus a long-term MCA. Short-term agreements (those that last one to five years) may not include all of the details that long-term agreements (those that last over five years) include. Short-term agreements are opportunities for each party to get to know one another and the details of the project better. Long-term agreements will require greater detail to ensure commitments are met on behalf of right-holders regarding the legal status of the area to be protected and on behalf of the lead conservation organization regarding long-term benefits.

In general, long-term agreements need to be more explicit in terms of:

- A long-term vision for local development that guides the benefit package design and investment.
- A clear management plan to guide resource and habitat use over time as well as responses to threats to biodiversity. This plan should consider the right-holders' continuing rights, culture and skills, and should be developed with the participation of right-holders as well as other relevant actors (e.g., government, law enforcement, surrounding communities, technical experts).
- A cost-effective long-term monitoring framework based on the monitoring protocols defined for the trial period.
- A long-term financing strategy to cover ongoing activities as well as protect the agreement from potential increases in opportunity cost.

Draft a Plan

After engaging right-holders and other direct stakeholders, and after verifying conceptual agreement on the proposed MCA project, the lead conservation organization should draft a brief plan that identifies the salient project terms and conditions that will become part of the MCA. This plan will in large part describe how the agreement reached in sub-step 2.4 Verify Agreement will be actualized in the MCA and subsequently implemented.

Organizations may have standardized proposal forms, formats, and checklists that project plans must adhere to. Elements of project plans may include restoration activities, long-term management and budgetary needs. Budgetary needs should include acquisition and post-acquisition (see Phase 4: Implementation) costs. Specific information needed in each plan will be dependent on the conservation targets, regulatory agency needs, and requirements of right-holders. The plan should be circulated internally and externally for review and input as necessary and appropriate (i.e., to land acquisition, protection, and/or legal staff, partners, agencies, land/resource owners).

- **Lease Issues:** Legal and protection staff should pay particular attention to leasing requirements and standardized/template lease terms and conditions during their review. Government agencies often have onerous leasing conditions and terms which are difficult to negotiate.

3.1 Conservation Commitments

Commitments within MCAs explicitly describe the conservation outcomes of the project and the actions that the parties to the MCA commit to in order to achieve those outcomes. Biological and other evaluations may be needed to help define the specific conservation targets and threats and strategies, as well as the baseline conditions necessary for the monitoring framework.

The components of the conservation commitment section in an MCA include, at a minimum:

- Conservation outcomes (e.g., species to be protected; if the outcome is a protected area, the size, location, legal status of the MPA);
- Actions by the right-holders (e.g., create a community protected area, stop fishing a particular species, stop a destructive practice, stop commercial fishing, transfer rights or ownership to the conservation organization); and
- Actions by a lead conservation organization (e.g., capacity building, help in securing land rights, support in enforcement, implementation activities, acceptance of rights or ownership from right-holders).

3.2 Recipient Benefits

One of the attractive features of MCAs is that in exchange for conservation commitments, right-holders and other stakeholders receive tangible benefits that can improve their lives and communities. In doing so, conservation becomes a valuable and rewarding asset instead of a burden.

Determining the appropriate benefits that will be provided to right-holders and other stakeholders can sometimes be straightforward and other times very complex. Typically, determining benefits is an iterative process to find the middle ground between the desires of right-holders and other stakeholders and what can actually be delivered by conservation organizations.

Key issues to resolve with regard to benefits include:

- Value of the overall benefit package (e.g., what amount of benefits is affordable and appropriate);
- Type of benefit (e.g., infrastructure, services, direct payments, enterprises);
- If required, decision-making system for selection of investments (i.e., when benefits are direct payments to a community fund);
- Mechanism for benefit delivery: A mechanism should be defined with the counterpart that transparently channels benefits to intended beneficiaries;
- Substantive conservation milestones that trigger benefit delivery; and
- Frequency of benefit provision.

Potential Benefits

MCA benefits can accrue to right-holders, other direct stakeholders and indirect stakeholders (see 1.6 Stakeholders). The majority of these benefits have already been identified in 1.7 Costs and Financing as costs for the value of the MCA itself and as components of Phase 4: Implementation. Direct payments to right-holders are usually associated with the value of the MCA itself (i.e., payments for leases, easements, contracts, or acquisitions). Benefits for other direct and indirect stakeholders (as well as additional benefits for right-holders) are usually associated with implementation activities. Table 6 identifies examples of benefits potentially accrued by stakeholders in an MCA Project.

A critical aspect to consider when developing the benefits package is that support for and compliance with the MCA will likely be greater if at least some of the benefits are delivered periodically and predictably over the life of the project period, contingent on conservation outcomes.

Table 6: Sample MCA Benefits

Alternative enterprises	Secure a buyer for alternative, locally and sustainably-based products
Aquaculture and related extension services	Contracting a local NGO for technical support and training to improve aquaculture productivity
	Supplying aquaculture materials and supplies
	Rehabilitating aquaculture areas with contracted laborers
	Alternative livelihood products such as artificial live rock or pharmaceutical products
	Training in improved aquaculture techniques
	Provision of guards or boats to protect aquaculture sites from predators and thieves
Communications	Establish mechanisms for the coordination and exchange of information between and among community members.
Ecotourism development	Funding of comprehensive ecotourism development plan
Education	Funding or supplementing salaries of one or more teachers at local school
	Supporting physical improvement of school and community cultural facilities
	Scholarships for youth
Financial compensation	Community development fund to help support poor families, community meetings, the maintenance of machines, and emergency support for sickness - fund created with the administration fee paid to a council to manage patrolling teams and oversee agreement compliance
	Direct payments to individuals, communities, or community groups for lost use or harvest activities.
	Funding from private business partner for community fund that will support long-run benefit provision
Land tenure assistance	Technical assistance for legal designation of the reserve, including legal advice to address on-going invasion issues
	Assistance to formalize rights for community to use an area being granted under land reform schemes
Planning	Assistance in creating an implementation plan
	Assisting formulation of local community patrolling plan and regulations
Salaries for patrolling & monitoring	Equipment, training and salaries for patrolling - this can be non-rotating personnel or rotating between community members to spread income benefit equitably around community
	Training for biodiversity monitoring and wages and equipment for monitors

3.3 Compliance

The success of an MCA project hinges on a credible monitoring framework to verify compliance with the conservation commitments and justify sanctions in the event of non-compliance. Items to monitor include:

- Compliance with conservation commitments (e.g., no dredging or dynamiting, no hunting or fishing, no illegal mining, as well as performance with respect to conservation actions such as patrolling and boundary maintenance);
- Effectiveness/equity of benefits management (e.g., proportion of resource users receiving benefits, accountability for funds used); and
- Awareness, understanding, and satisfaction related to the MCA.

Compliance monitoring should be further developed in sub-steps 4.4 Science and 4.5 Enforcement.

Compliance Reporting

Compliance reporting is the mechanism by which infractions to the terms and conditions of the MCAs will be identified, recorded, reported, discussed and agreed upon by the lead conservation organization, right-holders and other direct stakeholders. For example, patrolling is one possible compliance reporting mechanism for MCA infractions, which may proceed in a simplified scenario as:

- **Identification:** Community MPA guards observe local community members collecting shellfish within no-take zone;
- **Recording:** MPA guards record observations in daily patrol logs;
- **Reporting:** MPA guards submit logs to MPA Manager;
- **Discussion:** MPA Manager discusses infraction with community leaders and the identified local community members to determine penalty; and
- **Disposition:** Sanction (see below) is imposed as per the terms of the MCA and as agreed upon.

The primary compliance reporting mechanisms must be articulated within the MCA.

3.4 Sanctions

Benefits realized by right-holders and other stakeholders must be conditioned on compliance with commitments specified in the MCA. Sanctions (adjustments in benefits) for non-compliance must be designed jointly by all parties to the MCA to ensure that they are understood, viable and appropriate given the cultural, social, political and legal settings of the MCA project.

Sanctions (or penalties) for infractions to the terms and conditions of an MCA can accrue to right-holders, other direct stakeholders and indirect stakeholders. Depending on the severity and nature of the infraction, sanctions can be applied incrementally and specifically (to specific people for specific purposes) or comprehensively (to all stakeholders at once) under the most

severe of circumstances. Under most circumstances, however, sanctions should be progressive, such that increasing numbers and gravity of transgressions result in stronger penalties. These scenarios and contingencies should be described in the MCA. Examples of sanctions are identified in the Table 7 below.

Table 7: Sample MCA Sanctions

Alternative enterprises	Cease or decrease contracting with buyers of alternative, locally and sustainably-based products
Aquaculture and related extension services	Cease or decrease technical support and training to improve aquaculture productivity
	Cease or decrease supplying aquaculture materials and supplies
	Cease or decrease rehabilitating aquaculture areas with contracted laborers
	Cease or decrease alternative livelihood projects such as artificial live rock or pharmaceutical products
	Cease or decrease training in improved aquaculture techniques
	Cease or decrease providing guards or boats to protect aquaculture sites from predators and thieves
Communications	Cease or decrease coordination and exchange of information between and among community members.
Ecotourism development	Cease or decrease funding ecotourism development
Education	Cease or decrease funding and supplementation of salaries for one or more teachers at local school
	Cease or decrease support for physical improvements to school and community cultural facilities
	Cease or decrease scholarships for youth
Financial compensation	Cease or decrease payments to community development fund that supports poor families, community meetings, the maintenance of machines, and emergency support for sickness.
	Cease or decrease direct payments to individuals, communities, or community groups for lost use or harvest activities.
	Cease or decrease funding from private business partner for community fund that will support long-run benefit provision
Land tenure assistance	Cease or decrease technical assistance for legal designation of the reserve, including legal advice to address on-going invasion issues
	Cease or decrease assistance to formalize rights for community to use a are being granted under land reform schemes
Planning	Cease or decrease assistance in creating an implementation plan
	Cease or decrease formulation of local community patrolling plan and regulations
Salaries for patrolling & monitoring	Cease or decrease funding for equipment, training and salaries for patrolling.
	Cease or decrease biodiversity monitoring and wages and equipment for monitors

3.5 Regulatory Permits

Implementation actions planned under MCAs may trigger one or more regulatory criteria that require authorization by government agencies. Such actions include, but are not limited to:

- Installation of signs and structures for enforcement and recreation purposes (see 4.5 Enforcement and 4.6 Public Uses);
- Community and livelihood development (see 4.7 Livelihoods);
- Habitat improvement and species propagation (see 4.8 Habitat Management); and
- Maintenance activities including general cleanup and signage (see 4.9 Maintenance).

At this point in the process, all regulatory permits should be identified and applied for that are required as part of the project and required to be obtained prior to signing the MCA (i.e., closing the sale or issuance of a lease or contract). Numerous local, state, and federal regulatory agencies and permits may be involved. Permitting requirements are site and project-specific and must be determined on a case-by-case basis. The receipt or ability to receive needed regulatory permits should be made a contingency for signing the formal MCA document.

- **Ocean and Coastal Issues:** Regulatory permitting requirements for activities undertaken in ocean and coastal waters can be complicated, confusing, and controversial. Early and frequent contact with regulatory agencies should facilitate permitting. Conservation organizations should expect delays and numerous, iterative discussions and permit applications. The Country Analyses and U.S. State Analyses (see: www.mcatoolkit.org) provide information on possible permitting requirements as well as agency contact information for some areas.

- **Lease Issues:** Leasing agencies may require that conservation organizations have all regulatory permits in-hand prior to issuance of leases. However, regulatory agencies may not be able to issue permits in the timeframe required of the transaction or conservation organizations may not be prepared (for a number of reasons) to apply for the permits. If this is the case, conservation organizations may have to seek an exception to the permitting requirements based on the expectation that regulatory permits will likely be received at a later time. A contingency clause in the lease or letters from regulatory agencies may allow for this later receipt of permits.

  Generally speaking, public agencies may be reluctant to move to final execution (i.e., issuance) of a lease before the regulatory permits have been issued. However, this does not mean that a lease application cannot be submitted and negotiated, pending the issuance of the regulatory permits. This is the difference between an application being "filed" and one being "perfected." Also, in some cases where the process of lease issuance may be protracted, a public agency may be willing to issue a lesser use authorization (e.g., right of entry) for the purposes of expediting on-site inspections and preparatory work in anticipation of lease negotiations.

Moreover, conservation organizations can find themselves in a Catch-22 if they do not approach both the leasing agency and the regulatory agencies in a coordinated fashion. Regulators may ask for design elements that are not acceptable to the leasing entity or vice versa. Constant project re-designs can greatly reduce the cost-effectiveness of a project. Pre-permitting conferences and discussions with agency staff can help avoid such situations.

3.6 Final Actions

Before formal MCA documents can be signed and executed by the parties, there may be several "pre-closing," final actions that should be taken. Final actions will vary from project-to-project depending on the model and type of MCA being employed. Below are common final actions that MCA leads should consider.

Additional Assessments

Additional assessments may be needed prior to finalizing an MCA. These include:

- **Capacity Building:** Once commitments are agreed upon, the capacity of the lead conservation organization, right-holders and other direct stakeholders can be re-assessed to identify further capacity-strengthening needs. Capacity building may be necessary for implementation activities and fund management.

- **Revised Cost Estimates:** At this point the lead conservation organization can revisit cost estimates for the agreement and assess affordability. Costs were originally estimated in 1.7 Costs and Financing while a primer on MCA costing is presented in Appendix 2.

The final actions below apply specifically to MCA projects that employ purchase-like or contract/lease-like mechanisms in countries with well developed tenure systems and sophisticated markets (such as the U.S.).

Contingencies and Final Instructions for Purchases

Lead conservation organizations should Exercise the Option or Waive Contingencies for fee-simple purchases. This is the action that legally obligates the organization to acquire the land, resources, or services. Consequently, organizations must be certain at this point that they want to acquire the interests and that any risk associated with the acquisition is acceptable.

Closing Statements and Final Instructions should also be reviewed at this time for fee-simple purchases. All necessary funding should be in the Escrow. Fees, costs, and funds should be allocated correctly.

Performance Bonds for Contracts

In some cases, right-holders (usually government agencies) will require lead conservation organizations to acquire performance bonds prior to entering into contracts. Performance bonds may be used by authorizing agencies for several reasons, including: if rents are not paid; if lead

conservation organizations fail to perform as per substantive contract requirements; and to remove newly installed improvements at the end of the contract.

Final Walk-Through

A final walk-through of the property or area can be performed, and in many cases is highly advisable, to ensure the status and condition of the conservation target has not changed while the project was being developed and the MCA was being negotiated. For obvious reasons it is often difficult, if not impossible, to walk-through lands and resources lying within ocean and coastal waters. If the amount of time that has passed during development and negotiation of the MCA is short, the location of the proposed MCA is remote, and use of the land, resources or ecosystem services targeted by the MCA is minimal, a site visit may not be necessary. However, if a site visit is desired, timing the visit with low tides will be beneficial for intertidal areas and accessing the area with boats, SCUBA, or underwater cameras may be necessary for subtidal areas.

Signing the Purchase and Sales Agreement

For MCA projects that involve fee-simple purchases, the Purchase and Sales Agreement should be signed by both the seller (right-holder) and the buyer (the lead conservation organization). Contingencies in the agreement should be made for outstanding issues related to corporate/board approval, regulatory permits, and due diligence.

Final Approval

Some organizations require that final approval be given by the corporate or board prior to closing.

Closing

The lead conservation organization's project manager should authorize in writing closing the sale or executing the contract, at which time the escrow (if applicable) can close.

Executing the Final Agreement or Deed

The MCA deal or transaction must finally be closed by executing a contract or deed. Each party must sign and receive copies of the contract or sales agreements. At this point, funds and the title or contract should be transferred and the deed or memorandum of contract should be recorded or filed at the appropriate public office. Government agencies often require other parties to sign documents prior to their signature. In some cases, it may be appropriate or beneficial to organize an agreement signing ceremony as a means to build pride in and recognition of the agreement among the community. Inviting special guests and authorities to the ceremony increases its relevance, can enhance legitimacy, and strengthens commitment to the agreement.

Title Insurance

Concurrent with closing the MCA deal that involves a fee-simple purchase, a title insurance policy that indemnifies the policy holder (i.e., the buyer/lead conservation organization) for loss sustained by a title that proves defective should be acquired. Organizations should consider acquiring title insurance policies for contracts (such as leases) dealing with property rights as well. The cost of the title insurance policy should be weighed against the cost of the contract.

Closing Costs

Finally, the lead conservation organization may have to pay closing costs and taxes (if sales or lease excise taxes, or other taxes need to be paid), and consider purchasing liability insurance for property.

Phase 4: Implementation

The most crucial phase in the MCA process is implementation -- this is when the actual conservation is achieved. All of the other phases have been undertaken solely to enable this phase. After the MCA has been designed and signed in Phase 3, the implementation phase begins.

Implementation Needs

There is often a common misperception that areas lying within ocean and coastal waters are somewhat fallow and require little active management. Conservation organizations may assume there will be little time, effort, and resources needed for MCA projects after all of the parties have signed the formal documents. Unfortunately, this may not be the case.

Lands, resources and ecosystem services associated with ocean and coastal waters frequently require similar types of management as terrestrial assets. Due to the fluid nature of the environment, ill-defined boundaries, public rights to water, and several other factors, strict attention and necessary resources should be dedicated to long-term implementation activities. Site-specific focus is, in fact, one of the important and tangible benefits conservation organizations can bring to ocean and coastal management that public agencies can ill afford.

The project implementation sub-steps presented in this toolkit are designed to stimulate thinking about several primary long-term management responsibilities. The sub-steps do not necessarily represent the full range or the minimum viable set of all needed management activities for specific sites — this must be determined on a case-by-case basis. Some sites will require high levels of long-term implementation activities while other sites will require little if any.

Implementation Roles

There are three basic scenarios under which MCAs may be implemented. Each scenario prescribes different roles for lead conservation organizations and right-holders. In addition, other direct stakeholders may be engaged by lead conservation organizations and right-holders to assist with any or all implementation activities. From this point forward, those directly responsible for implementing the MCA, whether conservation organizations, right-holders or other direct stakeholders, are considered the "implementers."

The basic implementation scenarios include:

- Original right-holders retain interests in the land, resources or ecosystem services and also assume the lead role for implementation activities.

- Original right-holders retain interests in the land, resources or ecosystem services, but the lead conservation organization assumes implementation responsibilities.

- Original right-holders transfer interests in the land, resources or ecosystem services to the lead conservation organization or a third party and the lead conservation organization or third party assumes implementation responsibilities.

1) Right-holders Retain Interests and Assume Implementation Responsibilities: As the implementer, the right-holders are responsible for nearly all aspects of implementation while the role of the lead conservation organization is relatively limited, ensuring the terms and commitments of the MCA are fulfilled by the right-holders. Typically, the activities of the lead conservation organization will shift over the implementation period from day-to-day activities to periodic engagement. The most basic requirement for moving toward a long-term, sustainable agreement is effective initial implementation and regular feedback of experiences.

Standard procedures for benefit delivery and performance monitoring should evolve such that the lead conservation organization activities take the form of periodic application of established protocols rather than ongoing engagement. However, the lead conservation organization must always continue to ensure that mechanisms are in place to allow prompt responses to implementation problems, community grievances, or the emergence of new threats to the stability of the agreement.

Over the long-term, the ideal role for the lead conservation organization is to measure progress towards biodiversity conservation, improvement of the quality of life for local community members and compliance with the agreement. The results of these activities will ultimately allow periodic re-design of the agreement to ensure it effectively conserves biodiversity while people are satisfied with the arrangement. These activities are not optional and should be performed on a regular basis.

2) Right-holders Retain Interests; Conservation Organization Assumes Implementation Responsibilities: As the implementer, the lead conservation organization is responsible for all aspects of implementation while the role of the right-holders is relatively limited, ensuring benefit delivery is received by the appropriate parties. Periodic check-ins may be desired by right-holders to ensure the lands, resources or ecosystem services are being managed according to the terms and conditions of the MCA.

3) Right-holders Transfer Interests; Conservation Organization Assumes Implementation Responsibilities: Once again, as the implementer, the lead conservation organization is responsible for all aspects of implementation while the role of (former) right-holders is nearly non-existent. Because the right-holders transfer their formerly-held interests, there is typically no need or desire for them to engage in implementation activities. This is even more common if the transfer of interests is perpetual, such as under a fee-simple purchase. If the transfer of interests has a defined term and the interests may return to the right-holders at the end of the term, then the right-holders may retain at least some level of interest and engagement during the implementation period.

Implementation Sub-steps

While the information within Phase 4 is presented as a series of sub-steps, 4.1 - 4.10, in reality, implementation activities are not nearly as sequential as the sub-steps of the other three phases. Some implementations activities need to be undertaken immediately and simultaneously while other sub-steps can be undertaken later and sequentially. While the immediate and long-term needs and timing of implementation activities will largely be project-specific, we have attempted to present them here in an order in which the most common, pressing needs are presented first and in a logical progression (wherein later activities may benefit from earlier activities). Ultimately, under any of the three implementation scenarios as described above, a similar set of implementation actions may be necessary at some point during the MCA project's life.

4.1 Administration

Administrative activities related to MCAs are similar to other conservation projects - logistics, communication, travel, personnel and reporting. While planning and funding/budgeting are often considered administrative functions, they are treated separately in the MCA field guide because of their relative significance in determining project success. Beyond normal project administrative actions, specific activities related to MCAs are below.

Immediate Actions: As soon as possible upon signing the MCA, the lead conservation organization, whether the implementer or not, should undertake the following administrative actions:

- Ensure that a representative of the lead conservation organization is responsible for overseeing the MCA; this person will likely be the engagement team lead.
- Recruit qualified, dedicated people to carry out capacity-strengthening, if necessary, to enable MCA signatories to meet their commitments.

The implementer (lead conservation organization, right-holder or other direct stakeholder) should immediately begin management planning if not already started.

Year One-Plus Actions: After the first year of implementation, implementer feedback and reporting to stakeholders and funders will likely be necessary:

- Stakeholders, especially leasing agencies (if applicable), may require or desire periodic progress reports and approval of future actions that were not explicitly identified in the terms and conditions of the MCA.
- Contract renewals, extensions or amendments may be required after predetermined time periods -- in years one through five for short-term MCAs or after five years for long-term MCAs. Monitoring information should feed into the renegotiation processes and improved strategies for conservation management, delivery of benefits and communications.

4.2 Planning

Implementers should carefully plan for the long-term, adaptive management of the lands, resources and ecosystem services that are subject to MCAs. Planning can take the form of annual work plans, long-term general management plans, and project-specific plans for activities such as research, monitoring and habitat management. Planning activities should be closely linked to or soon followed by funding activities.

The activities to include and processes to follow for MCA planning are similar to other conservation site or resource management planning efforts. Implementers should ensure that one or more plans address all aspects of implementation, including sub-steps 4.1 through 4.10. Some of these activities may have already been planned for and specified in the terms, conditions or attachments of the MCA as well as associated regulatory permits.

While numerous in-depth guides are available for conservation project planning, three guides that may be helpful to implementers of MCAs are identified below:

- IUCN Guidelines for Management Planning of Protected Areas (see: http://www.iucn.org/about/union/commissions/wcpa/wcpa_puball/wcpa_bpg/?378/Guidelines-for-Management-Planning-of-Protected-Areas);
- Primer on Marine Planning for South Australia (see: http://www.environment.sa.gov.au/coasts/planning.html) ; and
- Site-specific marine management planning guidance and example from Australia (see: http://www.heardisland.aq/protection/management_plan/index.html).

4.3 Outreach

Outreach activities undertaken for MCA projects are critically important before and during project implementation, especially in areas where the project is setting a new precedent, is controversial, or where the local community is involved. Outreach may also be the one implementation activity that should be done at several levels even when no other activities (such as science, habitat management, maintenance, recreation or enforcement) are being undertaken.

An active outreach effort can:

- Educate stakeholders about issues related to sites, organizations, and marine protection;
- Encourage stakeholders to report violations and problems observed while on sites;
- Gain stakeholder support and funding for individual projects and organizational efforts;
- Recruit volunteers for site maintenance, science, and habitat activities; and
- Reduce impacts from stakeholder activities.

Besides maintaining consistent communications with right-holders and other direct stakeholders, implementers will benefit from reaching out to indirect stakeholders, such as agencies, other organizations, neighbors, politicians, and the public, to inform and engage them during planning processes.

Direct and Indirect Stakeholders

Immediate Ations: As soon as possible after the MCA is signed, the lead conservation organization (whether the implementer or not) should ensure that all parties to the agreement understand the deliverables and obligations (e.g., rangers have an obligation to conduct specified number of patrols, community leaders must be present when aquaculture technical assistance is provided).

Months 1-6 Actions: The implementer must soon ensure that all other, indirect stakeholders are aware of the MCA, including the commitments, roles, and responsibilities.

Year One-Plus Actions: As a means to reinforce the long-term sustainability of the MCA, implementers should undertake the following outreach activities to all direct and indirect stakeholders throughout the duration of the MCA:

1) Encourage acknowledgement of direct advantages provided by the MCA, such as financial and in-kind value of the benefits themselves, access to a reliable stream of benefits not tied to outside markets, and access to technical assistance and public services through the relationship with the lead conservation organization and other partners.
2) Encourage recognition of direct and indirect benefits generated by resource conservation, such as ecosystem services from conserved resources, avoided negative social impacts often linked to destructive resource use (e.g., loss of traditional values, alcoholism, spread of disease, etc.), and protection of cultural and religious values linked to healthy resource base.
3) Promote embracing of biodiversity as a value (e.g., building pride).

Local Community

Reaching out to the local community (including adjacent landowners and lessees, as well as landowners within the watershed) is critical to the long-term success of most MCAs, specifically those that lie within an ecologically functional distance to the shoreline and those that are closely tied to the community through social, cultural and economic means (such as in Indonesia, Figure 11). Activities that local communities undertake may impact MCA projects which typically lie at the bottom of watersheds, below the high tide line along coastal areas. Neighboring structures and activities such as clear-cutting, burning, dynamiting, shoreline armoring and development, recreational piers, chemical treatments on lawns, and septic systems can jeopardize the success of MCA projects.

Providing local communities with information on best management practices (for example, see the Shoreline Landowner's Education Toolkit at: http://www.psparchives.com/publications/our_work/science/shoreline_guidebook06.pdf) and funding for shoreline improvement projects creates goodwill and improves the likelihood of project success.

Figure 11: Local Community Meeting, Indonesia

Photo courtesy Misool Ecoresort

Immediate Actions: As soon as possible after the MCA is signed, the implementer should, if possible and not already done, identify a community "champion" for the project. This person's role may range from formal community liaison with the MCA project to consensus building among community groups to promote the MCA among local stakeholders.

Agencies

Implementers can use their new status as vested stakeholders to get seats at negotiation tables when agencies are contemplating decisions that will affect their sites or the marine environment at-large. When conservation organizations are the implementers, they can use these opportunities to suggest approaches such as resilience planning, ecoregional assessments, marine spatial planning, and ecosystem-based management. Organizations can also use their sites as case studies of effective area-based management, new restoration techniques, scientific discoveries, and compatible public use, among others.

Conservation Organizations

Other conservation organizations may be interested to know how they could apply similar MCA strategies in ocean and coastal waters. When an organization enters into an MCA, it is in a unique position to reach out to other conservation organizations as a means to achieve greater conservation and also to bolster MCAs as a widely understood and comprehensively applied strategy. When additional conservation organizations use MCAs, overall acceptance and success of the strategy will improve.

Politicians

Working within ocean and coastal environments can be extremely controversial due to the multitude of stakeholders, the complicated management framework, and the fluidity of the environment. As such, MCA implementers may be affected by controversies through political decision-making. Given this, implementers may not only benefit from understanding the political climate related to such work in the relevant locations, they may also benefit from actively reaching out to local, state, and federal politicians to educate them about the in-water conservation projects. When working with politicians, however, non-profit conservation organizations must understand and follow all applicable guidelines associated with lobbying.

Public Users

Public users in and around MCA sites can be both a blessing and a curse. To make them a blessing, some sort of active outreach is likely needed. Informational signs placed on or adjacent to sites is a passive approach that is often used on protected areas which are open to the public. However, the effectiveness of this approach is questionable as the public often does not have the time or desire to pause their activities and educate themselves about the possible impacts they are causing. As such, MCA implementers should consider whether an active approach to public outreach is a cost-effectiveness means to achieving their conservation goals.

4.4 Science

Scientific activities related to the implementation of MCAs include establishing baseline conditions, monitoring, determining ending conditions and experimentation. Some scientific activities may be optional while others may be required due to the desires of funders, regulatory agencies, right-holders and conservation organizations.

Before other implementation activities in the field begin, biodiversity and socio-economic baseline conditions and monitoring systems should be relatively well understood and developed. Much of the necessary information to establish these will likely have been gathered in sub-steps 1.1 Conservation Targets, 1.2 Threats and Strategies, and 3.1 Conservation Commitments.

Baseline Conditions

Immediate Actions: If not accomplished during prior phases, initial baseline information should be gathered as soon as possible after the MCA is signed.

- **Biodiversity Baselines:** It is a wise practice for due diligence purposes to establish baseline biological and physical conditions of MCA sites. Biological conditions include the presence and status of some or all plant and animal species as well as habitat conditions (including the current level and impact of public uses). Physical conditions include parameters such as sediment and water quality, shoreline processes, and erosion rates. If sediment and water quality conditions are poor, contributing factors should be identified.

- **Socio-economic Baselines:** Establishing socio-economic baselines is likely more important for MCA projects in developing countries or those in developed countries that involve community benefits, development and livelihoods. In either case, baselines for broad socio-economic factors such as income, education and health should be determined. If not already completed, the project boundaries for the MCA should also be determined as accurately as possible. Knowing where project boundaries are located will help implementers identify encroachments on those boundaries in the future.

Monitoring

Immediate Actions: Biodiversity and socio-economic monitoring protocols should be established soon after the MCA is signed. Individuals and organizations responsible for undertaking the monitoring should be identified soon thereafter.

Establishing a monitoring program for sites is essential if project managers want to determine trends and impacts over time. Project adaptation, evaluation, and success all depend on site monitoring. Monitoring may or may not have to be scientifically rigorous to achieve its goals. The degree to which a formal monitoring program is needed depends on how the results will be used. If the desire is to simply ensure that neighbors and the public do not substantially impact the site, then casual observations may be all that is necessary. If, however, the desire is to document changes such as biodiversity increases due to habitat manipulations, then a more rigorous approach will be needed.

Although a formal, more rigorous monitoring system should be cost effective, it should also provide the necessary level of quantitative information to assess three key sets of indicators: conservation outcomes, socio-economic trends, and agreement compliance. Any other performance metrics in the agreement may be included as needed (e.g., use of benefits, communications and awareness). Monitoring, while dependent on site and resource-specific circumstances, should generally be undertaken at least annually throughout the duration of the MCA.

Monitoring can be used at sites to detect and document:

- Boundary encroachment by neighbors;
- Changes to baseline conditions;
- Effects of habitat modification and experimentation;
- Effects of species re/introduction or eradication efforts;
- Effects of human activity reduction, modification, or prohibition;
- Existence or expansion of invasive species;
- Levels impacts of public use and recreation (i.e., trampling, garbage, derelict vessels, resource extraction, and erosion); and
- New or continued sources of water, air, and sediment contamination (i.e., oil, sewage outfalls, and under ground seeps).

Issues related to both biodiversity monitoring and socio-economic monitoring should be considered and addressed, such as:

- **Biodiversity Monitoring:** Biodiversity monitoring helps measure progress towards achieving conservation outcomes and should be conducted at least annually or bi-annually. Protocols should be designed to track conservation targets regularly over time, taking into account seasonality when appropriate. Third party involvement in monitoring may be necessary to guarantee objectivity of data collection as well as analysis of progress in achieving biodiversity outcomes. In addition, agreements will often benefit in at least three ways from community involvement in biodiversity monitoring:

- Employment opportunities;
- Cost effective data collection; and
- Enhanced knowledge, capacity and pride of community members.

For priority species, biodiversity monitoring will typically focus on abundance, measured directly through transects and plots. For protected areas, monitoring will concentrate on habitat quantity and quality. Data collection options will vary, but may include satellite imagery, flyovers, water quality tests, and third party monitoring of major access points to the resource.

- **Socio-Economic Monitoring:** Tracking socio-economic changes, at least annually or bi-annually, will show the contribution of the MCA to improved local conditions and changes in local perspectives regarding conservation and the agreement itself. Third party involvement again may be appropriate to guarantee objectivity of data collection and transparency in reporting. For rigor, control sites should also be monitored if possible and cost effective, or the protocol can use regional statistical data (depending on quality and availability) to isolate the impact of the MCA on human well-being. The cost of data collection, which may take the form of household surveys and focus group discussions, can be reduced by involving local university students.

  The following types of indicators should be considered when monitoring socio-economic changes:

  - Awareness/understanding of the MCA (rules, benefits, duration);
  - Overall satisfaction with the MCA;
  - Perceptions and attitudes towards conservation;
  - Community perceptions of changes attributable to the MCA;
  - Effectiveness of the benefits provided under the MCA;
  - Broad socio-economic changes (e.g., income, educational attainment, health); and
  - Effectiveness of decision-making institutions and processes (e.g., transparency, participation).

Ending Conditions

At the end of MCA project periods (such as at the end of lease terms), it may be desired or necessary to once again determine biological and physical conditions, as well as socio-economic conditions, to allow comparisons against initial baseline conditions. This may be done for scientific or legal (documenting conditions and uses for liability purposes) purposes. The end of a lease or other MCA project may also be the time to determine the long-term effects of experiments that were undertaken during the project period.

Experimentation

MCAs can provide access to sites for scientific experimentation (for example in California at Audubon's Richardson Bay Sanctuary, Figure 12). This unique access to areas, which are typically open for a variety of multiple public uses, may be used by scientists to:

- Manipulate habitat;
- Manipulate human uses;
- Re/introduce plant or animal species;
- Use as control sites; and
- Use as pilot sites to determine or test best management practices (for example, for aquaculture or green public access).

Figure 12: Underwater Research, California

Photo courtesy Wendy Norden

4.5 Enforcement

Enforcement is a key component of the MCA approach. Unless performance by all parties and stakeholders is monitored to ensure compliance with the MCA, the conservation incentives will not work since the benefit stream must be contingent on compliance. A successful MCA also requires adequate investment in enforcement mechanisms, to strengthen all relevant parties' ability to comply with the agreement.

Some observers note that enforcement is notoriously difficult, particularly in settings with weak legal institutions and government capacity, and thus poses a major obstacle to MCAs. Clearly, enforcement is a challenge and can require a considerable investment. Two points suggest that it does not, however, undermine MCAs as a conservation tool. First, enforcement requirements present a ready target for investments that directly benefit local stakeholders in the form of training and employment. Second, as much of a challenge as enforcement may be, no other conservation tool eliminates the need for monitoring and enforcement. Indeed, given the positive incentives to participate in conservation provided by MCAs, there is reason to believe that in many situations enforcement may be easier, less expensive, and less confrontational under an MCA than when using other tools.

Enforcement Needs

The amount and type of enforcement needed for any given MCA project depends on several factors, such as:

- **Abandoned property:** Are vessels and fishing gear often abandoned in the area?
- **Contaminated sediments:** Are there on-going clean up or long-term maintenance activities involving contaminated sediments caused by former lessees, owners, or adjacent landowners and lessees?
- **Crime:** Does the immediate area have a history of crime, vandalism, or juvenile delinquency?
- **Dumping:** Is there a history of or likelihood that garbage will be intentionally and frequently dumped at the site?
- **Encroachment:** Are adjacent uses likely to extend into the boundaries of the site?
- **Lands, resources and ecosystem services targeted for conservation:** Are they sensitive and economically valuable?
- **Live-aboarders*:** Is the site a protected bay or cove where boaters may set anchor and establish residency (i.e., squat)?
- **Pollution and contamination:** Are there frequent passing vessels or nearby industrial facilities, outfalls, and watershed runoff that may violate state and federal pollution laws, trespass, otherwise cause damage to the site?
- **Public uses:** Is there potential for user conflicts or resource degradation?
- **Structures and equipment:** Are there valuable or sensitive structures and equipment left on-site for project purposes?
- **Terms and conditions of the MCA:** Are violations by other parties likely?

*** Live-aboarders:** Of special note are live-aboarders. Live-aboarders are people who live aboard their vessels or houseboats while moored offshore or in marinas (e.g., a live-aboard boat in California, Figure 13). Offshore anchoring normally occurs in protected locations, such as bays and coves. Whether live-aboarding and associated activities (such as sewage disposal) are legal or not depends on the local, state, and federal laws as well as whether permission from MCA implementers is given.

Figure 13: Live-aboard Vessel, California

Photo courtesy Wendy Norden

When live-aboarding or associated activities are illegal, it is especially difficult to enforce for several reasons:

- It can be difficult to prove someone is living aboard a vessel or houseboat;
- The residents are frequently transient with no permanent addresses;
- The residents' names are often unknown; and
- The residents can quickly re-locate if necessary.

General problems associated with live-aboarders include localized pollution and resource degradation, unsightly structures, user conflicts, and onboard fires, among others. However, a legal, responsible, and reputable live-aboarder who voluntarily works in collaboration with implementers may actually help monitor the site and report problems or violations. MCA implementers should evaluate the potential for live-aboarders on their site and the pros and cons of actively collaborating with one or more live-aboarders to act as on-site volunteer caretakers.

Enforcement Steps

There are at least three steps to enforcement: 1) deterring violations, 2) detecting violations, and 3) reacting to violations.

1) **Deterring violations** can be accomplished by:

- Establishing and maintaining good relationships and open communications with right-holders, other direct stakeholders and indirect stakeholders - especially community leaders and members.
- Explicitly describing to all stakeholders the conservation commitments and recipient benefits articulated in the MCA.
- Offering appropriate benefits and financial incentives for performance under the terms and conditions of the MCA.
- Posting informational signs and demarcating the MCA boundaries (e.g., shellfish spawner sanctuary signs in New York, Figure 14).
- Maintaining a consistent presence in the field by MCA project staff, police, rangers, guards, community members and volunteers.
- Making direct contact with the public in the field by MCA project staff, police, rangers, guards, community members and volunteers.

Figure 14: Informational Signage, New York

Photo courtesy TNC

2) **Detecting violations** can be accomplished by:

- Actively and passively (while conducting other activities) making visual observations of the MCA area by MCA project staff, police, rangers, guards, community members and volunteers.
- Undertaking scientific monitoring to identify changes and impacts to biological and physical conditions within the MCA area.

3) **Reacting to violations** can include:

- Contacting and warning those suspected of violating the MCA terms and conditions or relevant laws.
- Community enforcement of MCA terms and conditions against members of the community.
- Imposing sanctions as agreed to in the MCA, such as reduction in benefits supplied to right-holders, other direct stakeholders and indirect stakeholders.
- Judicial (court) enforcement of relevant criminal laws and regulations (against law violators within the MCA area).
- Judicial (court) enforcement of civil law (MCA terms and conditions against right-holders and other direct stakeholders).

Enforcement Timing

1 -6 Month Actions: In the first few months of implementation, demarcation and signage of the MCA boundaries should be completed. If the project is area-based, demarcating the borders using a locally appropriate option (e.g., clearing vegetation, planting a specific species such as willows in the water, signposts, buoy markers, fences) should be completed. For species agreements, suitable signage advising would-be resource users of restrictions should be installed. A regular presence in the project area by MCA project staff, police, rangers, guards, community members or volunteers should be established.

6 – 12 Month Actions: Early during implementation, implementers should meet with indirect stakeholders to discuss the MCA, identifying which things are going well and which things need to be improved. This early stakeholder consultation will help identify and address problems before they become too entrenched, while building trust and local support.

Annual or Bi-annual Actions: At least every year or two years (after the MCA is well established), compliance with the MCA's conservation commitments should be reviewed by the lead conservation organization, right-holders and other direct stakeholders. Regular reviews of compliance indicators are essential to ensure the MCA's long-term sustainability. Such indicators include:

- Conservation commitments, relating to both pressure (e.g., gillnets, traps, snares, commercial fishing) and response/management activities (e.g., patrolling, restoration);
- Management of the agreement (e.g., appropriate use of funds, audited financials, reporting on conservation activities); and
- Communications and information dissemination (e.g., awareness, understanding, and satisfaction relating to the MCA).

4.6 Public Uses

Public uses can play an important role in MCA projects, potentially both positive and negative, and thus must be carefully managed. Certain public uses may have to be accommodated within MCA sites due to requirements in statutory or common laws, such as the public trust doctrine in the United States. In other situations, it may not be required but may be desirable to provide public uses on sites to gain public support and funding or to respond to public demand. Allowing public access to sites can also help implement management activities such as monitoring and cleanup.

Options and requirements regarding public uses should be clarified as early as possible during the feasibility analysis and agreement design phases. Organizations should take into consideration that they may not be able to legally or practically exclude public uses from sites because of legal requirements, enforceability, or social and cultural norms. Conservation organizations must determine whether allowing and managing public uses on MCA sites are compatible with their conservation goals.

Depending on the legal circumstances and desires of conservation organizations, public uses may be passively accommodated or actively encouraged on sites. Public uses will likely be more prevalent on sites that are closer to shore and closer to population centers. Public uses on sites usually means there will be more maintenance and costs associated with sites when compared to sites that do not have public uses. When public uses occur on sites, monitoring and enforcement should be used to ensure associated impacts are documented and minimized.

Types of Public Uses

Public uses can be recreational, commercial, subsistence/artisanal and transient in nature. It is, however, relatively common for MCAs to be undertaken in conjunction with public recreational activities (for example, the public educational center at Audubon's Richardson Bay Sanctuary, Figure 15). Typical recreational uses occurring in ocean and coastal areas include, but are not limited to:

- Aesthetic, cultural, and spiritual appreciation
- Beach walking
- Bird watching
- Boating and navigation
- Photography
- Resource extraction (i.e., fishing, shellfishing, hunting, shell/rock collection, seaweed harvesting)
- SCUBA diving
- Sunbathing
- Swimming

Figure 15: Public Use Sign, California

Photo courtesy Wendy Norden

Facilities, infrastructure, and activities that may be required to accommodate recreational uses include, but are not limited to:

- Boardwalks
- Boat rentals and tours
- Interpretive programs
- Mooring buoys
- Picnic areas
- Piers
- Shelters
- Underwater interpretive trails

4.7 Livelihoods

Livelihood activities are typically community-based and include employment and income opportunities that are culturally appropriate, financially feasible, and whose viability is assured by the sustained use of natural resources.[2] Livelihood activities should be centered on efforts that promote healthy marine and coastal ecosystems. When MCA projects are engaged with local communities, lead conservation organizations should seek to maximize direct and indirect employment and income generation opportunities to help replace destructive activities. This local economic input helps reinforce the MCA's long-term sustainability.

Livelihood possibilities include:

- Jobs that flow directly from the MCA and/or depend on the conserved resources, such as rangers, biologists, guides, and field technicians.
- Income opportunities linked to the MCA, particularly those arising from the conserved resources such as sustainable marine products and ecotourism (for example, in Fiji where artificial live rock cultivation replaced natural live rock harvesting, Figure 16).

Figure 16: Artificial Live Rock Collection, Fiji

Photo courtesy University of South Pacific – Fiji

[2] Conservation and Community Investment Forum. 2008. *CCIF MPA Financial Management Tool Manual*. California. 46 pp. Available, May 12, 2009, on-line at: http://ccif.digitalclouds.net/costmodel/

- Jobs that are indirectly associated with the MCA, such as new opportunities at local schools, health facilities, community facilities, and governments that develop because living standards and sustainable business activities have improved.

4.8 Habitat Management

Under ideal circumstances, habitat conditions on MCA sites will be protected or improved during the life of projects. If the habitat is in near pristine condition at the start of a project, then potentially all that is needed is site protection (i.e., prevention of future activities that will degrade the site). If, however, habitat conditions are poor at the start of a project, then some form of on-site or off-site active manipulations may be appropriate to restore, enhance, or create the desired conditions (for example, in Washington State where a hardened shoreline was softened, Figure 17). Invasive and noxious species may need to be eradicated periodically or constantly. On-site and off-site sources of sediment and water quality degradation may need to be identified and removed (or otherwise addressed).

Figure 17: Before and After Shoreline Restoration, Washington

Photos courtesy of Washington Department of Natural Resources

Potentially, the most significant habitat improvement needs may be to work with adjacent upland and watershed property owners to address off-site issues, such as decreasing run-off and unnatural erosion, reducing shoreline armoring, and implementing best management practices for adjacent in-water and shoreline activities (i.e., recreational piers, mooring buoys, and marinas). For example, The Nature Conservancy implements an extensive Community-based Restoration Program in coastal and marine areas of the United States which identifies best management practices for shellfish restoration (see: http://www.nature.org/initiatives/marine/strategies/community.html).

Specific examples of inter-tidal and sub-tidal habitat-related activities include:

- Improving marsh, wetland, seagrass, or riparian communities through re-vegetation, invasive plant control, natural re-contouring of the landscape, removing levees and artificial drainage systems, and related activities.

- Improving natural shellfish beds in estuarine areas through seeding juvenile shellfish, creating adult spawner sanctuaries, and/or introducing appropriate substrate for shellfish settlement and growth.
- Improving native populations of aquatic organisms through re-introductions and control of invasive plant and animal species.
- Working with landowners or managers to restore water clarity, quality, and natural flow of fresh and saltwater.
- Working with water managers to restore natural volumes and timing of freshwater flows through rivers and into estuarine and coastal areas, and to remove or reduce the impacts of barriers to the movement of aquatic organisms in rivers and estuaries.
- Working with coastal and freshwater management authorities to effect ecologically compatible dredging, channelization, shoreline protection, and related activities.

4.9 Maintenance

MCA project areas, which are covered seasonally or diurnally by water, often require site maintenance activities similar to their terrestrial counterparts. The intensity and cost of necessary maintenance activities for ocean and coastal areas depend on several factors, most significantly:

- The proximity of the site to adjacent human activities;
- The proximity of the site to the shoreline; and
- The intensity of public uses on the site.

Sites that are closer to other human uses, closer to the shoreline, or have more public uses will require more maintenance than sites with the opposite characteristics. In general, these site maintenance activities can be divided into two general groups: Frequent Activities and Infrequent Activities.

Frequent Maintenance Activities

Frequent maintenance activities include the typical day-to-day needs of sites. If undertaken consistently, these activities are comparatively inexpensive, relatively easy, and less time-sensitive than the infrequent activities.

Frequent maintenance activities may include, but are not limited to:

- Installing and maintaining in-water boundary markers (i.e., buoys, trees);
- Eradicating noxious plants and animals;
- Maintaining public facilities such as walkways, boardwalks, shelters, fishing piers, and mooring buoys;
- Maintaining monitoring and other scientific equipment;
- Picking up trash left by the public or that drifts onto the property from off-site;
- Posting and maintaining boundary, public information, and exclusionary signage;
- Repairing bank erosion caused by public access; and
- Repairing excavation sites created by public resource extraction (i.e., shellfishing).

Infrequent Maintenance Activities

The need to undertake infrequent maintenance activities is often caused by one-time, unexpected, and potentially traumatic and disruptive events such as oil spills and ship wrecks. While there is little certainty that these events will take place on or affect MCA areas, being prepared for them will reap huge benefits if they do occur. Because these events are often expensive, labor-intensive, and time-sensitive, it is essential that MCA implementers work with government agencies in charge of these events. To do so effectively implementers must understand cleanup processes, laws, and agencies prior to these events.

Infrequent maintenance activities may include, but are not limited to:

- Assisting authorities clean up after oil spills or other contamination events;
- Assisting authorities remove derelict vessels and other abandoned gear; and
- Cleaning up and repairing sites after natural disasters such as storm surges and hurricanes.

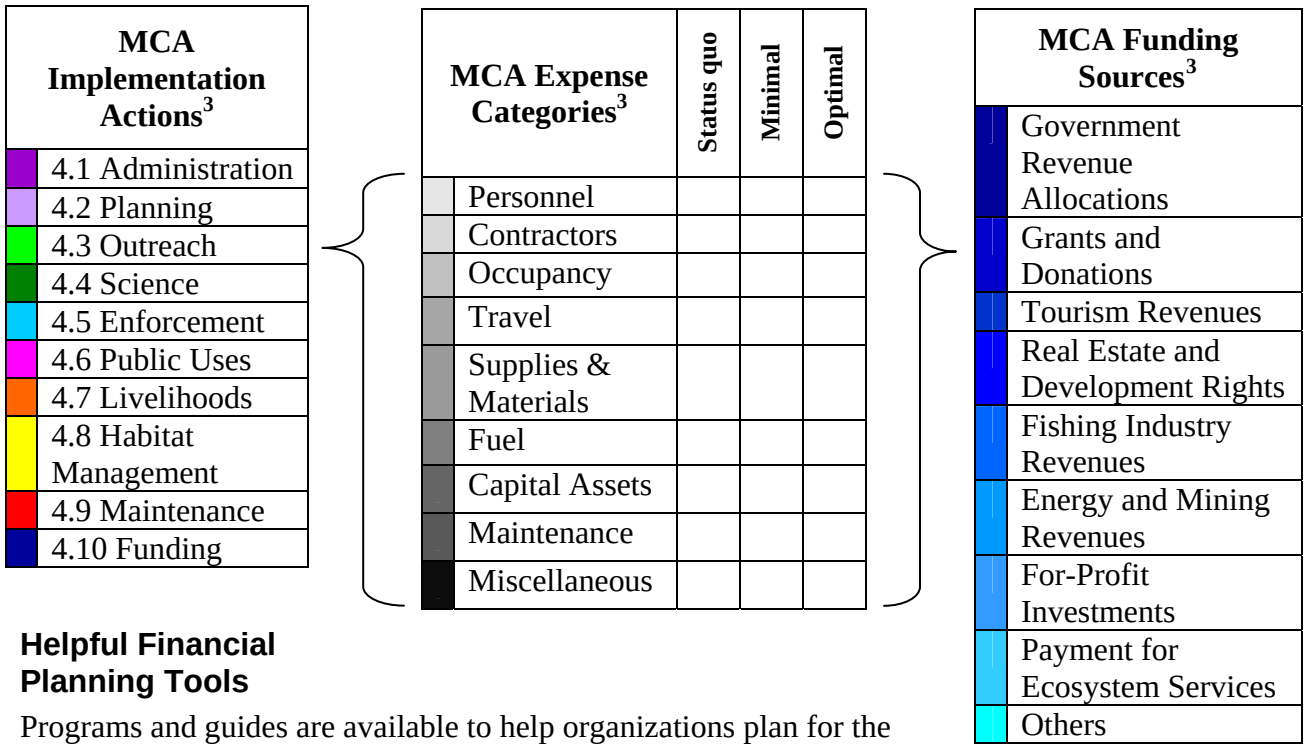
4.10 Funding

6-12 Month Actions: Successful MCAs will need long-term funding sources. Within 6-12 months of the start of implementation activities for the MCA project, if long-term funding has not already been acquired and the agreement appears to be going well, the implementer should begin developing a strategy to find long-term funding and prepare to renegotiate the MCA. Although annual costs may decrease as the start-up, design and capacity-building activities conclude, most MCAs will require sustainable long-term financing to cover ongoing implementation actions.

As illustrated in Figure 18, MCA implementers can develop a detailed, long-term financial needs plan by considering at least three different funding scenarios (status quo, minimal, and optimal) for expense categories related to each implementation action. Funding sources can then be explored for each action, groups of actions, or for the total management program. MCA implementers should be creative in developing sustainable funding sources, potentially combining options to meet the total recurrent needs. Ideas for financing are identified below.

- Create an endowed trust fund such that MCA costs are covered by the interest yield on the endowment capital. This option is the most straightforward and stable.
- Harness ecosystem service payments (e.g., carbon sequestration, watershed protection).
- Convince a business to cover recurrent costs as an offset, (i.e., protection in compensation to the global community for damage they do elsewhere).
- Find a product that can be produced by a local stakeholder, for which a company is willing to pay a "green" or sustainable production price premium based on compliance with the MCA.
- Help communities develop and market a product which provides ongoing benefits, but for which some part of the marketing chain is managed by the lead conservation organization so that benefits remain contingent on satisfying the conditions of the MCA.
- Provide up-front support for income generation in exchange for long-term commitment to use that income to cover MCA costs.

Figure 18: Funding Scenarios



Helpful Financial Planning Tools

Programs and guides are available to help organizations plan for the sustainable funding of long-term, site-specific marine conservation activities. While it is not within the scope of this toolkit to assess and provide access to all such programs and guide, three examples are included below.

- **Financing Marine Conservation**: The World Wildlife Fund developed this guide which presents a menu of over 30 options for financing the conservation of marine biodiversity both within and outside of MPAs. The guide is available at: http://www.conservationfinance.org/Documents/CF_related_papers/FMCfull.pdf
- **MPA Financial Management Tool:** The Conservation and Community Investment Fund developed this tool to practitioners determine the financial needs of marine protected area networks. While some MCA projects may involve MPAs and MPA networks, this tool can likely assist most MCA implementers in determining the long-term, financial needs of MCA projects. See: http://ccif.digitalclouds.net/costmodel/.
- **Property Analysis Record (PAR):** PAR was developed by the Center for Natural Lands Management, Inc., primarily for terrestrial areas, however, it can serve as a guide to help MCA implementers think about and plan for the long-term financial needs of ocean and coastal sites. PAR3 can be purchased at: http://www.cnlm.org/cms/.

[3] Adapted from: Spergel, B. & M. Moye. 2004. *Financing Marine Conservation.* Washington, D.C. WWF Center for Conservation Finance. 76 pp. Available, May 12, 2009, on-line at: http://www.conservationfinance.org/Documents/CF_related_papers/FMCfull.pdf; and from: Conservation and Community Investment Forum. 2008. *CCIF MPA Financial Management Tool Manual*. California. 46 pp. Available, May 12, 2009, on-line at: http://ccif.digitalclouds.net/costmodel/

Appendix 1: MCA Toolkit Content Outline (www.mcatoolkit.org)

- **MCA Toolkit - Home**
- - News
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- New Strategy
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- Conflicts
- Threatened Areas
- Expensive
- Endowments
- Tourism Revenues
- Enforcement
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- Will Not Work
- Definitions
- Conservation
- Leases
- Ownership
- Submerged Lands

- **Field Guide**
- Phase 1: Feasibility Analysis
- 1.1 Conservation Targets
- 1.2 Threats & Strategies
- 1.3 Owners, Managers, Users
- 1.4 Laws and Policies
- 1.5 Organizational Capacity
- 1.6 Stakeholders
- 1.7 Costs and Financing
- 1.8 Reporting
- Phase 2: Engagement
- 2.1 Select Team
- 2.2 Develop Plan
- 2.3 Exchange Ideas
- 2.4 Verify Agreement
- Phase 3: Agreement Design
- 3.1 Commitments
- 3.2 Recipient Benefits
- 3.3 Compliance
- 3.4 Sanctions
- 3.5 Documentation
- 3.6 Regulatory Permits
- 3.7 Final Actions
- Phase 4: Implementation
- 4.1 Administration
- 4.2 Planning
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- 4.4 Science
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- **Country Analyses**
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    - PMCA '08
    - ISLMC '08
    - ISLMC '07

Appendix 2: MCA Costing Primer

MCAs usually involve an exchange of interests or services that are valuable in some way. The articulation and quantification of these values can be difficult. The methods used to determine values of submerged lands, aquatic resources and ecosystem services vary widely and are largely situationally-dependent as several variables can be involved in any given MCA project. The type of acquisition or agreement, the type of land, resource, or service, the degree of exclusivity, the governing policy framework, and the sophistication of markets can all change how values are determined.

Due to the variability in project circumstances and costing methods, the values themselves can also vary widely. For example, in the United States shellfish aquaculture leases can include up-front fees ranging from $0 to $1,000 and on-going annual rents of $2/acre to $150/acre. In one U.S. project, a fee-simple purchase of 13,000 acres (5,260 hectares) of submerged lands, which included all rights and interests except for navigation, cost $63,000, or approximately $4.85/acre.

It is important to recognize that some MCA-related costs are considered proprietary information and, as such, are not available to the public. While this is the prerogative of private project managers, it can also lead to difficulties for other project managers who are trying to find comparable sales information for their valuation exercises. In addition, in some areas and projects, the direct costs, such as lease fees, are considered more-or-less as tokens of good faith when compared to the values attributed to increased local employment opportunities, improved coastal and ocean environments, protection of cultural and social conditions, and establishment and maintenance of close personal relationships. As such, the direct payments derived from MCAs may not completely represent the value that the owners, managers and users actually attribute to the land, resource, or service being acquired or provided.

Valuation techniques and issues to consider for MCA projects include:

- Appraisals
- Socioeconomic analyses
- Policy guidelines
- Negotiations
- Market Values
- Fishing Permits, Vessels and Equipment

Appraisals
When considering fee-simple purchases and less-than fee-simple purchases (i.e., easements, leases, licenses) of submerged lands in countries where land markets and policy frameworks are relatively sophisticated, formal property appraisals may be most appropriate to determine land values. Appraisal methods for submerged lands are often similar to those used for terrestrial lands. The obvious difference is that the submerged lands are permanently or temporarily covered with water and not all property appraisers understand how to account for this difference. As such, it is important to find certified property appraisers that are accustomed to valuing

submerged lands to determine the site's or resource's Fair Market Value (FMV). In the U.S., the Internal Revenue Service requires as part of the charitable status of NGOs that they do not pay more than FMV except to other charitable organizations.

One of the key problems with obtaining reliable appraisal services for lands lying below the high tide line is the lack of directly-applicable market data (the primary source of data for determining FMV). Because of this, the need for a well thought-out and comprehensive scope of work and instructions to the appraiser becomes critical. Among the elements of this are:

- Determination of "Highest and Best Use"
- Restrictions on title and property rights (explicit in the deed or implicit to the land type)
- Hypothetical conditions
- Extraordinary assumptions
- Suitable valuation surrogates
- Stand-alone property value or assemblage value
- Type of appraisal: summary, self-contained, appraisal update
- Identification of authorized users and client/co-clients

Careful attention to the scope of work and instructions to the appraiser is critical to ensure that appropriate values are determined. In addition, one should be careful to ensure that the contracted appraiser can demonstrate that they have prior experience appraising lands lying below the high tide line. Even then, you may need to educate the appraiser on various aspects of such lands, such as boundary principles, legally allowable uses, public trust doctrine considerations, and tribal rights.

U.S. Issues: Essentially, there are two standards for appraisal practice in the United States. The most common is the Uniform Standards of Professional Appraisal Practice (USPAP), under a quasi-governmental organization known as the "Appraisal Institute." This widely accepted standard applies mostly to traditional real estate practice (residential, commercial, and agricultural). While the instructions under USPAP do very little to guide an appraiser in estimating the true value of lands lying below the high tide line, financial institutions and public agencies may insist on its application. Most any licensed appraiser should be familiar with these standards.

The less commonly known standard is the Uniform Appraisal Standards for Federal Land Acquisitions (USFLA, also known as Yellow Book). Far fewer licensed appraisers are proficient with this standard, as it encompasses only a fraction of the work of the appraisal industry. However, this standard goes into much more applicable detail for determining the value of lands lying below the high tide line. Moreover, it is not uncommon that it may be required for land acquisitions involving federal funding sources.

Socioeconomic Analyses

In some cases, such as when land tenure and markets are less sophisticated, when right-holders are not transferring rights to other entities, or when ecosystem services are being provided, formal socio-economic evaluations may be appropriate for determining the value of MCAs. Fundamentally, the private agreement approach to marine conservation acknowledges that

projects may impose two kinds of costs on resource owners, managers and users: an opportunity cost related to foregone income from resource use and the cost of conservation management. For an agreement to be attractive to resource owners, managers and users, the incentives offered usually will have to be at least as great as the sum of these two costs. Technical evaluations such as socioeconomic evaluations should be completed by economists who are well-versed in ocean and coastal issues as well as private agreements.

Policy Guidelines

In some areas, laws, regulations, and agency policies clearly establish the values, or the process to determine the values, of the lands, resources, or ecosystem services that may be subject to MCAs. In these areas, agency representatives may have different lease rental rate determination procedures based on laws, rules, policies, and historical practices. Common procedures include standardized fee structures, percent of market/project value, upland extension, across-the-fence, comparable sales/leases, and negotiation. The agencies may calculate the values themselves and propose them to MCA leads. These values may or may not be subject to further negotiation. Policy guidelines for submerged land rental values can be based on a model-ratio technique associated with upland values. On occasion, lease rent discounts may be given for leases that provide public access or to non-profit organizations that benefit public resources at-large.

Negotiations

Ultimately, determining the value of lands, resources and services services subject to an MCA project may come down to negotiations. In many cases, even when appraisals, socioeconomic analyses, and policy guidelines are used to derive initial values, these values are only used as starting points for negotiations. Under some circumstances, however, such as when markets and policy frameworks are not well developed, negotiations may be the starting and ending points of the value determination process (appraisals, socioeconomic analyses, and policy guidelines may never be applied).

Asymmetries in bargaining power between international conservation organizations and communities in developing countries lead some critics to worry that negotiated deals may unfairly disadvantage local resource owners, managers and users. Other critics worry that providing direct compensation for conservation services will burden conservation organizations with onerous fundraising obligations. In other words, MCAs may be too cheap and they may be too expensive. When negotiating, both concerns must be kept in mind, since inequitable compensation will undermine the longevity of the agreement while exceedingly expensive agreements will be difficult to finance. Moreover, the incentive package must also be designed so as not to overwhelm the capacity of local economies to absorb the investment. An additional complication is that opportunity cost may increase over time, so the MCA and associated financing mechanism must be designed to mitigate this risk or accommodate changes. The key is that MCAs hinge on mutually agreed levels of compensation, arrived at through negotiations based on transparent, participatory stakeholder engagement. In addition, implementers have to recognize that in some cases the approach may simply be too expensive at a given site under prevailing legal, political, social, or economic conditions.

Market Values

Under ideal circumstances, negotiations lead to the determination of fair market value (FMV), which is the price that an interested but not desperate buyer would be willing to pay and an interested but not desperate seller would be willing to accept on the open market assuming a reasonable period of time for an agreement to arise. While subject to negotiation, in most cases FMV for providing a public service such as marine conservation or an ecosystem service such as storm attenuation under MCAs may be (and likely should be) much less than FMV for a commercial marina site.

Fishing Permits, Vessels and Equipment

A relatively recent occurrence is the acquisition of fishing permits, vessels, and equipment for conservation purposes. Interpreting the market value of these assets is complex and may involve appraisals, socioeconomic analyses, policy guidelines, and negotiations. In many cases, fishing vessels may not be of great value without the fishing licenses and quotas assigned to them. Also, while some licenses and quota have considerable value, others have very little. Resources such as the Permit Master Commercial Fish Resource web site (see: http://www.permitmaster.com/) may be helpful to get an initial understanding of market conditions.