

EFFECTIVE COMPLIANCE AND ENFORCEMENT

*A Training Manual to Support Development of
Effective Compliance and Enforcement Programs
for the Pacific Islands Managed and Protected Area
Community (PIMPAC)*

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Introduction

Purpose of this Manual

This manual and the associated training have been developed to help marine protected areas (MPA) managers and practitioners strengthen compliance with their MPA regulations by developing or strengthening Compliance and Enforcement Programs. This includes developing or refining plans to guide Collaborative Compliance and Enforcement Programs and developing or refining Standard Operating Procedures (SOPs) for collaborative field operations.

The manual provides an overview of the critical elements of effective compliance and enforcement programs providing many case studies. It also takes participants through a simple assessment and planning process to support creation of or strengthening of compliance and enforcement program plans. This includes all aspects of an effective compliance and enforcement program from effective MPA rules; enforcement authority and cooperation between key actors; education and interpretative enforcement; field operations for surveillance and enforcement; citations, apprehension and arrests, and prosecution.

The manual is specifically focused on supporting collaborative compliance and enforcement efforts where numerous stakeholder groups work together to strengthen compliance and enforcement. These may include MPA management agencies and their local staff, formal enforcement agencies such as resource enforcement agencies, police, marine police, and military with various roles in MPA and resource enforcement, non-governmental organizations, and local community members who may play key roles in supporting observation and compliance and in some cases are provided with enforcement powers.

What this manual does not provide

This manual and the associated training focus on helping key actors in the compliance and enforcement system understand the components of an effective program and guide them in the process of creating plans to strengthen their programs and SOP to guide field operations.

The manual and training do not provide instruction on specific field and operations skills such as conducting outreach, conducting patrols, boat boarding, use of specific equipment, and managing the use of force. However, the manual does review which skills are critical to an effective enforcement program. Undoubtedly gaining and maintaining skills in these practical field operations is a key element of any effective enforcement program and must be included in the comprehensive Compliance and Enforcement Program Plan and SOP that this manual and training will help to create.

No matter how well constructed an MPA management plan may be, it can only succeed if its rules and regulations are followed. Enforcement should be designed not only to detect and prosecute violators, but also to encourage voluntary compliance.

LEARNING OBJECTIVES

The Learning Objectives for the manual overall are:

1. Understand the role of compliance and enforcement as a tool to manage human use activities and associated impacts on the marine environment
2. Understand the essential components of an effective collaborative MPA Compliance and Enforcement Program
3. Understand the importance of coordination and collaboration between various stakeholders to achieve successful MPA enforcement. Key stakeholder groups include: resource management agencies, the authority responsible for MPA management, enforcement agencies, non-governmental organizations, local communities, various levels of government from local to national and other stakeholders
4. Understand the importance of the cultural context in enforcement
5. Learn considerations and components needed to develop an effective Collaborative Compliance and Enforcement Plan

After reviewing this manual and receiving the associated training participants should be well equipped to both understand the key components of collaborative compliance and enforcement programs and SOPs and lead or assist with the process of developing Program Plans and SOPs for specific MPAs. Whether or not participants will be in a position to lead the Plan and SOP development process will largely depend on their facilitation and planning experience. For experienced facilitators and planners the guide provides everything they need to lead Plan and SOP development. For less experienced facilitators and planners, they will likely need to engage a more experienced facilitator and planner on their team to help lead the Plan and SOP development process.

Understanding the Benefits of Effective Compliance And Enforcement

Background on Effective Collaborative MPA Enforcement

Overview

Marine Protected Areas (MPAs) provide a number of highly important benefits to society. By helping to sustain the health of the marine environment and populations of important species, MPAs provide food for local fishing families; protection from coastal hazards such as storm surge, and flooding; opportunities for tourism and recreation; a high quality healthy environment which is important for quality of life, social activities, and cultural practice; and MPAs offer protection to natural ecosystems which are intrinsically valuable.

Throughout the world, agencies and individuals charged with managing MPAs are striving to ensure that the rules and regulations of MPAs are understood and followed. In some cases, MPA rules are broken because people don't understand them sufficiently, while in other cases individuals may deliberately break MPA rules either because the potential gains outweigh the potential risks or because they disagree with the rules. In either case, an effective Compliance and Enforcement Program is absolutely essential to effective MPA management and ensuring that people comply with the regulations of the MPA.

Establishing and maintaining an effective Compliance and Enforcement Program, presents enormous challenges as MPAs are often large and contain valuable resources that people are motivated to utilize. In many cases management agencies do not have sufficient resources to fully manage or enforce the full extent of the MPA and therefore need to prioritize how they will apply limited resources for the greatest success. Often environmental crimes are not considered as significant as violent crimes or theft and therefore are often not prosecuted adequately to create a future deterrent. In cases of valuable marine resources, organized crime and corruption may limit the effectiveness of enforcement programs.

To address these numerous challenges, many MPA management authorities are finding the best approach is collaboration between the numerous stakeholders, agencies, organizations, and individuals, which can play a key role in compliance and enforcement. Collaborative MPA Compliance and Enforcement Programs and Joint SOP are proving effective in many areas of the world and in Micronesia.

While numerous challenges and obstacles will have to be overcome to achieve compliance and effective enforcement, creation of the Collaborative Plan and Joint SOP are important steps to establishing an organized program designed to achieve the greatest possible success.

Learning Objectives

1. To understand the Elements of an Effective Compliance and Enforcement Program.
2. To understand why it's important to Encourage Compliance and Enforcement by Understanding the Benefits of MPAs

A **marine protected area** (MPA) is any marine area where human activity is managed, and where at least one of the management objectives is conservation-based (biodiversity protection). The marine conservation community has adopted an updated term for "marine protected area" which is "**marine managed area**". At this point they are used interchangeably.

For an MPA to be effective its boundaries and regulations must be complied with and enforced. **Compliance** means "voluntary observance of or obedience to rules" and **Enforcement** means "to compel observance of or obedience to rules." While it is often assumed that low levels of compliance result from inadequate enforcement, compliance is heavily influenced by a number of factors including: 1) the potential economic gain of the illegal activity; 2) the perceived risk of detection; and 3) the severity of the penalties or enforcement used.

When developing an enforcement plan for an MPA, many jurisdictional and practical issues need to be considered and addressed as much as possible. Some of these considerations include:

1. Potentially conflicting policies, laws and implementation programs
2. Lack of political will to implement laws and enforcement programs
3. Incentive systems that promote illegal activities
4. Lack of patrol boats and other basic equipment to conduct monitoring and patrols
5. Lack of trained coastal law enforcement units
6. Lack of clear "lead" agency in coastal law enforcement
7. Slow justice systems with judiciary and prosecutors unfamiliar with fisheries and other laws
8. Lack of public awareness of laws and consequences of illegal activities
9. Slow economic development in coastal areas and lack of livelihood alternatives for those dependent on coastal resources

Components of an Effective Compliance and Enforcement Program (The Enforcement Chain).

An Effective Enforcement Program includes several key elements. Together these elements form what is often referred to as the Enforcement Chain. Each element or link in this chain is critical to the success of the Enforcement Program. The essential elements of an effective enforcement Program include:

1. MPA Regulations and Applicable Laws
2. Enforcement Authority and Coordination
3. Outreach and Encouraging Compliance (Soft Enforcement)
4. Field Operations (Hard Enforcement): including chain of command
5. Coordinating with the Justice System for Effective Prosecution
6. Adaptive Management (How do you know your enforcement program is successful?)
7. Effective Standard Operating Procedures to Guide Field Operations

Below we provide a summary of each of these elements. This manual also includes detailed sessions on each element the chain. The Enforcement Planning process will carefully review the status of each of these elements in your MPA and assist you to identify challenges, solutions, and outcomes that you would like to achieve, and actions and resources needed to help you get there.

Here is a link to an Enforcement Chain Analysis conducted in Hawaii:

[Enforcement Chain Analysis of Aquatic Resource Enforcement on O'ahu Island and North Shore Maui. 12/28/12. Wayne C. Tanaka, Melissa A. Miyashiro, and Koalani L. Kaulukukui for Conservation International Hawaii Fish Trust.](#)

1. Marine Protected Area Rules and Applicable Laws

The objective of any MPA enforcement program is to make sure that people comply with the rules of the MPA as well any broader laws (such as Provincial or National laws), whether voluntarily or as a result of enforcement action.

The characteristics of MPA rules and how they were developed and are communicated has a lot of influence on the level of compliance and the ease of enforcing MPA rules.

Whether or not a rule is consistently complied with or consistently broken has it may have a lot to do with the following:

1. The degree to which local community members and stakeholders have been involved the formulation of the rules, the rules reflect their interests, and local stakeholders perceive benefit from the rules
2. The perceived legitimacy of the rules. Even if stakeholders don't necessarily agree or directly benefit from the rules if they believe the rules are important and legitimate they are more likely to comply.
3. The degree to which local people are aware of and understand the rules.
4. Compliance may also be heavily influenced by **social pressures**. The local values system may encourage people to comply with rules and laws. Likewise, various types of social pressure including alienation, exile, avoidance, distrust, and negative rumors can encourage individual compliance. Importantly, these influences can work in the opposite direction as well. Several cases have been documented where social pressures existed to violate fishery management regulations (Sutinen, Rieser, and Gauvin, 1990).

If community members or other stakeholders are not adequately engaged in the development of the rules or if the rules are directly counter to the interest of a majority of community members it is unlikely that there will be compliance.

The enforceability of rules depends on several factors including:

1. The clarity of the rules. Overly complex rules may not be easy to enforce
2. Rules that have too heavy of a burden of proof are difficult to enforce. For example some rules require that destructive fishing practices be directly observed by enforcement agencies, which is extremely difficult. Alternatively, rules that prohibit

possessing certain fishing gear within the MPA may be easier to enforce and achieve the same intended result of limited destructive fishing

3. The degree to which communities and other stakeholders support the rules and provide information about violations and suspected violations.
4. Laws and rules as well as the penalties and enforcement approaches employed need to be reasonable, carry authority, and follow accepted standards and practices.

Involving enforcement agencies and field officers in the development of MPA rules will help to ensure that rules are as enforceable as possible.

2. Enforcement Authority and Coordination

It is very important to make sure that all agencies and organizations involved in enforcement have clear authority to enforce, know the extent and limits of their authority, and act accordingly.

Likewise, since MPAs are typically large and complex and may cover several interest groups and jurisdictions it is very important to have excellent coordination and formalized collaboration arrangements between various agencies and organizations involved in enforcement. Each group should know their role, the roles of partner agencies, and how these roles relate to each other. Clear authority, roles, and coordination should be carefully established and followed as part of establishing and implementing the Enforcement Program.

This coordination and collaboration should include both governance, management, and operations in the field. Without clarity in authority, roles, and coordination, the MPA Enforcement Program can run into conflicts that can both limit the effectiveness of management and in some cases may actually put enforcement agents in harms way if they don't know their roles and follow them in the field.

3. Outreach and Encouraging Compliance (Soft Enforcement)

If rules are well developed and justified, the majority of local stakeholders will comply with them. However in order to comply, the stakeholders need to be fully aware of the rules and the reasons for them. Raising and maintaining awareness can be one of the single most important elements to encourage compliance. Providing outreach to encourage compliance with MPA rules is often referred to as "Soft" enforcement or as interpretative enforcement.

Well designed MPAs have included local community members and stakeholders in the development of the rules and as a result they become strong partners in providing outreach about the rules to others. Likewise if local community members are aware of the rules and support them, they are more likely to play a strong role in assisting enforcement agencies by reporting on violators.

There are some basic outreach messages that will form the foundation of any outreach effort. These include:

1. Communicating the reasons for the existence of the MPA and how it can benefit various stakeholder groups.
2. Clearly communicating the content of the rules as well as the penalties for breaking the rules.
3. Communicating the rationale for the rules and what benefits they are trying to create. This may include some basic messages about marine ecology such as large female fish make more eggs and therefore if protected in an MPA will provide a sustainable source of fish to be caught outside the MPA.

Additionally, outreach efforts should develop targeted messages tailored to the specific audiences that they are trying to reach such as local community members, tourism operations, illegal fisheries from outside the area, and others.

4. Field Operations (Hard Enforcement)

While all MPA management and enforcement programs, would prefer to achieve voluntary compliance through outreach, there are almost always individuals who will purposely break MPA rules because of the potential economic gains or in some cases because they disagree with the rules.

As pressure on marine resources is growing in the Micronesia region, violations of MPA rules are growing. As a result enforcement efforts that detect, apprehend, and prosecute violators are increasingly important. These types of enforcement actions are typically called “Hard” Enforcement and depend on adequate field operations.

The focus of field enforcement operations is first to understand where violations are happening both by gathering of information (intelligence) from local stakeholders and partner agencies and through active surveillance or field observations. Surveillance can be accomplished both through remote means such as radar and citizen networks and through patrolling. Patrolling in the field provides a deterrent to violations by showing a regular enforcement presence. Once suspected violators are detected, it is important that they are intercepted and if a violation is occurring are apprehended and either cited or arrested. Arrests must follow all standard procedures including appropriate documentation and evidence must be carefully handled to provide the greatest possibility of successful prosecution. If any one of these elements is not correctly carried out, the entire enforcement chain may break down when it comes to the courts.

Safety in the field is of utmost importance and it is critical that field teams have adequate training and equipment and also have an agreed to Joint Standard Operating Procedures (SOPs) to help ensure they conduct their activities in a safe and professional manner.

Developing and implementing a field enforcement system that can adequately address MPA violations can be very challenging as the MPAs are often large and the violators may be dangerous and enforcement resources are almost always limited. As a result, enforcement operations must be as strategic as possible to achieve the greatest possible deterrence with limited resources. A well thought through plan for field operations as well as Joint SOPs to guide actions in the field are keystones of success in Hard Enforcement.

5. Coordinating with the Justice System for Effective Prosecution

A key link the enforcement chain is adequate prosecution and the issuing of penalties that are sufficiently strict to provide a further deterrent to violators.

There are numerous examples throughout the world, where enforcement officers have done everything correctly but violators are let off or issued a light sentence. This can happen for many reasons including Judges and Prosecutors may not be adequately versed in environmental laws and penalties, they may consider these violations minor compared to other crimes, and in the worst cases corruption or coercion may come into play.

In the development of an Enforcement Plan for an MPA it is important to engage with the Judiciary including Judges and Prosecutors so they are aware of the efforts to strengthen compliance and enforcement in the MPA. In many MPAs, trainings have been developed and provided to the Judiciary to help ensure they have a high level of awareness of the environmental laws, MPA rules, and appropriate penalties.

Also, in some parts of the world, violators can be cited on the spot similar to how a speeder is issued a ticket. This often proves a more effective way to deal with environmental crimes.

6. Adaptive Management

Once a Collaborative Enforcement Plan has been developed its very important to carefully track its implementation and periodically make any needed adjustments. The plan should include indicators of success that can be tracked to help ensure the program is being as effective as possible. Establishing set times for all collaborating agencies to review progress in the implementation of the plan and adapt the plan as needed is critical to effective enforcement.

7. Effective Standard Operating Procedures to Guide Field Operations

While a Collaborative Compliance and Enforcement Plan will provide a road map for strengthening and maintaining an effective Enforcement Program, it is still important that there be agreed to standards for how to conduct daily operations in the field. Standard Operating Procedures are used by Law Enforcement agencies around the world to dictate exactly how field activities such as patrols, boat boarding, evidence gathering, documentation, report writing, and other activities should be conducted.

In the case of MPAs where numerous agencies and groups are likely to be involved in field operations, it is important to develop Joint SOPs that spell out the behavior, actions, and conduct that are agreed to by all involved. While an existing agency may have very good SOP for their operations, these may not be appropriate for Joint Field Operations. As a result it is very important that all collaborating agencies participate in the development of Joint SOPs. These Joint SOPs will acknowledge and build on the existing SOPs of participating agencies but will also refine specific guidance to reflect the unique needs of Joint Field Operations.

This manual and the associated training supports MPA programs to develop effective Collaborative Compliance and Enforcement Plans and Joint Standard Operating Procedures for field operations that will spell out an agreed to road map for achieving success in each of the links in the Enforcement Chain.

The Benefits of Marine Protected Areas : Why We Encourage Compliance and Enforcement

Brainstorm- Benefits of MPAs

- With you group, brainstorm a list a of the benefits of MPAs

(20 minutes)

Marine Protected Areas provide numerous benefits locally, nationally, and internationally. If well designed and managed, MPAs maintain the healthy habitats, natural ecosystems, and reproductive populations of key marine species to support long-term sustainable fishing, protection from coastal hazards such as storm surge and flooding, biodiversity conservation, tourism opportunities, and quality of life for local people. By helping to maintain healthy ecosystems, MPAs are also a key to buffering the unpredictable impacts from global climate change (Convention on Biological Diversity).

Unfortunately throughout much of the tropics, coastal marine habitats are being threatened by escalating human population densities, habitat degradation, destructive fishing methods, and over fishing. The resulting degradation of marine ecosystems has greatly increased the need for effective resource management. Marine protected areas (MPAs) are seen as a key management and conservation tool to halt or reverse declines in habitat and fisheries resources.

The fundamental considerations for populations of marine species and marine ecosystems to be healthy and abundant are:

1. Maintaining healthy habitats by restricting activities that damage habitats
2. Making sure that marine species are able to successfully reproduce by ensuring that they grow large and that sufficient breeding populations are maintained in the wild.
3. Helping to make sure each species has sufficient large areas of healthy habitats so that they can grow and reproduce.

If these considerations are met through effective MPA zoning, rules, and enforcement, populations of marine species will be abundant and provide for sustainable fishing, coastal protection, and tourism. Well-designed MPAs protect important reproductive stocks of priority species and marine ecosystems in several ways:

1. By implementing rules against destructive fishing techniques such as bomb fishing, spear fishing on SCUBA, drag netting, and
2. Implementing rules against direct habitat destruction such as mangrove clearing and coral mining.
3. Limiting overly efficient gears that take too many fish to make sure that enough fish remain in the water to reproduce
4. Limiting the numbers of any one species of fish that can be taken
5. Limiting the sizes of fish that can be taken to help ensure large highly reproductive females remain in the water

6. Protecting important reproductive areas such as spawning aggregation sites, nursery areas such as mangroves and seagrass, and sea turtle nesting beaches
7. Establishing marine reserve zones or no take zones, which make sure that populations of fish and ecosystems are undisturbed and can be as productive as possible. These areas are often referred to as fishery replenishment zones because they allow fish and other species to reproduce and thus replenish and maintain the stocks of fish to support sustainable fishing.
8. Limiting disturbances to marine ecosystems caused by tourism and recreational activities.

Marine Reserves Help Fish Recover from Overfishing

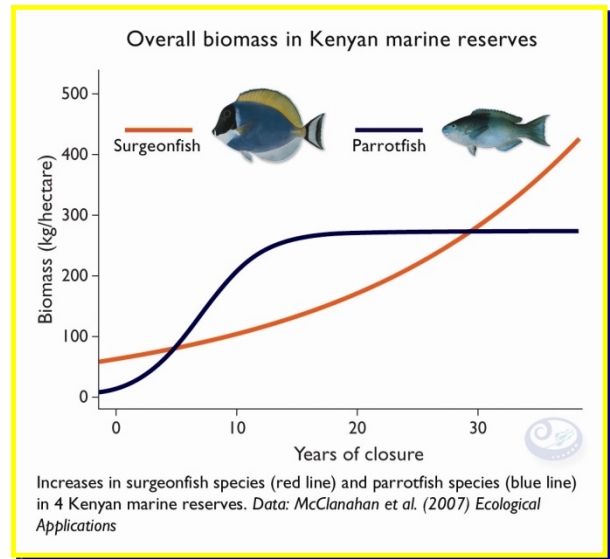
Studies of more than 100 marine reserves show unequivocally that marine reserves almost always increase population numbers of the overfished species, and cause an increase in the average size as well. These changes can be surprisingly rapid.

For example, establishment of the Florida National Keys Marine Sanctuary resulted in measurable increases in fish and lobster biomass and size in just three years.

A global review of the studies revealed that fishes, invertebrates, and seaweeds had the following average increases inside marine reserves:

- **Biomass, or the mass of animals and plants, increased an average of 446%.**
- **Density, or the number of plants or animals in a given area, increased an average of 166%.**
- **Body size of animals increased an average of 28%.**
- **Species diversity, or the number of species, increased an average of 21% in the sample area.**

Heavily fished species often showed the most dramatic increases. Some fished species had more than 1000% higher biomass or density inside marine reserves. Even small changes in species diversity and individual body size are important; these values have less potential for change than biomass or density.



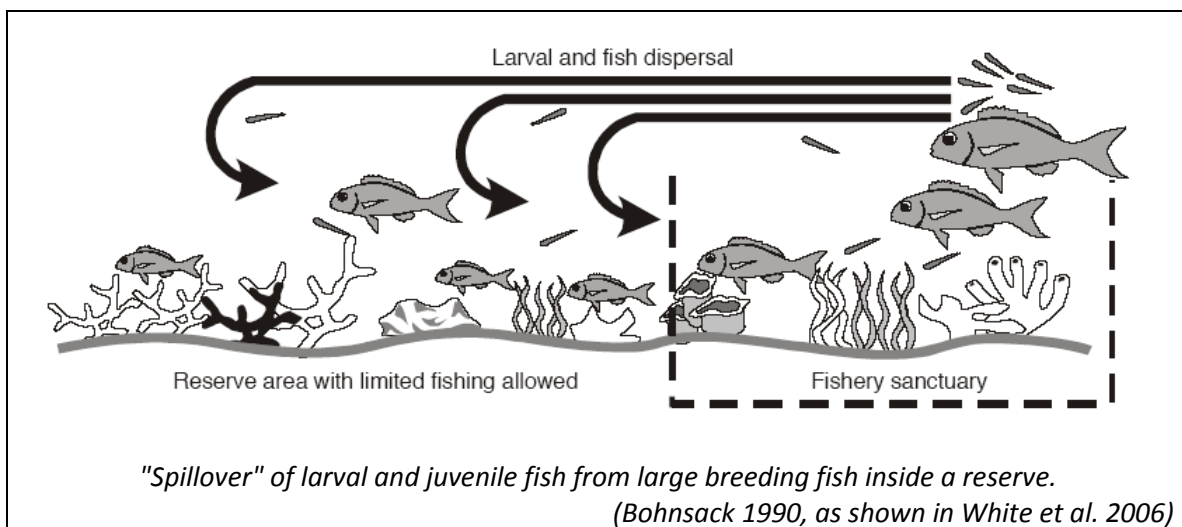
CASE STUDY: LEIGH MARINE RESERVE IN NEW ZEALAND

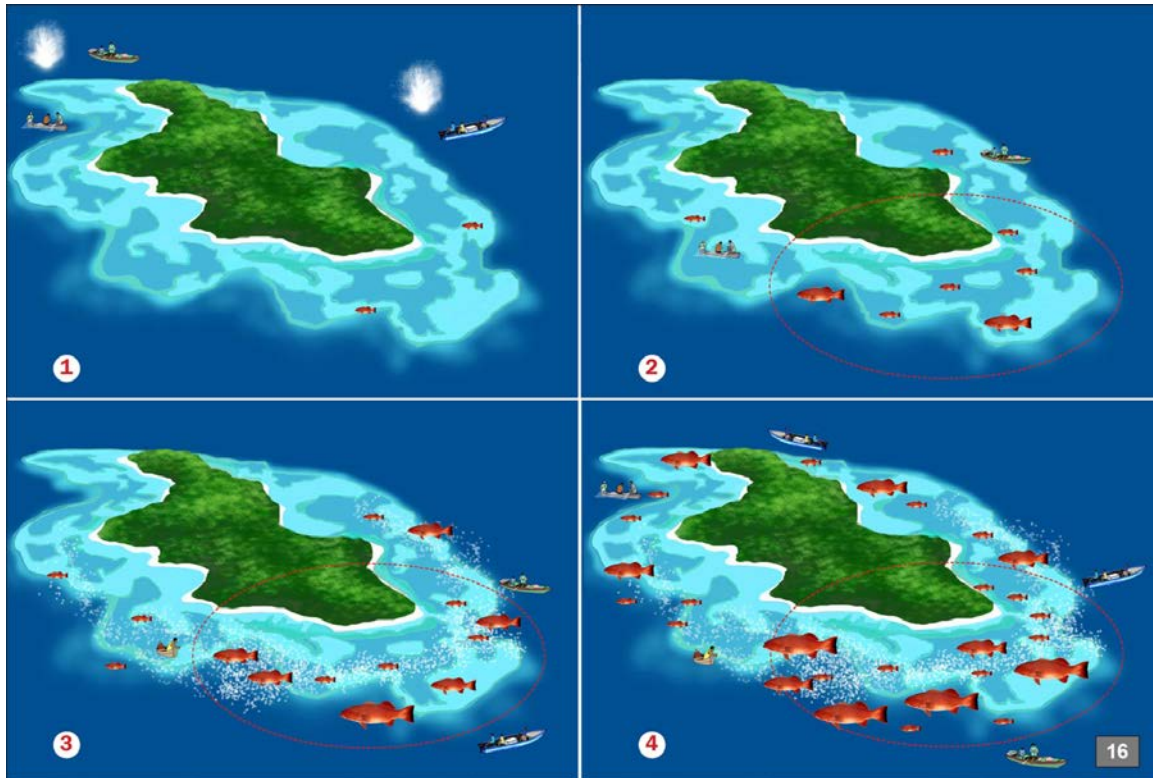
For example, the Leigh Marine Reserve was established in 1977 prohibiting fishing. By the late 1990s, densities of pink snapper (*Pagrus auratus*) had reached 5.8 – 8.7 times higher in the reserve compared to fished areas nearby. Spiny lobster (*Jasus edwardsii*) biomass and size also increased in the Leigh reserve with densities approximately 5 times higher than in fished areas. Results from a broader analysis of New Zealand reserves concluded that at sites greater than 10m deep, they had supported annual rates of growth in spiny lobster biomass of 10.9%, in abundance of 9.5%, and in egg production of 9.1%. (Gell and Roberts 2003)

Source: IUCN.org



One of the great benefits of management zones is that they tend to increase fish size and biomass *outside* the zones as well as inside. The increase in fish biomass and abundance outside reserves occurs via *spillover*, the movement of organisms inside the reserve to outside the reserve. Depending on the size and location of the reserve, this spillover can result in substantial increases in fish yield outside the reserve.



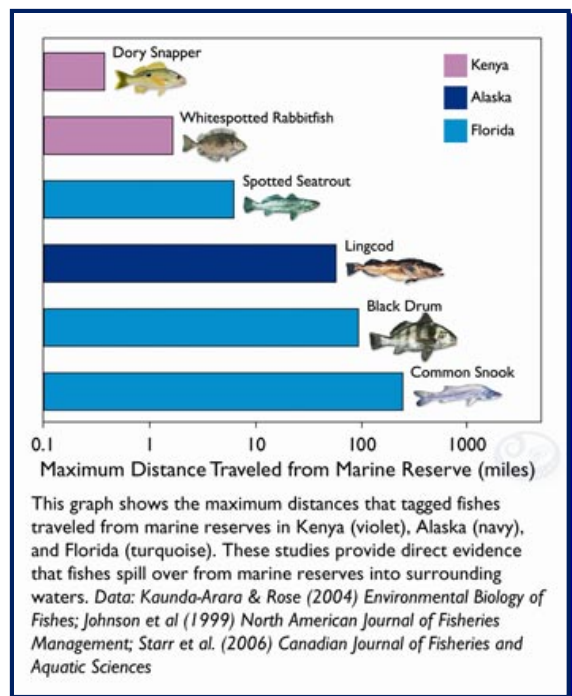


Spillover can happen in two ways: travel of adults, or dispersal of eggs.

Spillover of Adults

Spillover of adult fish occurs when large, mature fish wander just outside the reserve boundary. This is so common that once reserves are established, fishers will commonly begin fishing along the boundary of the reserve - "**fishing the line**" - because the fishing just outside the reserve is so good. Fishing the line can be intense, with dozens of traps or fishers crowded together just outside the reserve. Even so, fishers reported higher catches per unit effort. In St. Lucia, for example, five years after reserves were established, fish biomass *outside* the reserves was three times higher than before protection.

Marine reserves aren't just good for the fish - they're good for the fishers, too.



A powerful example of the effect of reserves on long-lived fish comes from Florida. Most world-record catches of 3 species are now caught just outside Merritt Island National Wildlife Reserve. This indicates that just one small marine reserve now has ***the largest individuals in the world*** of these 3 species. The increase in world records occurred 20 years after the reserve was established - indicating that world-record fish need to be more than 20 years old before they can attain world-record size. Undoubtedly these gigantic fish are also producing enormous quantities of eggs and larvae.

Fully protected reserves usually cause large increases in abundance and size of fish - not just inside the reserve, but outside it too.

CASE STUDY: SUMILON ISLAND

The effectiveness of marine reserves is demonstrated by one of the first tropical reserves, Sumilon Island in Cebu, Philippines. This small island is ringed by a coral reef. The Sumilon Island Marine Sanctuary was established in 1974, preventing fishing along a strip of reef consisting of approximately one-third of the perimeter of the island.

After ten years,

- Coral condition in the reserve improved markedly. Living coral cover more than doubled to 50%.
- Fish abundance in the reserve more than doubled, with the largest increase occurring among those fish targeted by fishers.
- The yearly fish catch for fishers outside the reserve increased from about 14 tons per km² to almost 36 tons per km².

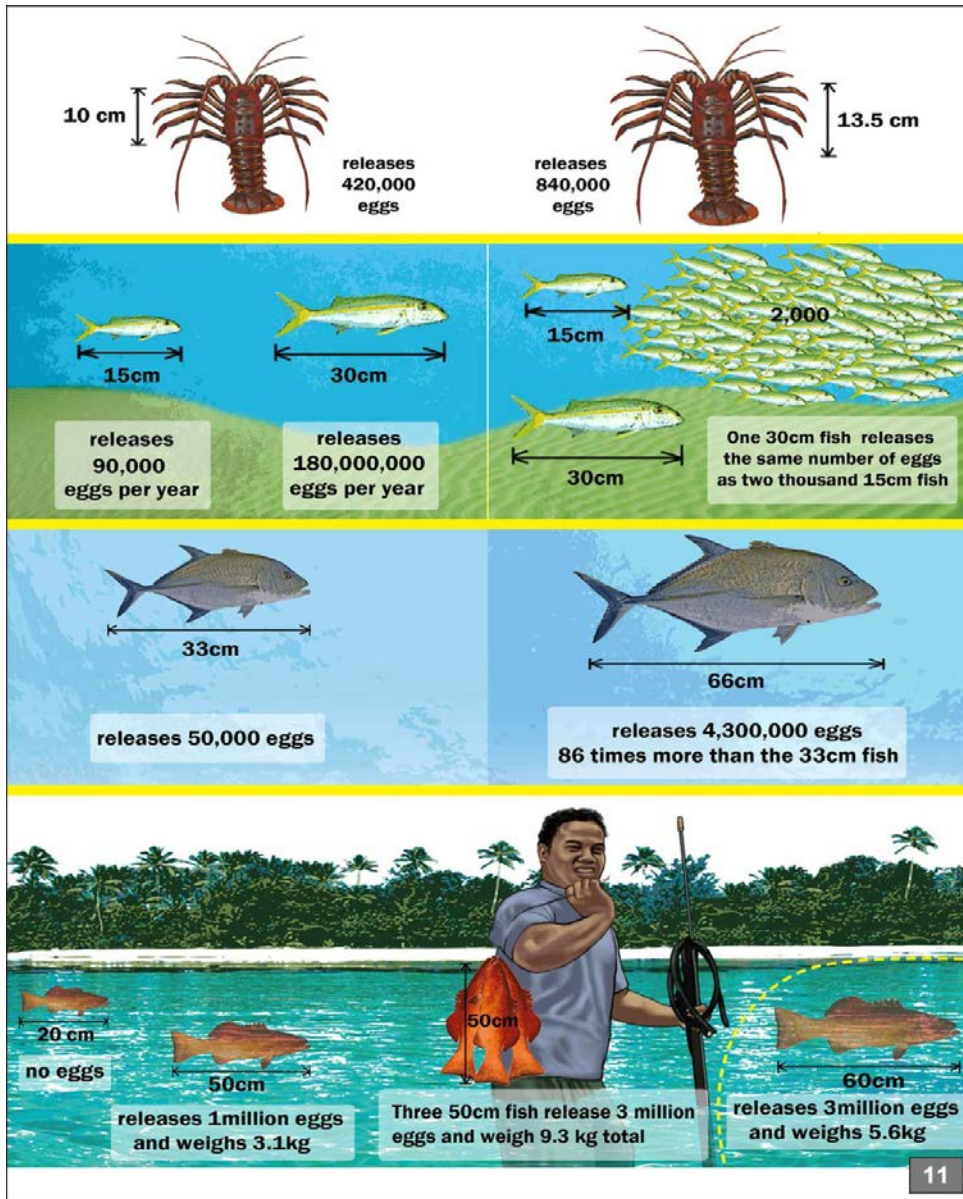
(White et al. 2006)

The enormous increase in fish catch outside the reserve was powerful evidence that fish sanctuaries not only improve reef fisheries inside the reserve, but also can benefit the fishers who are fishing outside the reserve.

Unfortunately, in 1984, fishers once again began to fish inside the Sumilon Island reserve and fish yield again began to decline. **Marine reserves can only be effective in restoring fisheries if the no-take boundaries are respected by local fishers.**

Spillover of Eggs and Larvae

Most fish, algae and invertebrates have a "dispersal phase" during which larvae can travel long distances from their parents. After settlement, some species become sedentary (e.g., coral reef fish), while others with large home ranges continue to travel (e.g., tuna). Eggs and larvae of adults in reserves can drift far outside the reserve boundaries during the dispersal phase. This becomes particularly significant once the reserve has existed long enough to "grow" many large, older female fish, which may take a decade or more. Once these large females are producing eggs, dispersal of eggs and larvae can have substantial benefits for populations outside the reserve, especially for populations that have suffered heavy "recruitment overfishing", i.e. that have lost most of their large, egg-producing females.



Large females make many more eggs and healthier eggs than smaller females; therefore, they will create more babies and increase populations. How many more eggs? Try to guess how many eggs different sized females shown on the flip chart produce each year:

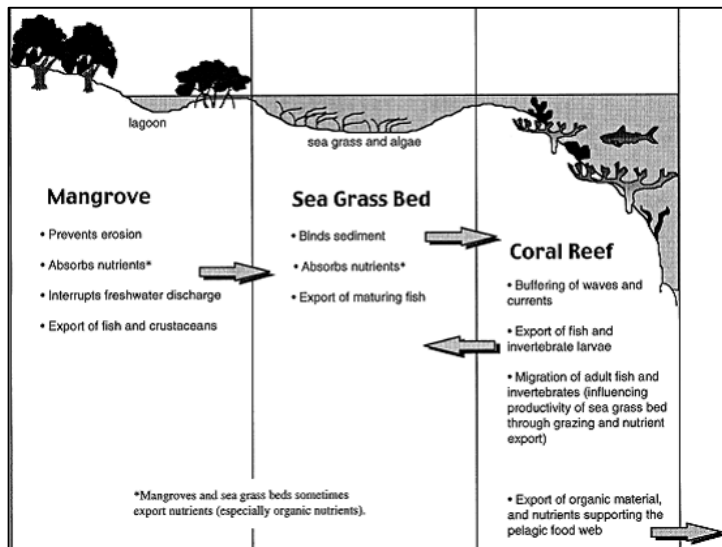
Activity —

1. Cover the numbers of eggs the different sized marine species produce and ask participants to guess.
2. Provide a small prize to those who are the closest to right.

MPAs can Reverse Ecosystem Changes and Protect Ecosystem Services.

In some documented cases, marine reserves have been able to reverse ecosystem changes. In New Zealand, overfishing of spiny lobsters led to an explosion of one of their prey, sea urchins. As a result, kelp forests disappeared. Marine reserves were able to not only protect the spiny lobster, but also were able to regenerate the entire kelp forest ecosystem.

Similarly, on Georges Bank off the northeastern US, the year-round closures to bottom-trawling for cod resulted in a boom in scallop populations as well. Fishers said they had never seen scallops so abundant or so large. The scallop fishery is now the second largest fishery of the region. As ecosystems recover and become more healthy, as a result of MPA management, they provide a number of ecosystem services



As MPAs help to maintain or restore healthy ecosystems, they also help to maintain the services provided to humans by these ecosystems. These can be very significant and important to the survival and quality of life of coastal communities.

Typical ecosystem services provided by healthy ecosystems are summarized in the illustration above. They include:

- Coral reefs protect shorelines from wave energy, provide abundant fish for fishing and tourism, provide spill over of adults and larvae to other areas for fishing and tourism;
- Sea grass beds hold sediment to help maintain clear, clean water, slow wave energy thus helping to protect shorelines, and provide nursery and breeding grounds for marine species that are important to fisheries and tourism.
- Mangroves slow wave energy thus reducing erosion, trap sediment from upland areas thus helping to maintain water quality, and provide critical breeding and nursery grounds for fish thus helping to maintain fish abundance and spillover to support local fisheries and tourism.

Other Beneficial Impacts of Well Designed MPAs

Though we focus in this curriculum on MPAs' effects on restoring fisheries, it is always good to remember that MPAs provide many other benefits as well. MPAs can:

- Increase catch and income for local fishermen.
- Help restore degraded habitats, such as coral reefs that have been physically damaged
- Attract sustainable tourism revenue to the local community
- Help separate incompatible uses by zoning, which can help simplify compliance and enforcement issues.
- serve as educational sites for the local community and for visitors
- Serve as research facilities - particularly by allowing comparisons of protected areas to open-access areas.
- Generate revenue for local communities, through user fees or sustainable tourism
- Encourage the local community to actively participate in conservation and in management of their own fisheries and other coastal uses, particularly during the process of MPA establishment.
- Encourage development of pride in local communities for their local resources.
- Be a natural source of coastal defense to natural disasters and erosion



Source: bios.edu

Limitations of MPAs

Not all species will benefit from establishment of a marine reserve. In fact, there are almost always a few species that decline. Others may show little change. These include:

- **Prey species of the larger, predatory fish that reserves tend to protect. These prey species often decrease in abundance as the predators become more common.**
- **Species that were not overfished outside the reserve may not show any changes.**
- **Highly mobile species with large home ranges much larger than the reserve may not show changes. However, reserves can help pelagic fish if the reserve contains spawning areas or nursery areas.**
- **Long-lived, slow-recruiting species, such as coral and deep-sea fish will be very slow to respond to reserve establishment. They will eventually respond, but recovery may take decades.**

Reserves also may not necessarily protect against all environmental problems, including:

- **Invasive species**
- **Impacts from the watershed**
- **Impacts from the coastal zone**

And last, any reserve with little enforcement will provide little benefit. Reserves only "work" if fishers actually do not fish in them. A sad example occurred in the Philippines in which reserves had produced substantial improvement in local fisheries, but then reserve enforcement collapsed. Fishers immediately rushed in and took all the fish, erasing all the gains that had been made (Palumbi 2002).

Session One: Rules and Policies of the MPA

Overview

The point of any enforcement program is to make sure that stakeholders comply with the rules of the MPA or when they don't comply that they are stopped by enforcement agents before they cause significant damage to the MPA's resources.

MPA Rules are important because they give authorities clear and adequate powers to regulate activities inside the MPA. However, for law enforcement to effectively carry out its roles, the rules themselves must be effective and enforceable. To encourage compliance and enforceability, it is helpful for both local communities and stakeholders and law enforcement agencies to be involved in the development of the rules.

This section reviews some of the basic considerations for developing MPA rules that are effective and enforceable.

LEARNING OBJECTIVES

1. Participants understand the role of community and stakeholder engagement in developing MPA rules to encourage compliance and enforceability.
2. Participants can differentiate between rules and penalties that can be easily enforced or not; and why.

Participation In Rule Development

While rules are developed to meet MPA management goals they are ultimately about managing the way people use the MPA. Understanding how the area is being used and the history of practices is important in developing effective rules.

A community that has played an active role in creation of the MPA is more likely to follow the rules themselves and 'encourage' others to follow the rules. This is particularly true if their needs have been taken into account along with the goals of the MPA managers. Community support leads to a higher level of compliance with the rules and contributes to the ultimate success of the MPA.

Encouraging Community and Stakeholder Participation

Involving community members and other key stakeholders in the development and implementation of the MPA is one of the most important approaches to help encourage support for and compliance with the MPA rules. Community involvement and participation has many

different interpretations and applications, ranging from just informing communities to encouraging full partnership in resource assessments, planning and management. Experience from MPAs around the world has indicated that the greater the involvement of local communities, the more success the MPA will have in achieving compliance by community members.

Developing lines of communication and trust

Engaging stakeholders creates opportunities to discuss priority issues together, thereby building relationships, trust and collaboration via dialogue. Recognizing and working to incorporate the concerns of various stakeholders helps build trust. It creates the space where people feel safe to share ideas, take ownership of the initiatives and solutions, and hold themselves accountable for results.

Incorporating local knowledge and customs

There may be situations where prior or current occupants of protected areas may have knowledge of the local area and the organisms living there that can be particularly helpful for management. This local knowledge may provide useful and complementary understanding for effective protected area management and compliance by surrounding local communities.

Additionally the rights and legitimate customary uses of the resources need to be understood and taken into account in the management system/ Not taking the “legitimate stakeholders” into account when discussing environment and conservation issues leads to serious injustices, ineffective management systems, and loss of biodiversity.

For example some traditional fishing communities have developed and implemented effective community based (village) marine resource management systems that include closed seasons, closed areas, size restrictions, bans on fishing spawning aggregations, sea tenure—exclusive rights to fishing grounds.

These community management approaches need to be taken into consideration in the development of MPA rules. While they may not be sufficient to address all threats such as illegal fishing by foreign boats, these local rules can form a basis for additional MPA rules that will help to address additional threats.

Involving Law Enforcement in Rule Development

Critical steps for law enforcement include interpreting rules, educating MPA users about these rules and outlining the benefits of working within them. These activities help promote appropriate behavior and encourage compliance.

In cases where enforcement action is necessary, one of the fundamental keys to success is that the rules of the MPA are both easy to understand and are enforceable.

For rules to be enforceable the rules need to be clear and unambiguous, so there can be no question or doubt when enforcement officers take action. To help increase the enforceability of the rules, is important to involve enforcement agencies in the rule development. They will have the best perspective on the practicality of various rule options.

There are numerous examples around the world, where law enforcement agencies have not been involved in rule development and the rules are impractical to enforce. It is important to review existing MPA rules with law enforcement and make changes necessary to make the rules as enforceable as possible. When new rules are being developed law enforcement agencies should be part of the entire rule making process.

Case Study: Sasi:

Combining Traditional Marine Management Practices with Contemporary Management in Indonesia

Fishers in Eastern Indonesia follow a practice known as “Sasisen,” or “Sasi” for short. In the Makassar Malay language, this means “to witness” or “a witness.” Sasi places temporary or seasonal restrictions on the theft, harvest or capture of specific natural resources. After the set period of time, the area opens again for harvesting. Sasi has been used for land activities, including harvesting betel nuts and coconuts on plantations, as well as for closing fishing grounds. Many locals take sasi very seriously, as a ritual that goes beyond human law. They believe that invisible spirits watch over lands or sea protected by sasi, and that these spirits will punish violators through sickness or death, even if these thieves are not detected by human law enforcement. (source: Locally Managed Marine Area Network, Collaborative and Community-Based Management of Coral Reefs)

If sasi violators are caught, they’re brought before village councils for punishment. While public humiliation used to be the standard punishment, now violators pay monetary fines. (Collaborative and Community-Based Management of Coral Reefs)

In earlier years, before the 1950s, communities used sasi mostly to regulate subsistence rather than commercial fishing. During this time, human populations were generally small and commercial fishing by Indonesian and foreign boats was very limited. Today, because the marine environment has been greatly stressed by new threats such as bomb fishing, the use of cyanide, and large scale commercial fishing, short-term closures like those under traditional Sasi must be longer to have any measurable effects. The challenge for communities and conservation professional is modernizing sasi into a viable conservation system for the present day.

Sasi is now being effectively combined with permanently closed core zones by communities that partner with the Indonesia Locally Managed Marine Area Foundation. A core zone remains a permanent no take area to enable key species to grow and reproduce, while buffer areas surrounding the core area are considered sasi sites that are periodically opened for harvest using sustainable techniques. This allows communities to integrate their traditional management systems with contemporary approaches that more adequately address the scale of threats they are facing today.

The rules of these managed areas take into account both the traditional Sasi system and contemporary management approaches that are needed to address current threats.

Local communities lead the development of these rules with support of non-governmental organizations. The communities are very happy that their traditional system is being utilized. This system is still highly respected so compliance by the community members is very strong. After outreach and awareness raising, community members also came to understand the need additional rules that address threats that traditional system alone could not adequately address. The communities themselves elected to put these rules, such as permanent “no take areas” in force. As a result, compliance with these rules is also very

Guidelines for Effective Rules

The kinds of activities normally regulated inside a MPA typically include:

1. Access to all or part of a protected area (for example: limiting access to sensitive areas or sacred sites).
2. Use of the area and its resources (for example: limiting the take of certain fish species such as napolean wrasse or restricting tourism to a certain zone);
3. Preventing harmful human activities that threaten the site's conservation objectives (for example: restricting dumping, coral harvesting, mangrove cutting, use of destructive fishing methods such as bombs, spear fishing on scuba, putting limits on total catch allowed).

Guidelines for effective MPA rules

Good rules are simple and clear, limited in number, presented with positive language.

- 1. Rules should be developed with the participation of community members, local stakeholders, and enforcement agencies.*

We have already covered the importance of this point in detail above. We repeat this under the guidelines for effective rules to make sure its considered when you are assessing your MPA rules.

- 2. Rules should support the Objectives of the MPA in a logical way.*

The rules that are developed for an MPA should clearly support achievement of the MPA's objectives. For example, if a MPA has objectives both of conserving biodiversity and supporting community sustainable use of fisheries resources, the rules need to be developed to clearly support these objectives. This may include identifying certain areas where no fishing is allowed so that natural ecosystems processes and biological diversity can existing naturally. But it may also include identifying certain areas where only community members are allowed to fish and only with sustainable methods.

Biologists and Fisheries managers should be consulted to help develop rules that will help to achieve the MPA's objectives. They can advise on, which areas and habitats should be included under protection, how large protected zones should be, which fishing techniques and other activities should be limted and which should be encouraged.

If the rules don't support the objectives of the MPA and the objectives of the MPA do not adequately consider local needs, compliance and enforcement will be extremely difficult.

- 3. Rules should be as specific and simple as possible.*

Compliance is often hindered when laws are overly general or vague. Vague rules such as “don’t pollute” or “do not disturb the wildlife” lead to confusion and poor compliance. In addition overly general rules may grant prosecutors and the courts significant unintended latitude in interpretation, and risk impairing the effectiveness of the intended law.

You should avoid overly complex rules and opt for simplicity whenever possible. Complex rules can confuse MPA users. For example, a no-fishing rule covering half of the MPA is much easier to understand than banning fishing with different gear types in five different areas of the MPA each of which are only identifiable by GPS.

Sometimes there is a need for complex rules. For example a MPA may need to define the extents of its boundaries, or it may need to explain what types of activities can or cannot take place within particular zones. In those cases enforcement agencies should:

- Set rules that are meaningful, specific, and enforceable;
- Provide assistance clarifying and interpreting the law; and
- Provide guidance on what is required to comply.

To improve levels of compliance enforcement agencies should educate MPA users in the context of specific situations, rather than simply posting rules of conduct. For example, during patrols, enforcement officers should conduct outreach activities to educate MPA users about the rules and regulations. This should include providing site-specific information about boundaries, zones, rules, safety, best fishing practices, and proper reef etiquette. Outreach should also educate users how to obtain additional information on MPA rules. This may include providing copies of rules or regulations, website addresses, and contact information for authorities..

Boundaries and Zones

In the case of boundaries and special zones, MPA should develop maps and signs that clearly show these areas. MPA boundaries should be marked in the field marked by clear land marks and as possible markers in the water. GPS positions should be provided to MPA users.

4. Rules should be limited in number.

Fewer rules are also easier for MPA users to remember and for enforcement personnel to enforce. Having a limited number of rules avoids the sense that managers are trying to control users every action. For example, establishing a “no entry” area addressed many different behaviors into one rule; compared with having to list each prohibited action (e.g. no fishing, no cutting of mangroves, no gathering of sea turtle eggs, etc).

That said, the effort to simplify the number of rules should not ignore the social reality of a MPA location. For example, it may be impossible to set up no entry in certain locations where people regularly have to pass through to get to fishing grounds. Rules should be as easy to understand as possible while still reflecting an understanding of the local needs of community members and stakeholders. If they don’t they are more likely to be ignored.

5. Penalties should be fair, incremental, logical, and transparent

In many cases when a MPA agency develops its rules, it will also develop or recommend the penalties for violating the rules. Just like developing effective rules there are a number of considerations when developing penalties. Penalties should be: **Fair, Incremental, Logical, and Transparent.**

Fair: the punishment should “match” the crime. If punishments are considered overly harsh, they may become socially unacceptable and thus difficult to enforce. On the other hand if the penalties are too small, violators will have no incentive to comply when it is more beneficial to the violator to pay the penalty than to comply with the law. For this reason, a balance should be found between the need to deter offenses and the social acceptability of penalties.

As is discussed in Session five, in many cases, prosecutors and judges are not very aware of the nature and severity of environmental crimes. As a result, they may be inclined to levy light penalties that do not serve as adequate deterrence to continued violations. If a violation has a pre-determined range of possible penalties all of which have been determined to serve as an effective deterrent, it makes the judges job easier. For this reason to the degree possible, a schedule or range of possible penalties should be developed for each type of violation ahead of time.

Incremental: penalties or consequences should increase gradually from less severe to more severe depending upon the number or type of violation, so as to give MPA users’ adequate warning before harsh actions are taken.. Repeated violations should result in more severe consequences. In the case of severe violations (e.g. large-scale poaching or deforestation) violators may forfeit their right to move through incremental penalties and receive a major penalty that fits the severity of the crime even if it’s there first violation. (**See Tetepare case study**).

Logical: Effective penalties need to be applied logically and in a way that matches MPA users’ behavior. The punishment should fit the crime. Logical consequences are opportunities arranged to teach appropriate behavior. For example if a fisher is caught illegally fishing within the bounds of an MPA, he receives a warning and his

catch and fishing gear is confiscated (logical). On the other hand if a shrimp farmer caught illegally cutting mangroves and receives a small fine and a long jail sentence (neither logical nor natural).

Transparent: rules should be developed and enforced in a clear and open manner. Officials need to behave in ways that promote understanding and trust. Actions such as secrecy, corruption, nepotism, and coercion are detrimental to effective law enforcement and management efforts. Removing the certainty of punishment or its severity may cause potential violators to re-evaluate the risk of punishment and this can lead to further violations.

Case Study: Tetepare Descendant's Association Member Transgression Penalties

In the Solomon Islands MPAs or Locally Managed Marine Areas (LMMAs) are usually established by communities to protect certain areas, species, or traditional activities. The communities have legal authority to establish and manage LMMAs as well as to impose penalties for poaching and commercial extraction of resources on Tetepare Island. As per the Tetepare Descendant's Association (TDA) Constitution, any commercial resource extraction on Tetepare Island is considered a transgression and is subject to the following penalties.

Poaching (including any harvesting within Tetepare's Marine Protected Area, taking undersized trochus or coconut crabs, taking any turtles or turtle eggs, or breaking any of the TDA's rules about harvesting on Tetepare) is considered to be stealing from all members of the TDA and is subject to the same penalties.

First Offence

- The offender will be given a warning and counseling
- Public notices of offence will be posted in the Munda Office and on Tetepare
- The TDA will raise awareness/undertake counseling with the individual and their family

Second Offence

- The offender must pay a \$500 fine or perform one week of (unpaid) labor for the TDA
- Offenders can choose to pay the fine or work for the TDA for one week. Offenders will provide their own meals during the week they work for the TDA.
- If the offender does not pay the fine or work for one week, TDA benefits are suspended until the fine is paid.

And

- Suspension of TDA benefits for one year for the offender and their family
- Suspended benefits include, but are not limited to:
 - Scholarships
 - Job
 - Participation in sustainable livelihood projects

Third Offence

- Loss of TDA membership for a minimum of two years.
- Reapplication will be considered by the TDA Executive Committee after two years.
- Offence referred to the TDA Executive Committee.

Extraordinary Transgressions

- Offences so serious they are considered extraordinary transgressions will be referred to the Executive Committee, to decide on penalties.

Source: Goby, 2013

Activity 01 — Evaluating Rules And Regulations For Your MPA

1. List three to five of the rules for your MPA.
2. Generally characterize the level of compliance with the rules (and why?)
3. Do your MPA rules meet guidelines outlined for effective rules? If not how can they be improved?
 - Were these MPA rules developed with participation of community members, local stakeholders, and enforcement agencies? Please explain in detail
 - Do the rules support the Objectives of the MPA? Please explain
 - Are the rules specific and simple? Please explain.
 - Are the rules limited in number?
 - Are the penalties fair, incremental, logical, and transparent? Please explain
4. Are there any major issues (challenges) that need to be address in terms of the rules for your MPA?

ALTERNATIVE ACTIVITY

1. A simple exercise (from their seats of determining rules that are good (in terms of being able to enforce them and rules that are not. Can just come up with some examples – and have people write what they think and why – do a show of hands and then have people explain

Session Two: Enforcement Authority, Roles, and Participation

Overview

Understanding your enforcement program authority, roles, and responsibilities, and how your program interacts with other enforcement agencies and stakeholders is extremely important to effectively addressing violations in your site. The legal framework in which natural resource management laws and rules are developed, can be driven by many levels including international, national, and local levels.

In addition to natural resource or MPA laws and rules providing agencies with enforcement authority, key enforcement agencies may have enforcement authority with specific roles and jurisdiction through their own enabling laws or policies. There may also be groups without formal enforcement authority (e.g. community groups, tour operators) who play a key role in supporting enforcement activities (e.g. surveillance and reporting violations). It is critical to understand the authorities and the roles of different agencies or groups as a basis for understanding how these different agencies can best work together to accomplish efficient and effective collaborative enforcement. Collaborative enforcement can provide many benefits because it can provide higher levels of capacity (e.g. human, financial, skills, and knowledge) to increase efficiency in identifying, reporting, and prosecuting violators.

Session Objectives:

1. Understand the importance of clear authority and coordination for effective enforcement
2. Understand the authority and roles of agencies involved in MPA enforcement
3. Understand mechanisms for coordinating key agencies in enforcement
4. Analyze issues with weak or overlapping authorities and misuse of authority
5. Planning to Strengthen Enforcement Authority, Roles, and Coordination
6. Set a foundation for developing clear collaboration and coordination between key enforcement agencies and stakeholders in MPAs in Micronesia

The Foundations of Enforcement Authority

In most MPAs there is typically a hierarchy of policies that govern what can or can't be done in the MPA. These policies may start at the community level at the bottom, and moving up the district or Regency level, then the province, national and finally at the international level. If countries sign on to international treaties, they must also have laws that are consistent with those treaties. For example, many countries have signed on to the Convention on International Trade of Endangered Species (CITES). This treaty has signed by 151 states that agree to prohibit or limit the trade of thousands of species that are in danger of overexploitation. While these agreements are made at high government levels, the enforcement of them is often dependent on cooperation and coordination of local enforcement programs and even communities.

Similarly state, province, or community level laws or rules have to be consistent with national level laws. While the "lower tiered" laws can provide stronger protections than those higher

than them, they cannot be less stringent. For example, if a national law prohibits the taking of certain species in certain seasons, local laws cannot allow for the taking of that species in that season, they could however completely prohibit the taking of the species.

It is through these tiered policy frameworks that various enforcement programs are developed and provided the authority to enforce specific laws. However, in most cases the individual enforcement agencies also need clear policies that provide them with enforcement powers and clearly identify their roles and responsibilities. With the wide variety of policy frameworks regarding natural resource management, there often come a wide variety of agencies that are responsible for enforcing the laws at a national and local level (even within one site). For this reason, coordination and communication among various agencies is critical.

In addition to the several agencies that are involved in enforcing several different laws and policy's, there are additional stakeholders that are important for effective enforcement and encouraging compliance. An effective enforcement program includes a series of "links" or actions along the "enforcement chain". Each of the actions can involve different players who carry out different roles.

This manual is organized around these links in the Enforcement Chain which include:

- 1) Effective MPA Rules and Regulations,
- 2) Clear Enforcement Authority and Coordination
- 3) Outreach and Encouraging Compliance
- 4) Field Operations including Surveillance and Patrols
- 5) Coordination with the Judiciary for Effective Prosecution

Important Groups and Their Roles in the Enforcement Chain

There are different agencies and stakeholders involved in each of the different links of the enforcement chain including 1) community groups/stewards, 2) community enforcement officers, 3) several enforcement agencies, 4) the judicial system including prosecutors. The authority to enforce dictates which groups are involved in which step of the process and what roles they play. The authority and roles can vary based on the local governance context and the type of violation. In some cases, prosecution would be carried out through formal court systems while in other cases, community courts may have authority to prosecute violations. The following is a general list of various agencies and stakeholders that may be involved in enforcement activities.

1. **Community groups / stewards** – the general public can play an important role in effective enforcement as the "eyes and ears" at the site. It is highly likely that local residents who use a site regularly will at some point be present to witness a violation as it occurs or before something happens (e.g. illegal fishing within a no-take zone). As such, community members can play a critical role in the enforcement chain by contacting the proper enforcement authority that can take action.

Some community groups are highly organized and have dedicated volunteers who carry out surveillance (and other activities) at the site. It is best if these groups have an

agreement with the legal enforcement agency to detail how they will work together. This can be done through a Memorandum of Agreement to cover policy aspects of collaboration as well as a Joint Standard Operating Procedure (SOP) to detail out the roles and responsibilities of each group in field operations. The Joint SOP should provide these groups with a clear understanding of the roles of the volunteers on what they can and cannot do in case of a violation, as well as having a clear “chain of command” that describes how they should communicate with the enforcement authority.

2. **Community Enforcement Officers** – In other cases, there are community members who have enforcement authority or are deputized to enforce certain rules. The type of enforcement actions that can be taken by community enforcement officers can vary depending on their enforcement authority. In some countries, there is no legal basis for community members to be granted with enforcement powers. In these cases community members may engage to assist enforcement agencies in stewardship through agreements such as those discussed above. In other countries, such as in the Philippines community members can be deputized and can carry out certain enforcement actions such as issuing citations. An example of this can be found in the Philippines with the Bantay Dagat, or Sea Watch program. Bantay Dagat members are often hired by their community to conduct patrols and have limited enforcement authority including the ability to issue citations and detain violators who are then turned over to police. In other cases, community officers will be fully trained and provided with authority to arrest violators. An example of this is found in Palau where the national police academy trained community officers for Hatohobei State and they were provided with full police powers.

It is critical for enforcement authority to be clearly defined and understood by community officers. Enforcement authority should be driven by specific rules or laws that authorize community members to carry out enforcement actions and be backed by higher level laws or rules where necessary. For example, in some instances regional or national laws may be required to provide legal authority for community enforcement officers. It is critical that community members whether volunteers or empowered with enforcement authorities never exceed their authority. This can both endanger them and open them to legal or social challenges that can negatively impact both the enforcement program as well as the MPA overall.

3. **Enforcement Agencies** – Enforcement agencies are usually given legal enforcement authority through specific laws and policies. Some agencies may only be provided “regulatory enforcement” authority, which enables them to enforce specific natural resource rules and regulations but only issue citations. Other agencies may have full police powers and have the authority to arrest violators. In either case, agencies with the authority to enforce are typically provided this ability through specific laws or policies that dictate how they are allowed to address violations. Many enforcement agencies around the world also have administrative protocols to address violations through hearing or citations. These approaches can be effective as they can be dealt with directly within the agency and often in the field at the time of the violation. This is similar to how a traffic officer can write a speeding ticket at the time of a violation. However, enforcement authority must provide a mechanism by which these agencies can resolve these violations.

4. **Judicial System** – the judicial system plays a significant role in enforcement. Any violations that are taken to court require the judicial system to be engaged and have the capacity and willingness to prosecute violations. Very often, natural resource management violations are considered “minor” offenses in comparison to other issues facing the judicial system such as domestic violence, murder, robbery, etc. As such, there is often a lack of engagement by the judicial system to prosecute and in some cases penalties may not be significant enough to deter further violations. Enforcement programs must look for opportunities to strengthen partnerships and capacity of the judicial system. This may include conducting outreach with judges and attorneys in the system. Alternately, enforcement programs can consider strengthening other ways in which violations can be addressed both through citations and by strengthening the severity of penalties.

As part of developing an effective collaborative enforcement program, it is very important to identify which agencies or group have enforcement authority, what role they play specifically in the field, how these agencies coordinate, and any gaps or challenges in these areas that need to be addressed to strengthen the enforcement program. The following worksheets will help your team to identify this important information.

Activity 02: Identifying Enforcement Authority and Roles in the MPA

Purpose

This exercise will help all agencies involved in collaborative enforcement to understand one another's enforcement authority and roles. In some cases the authority and roles of each agency or group may not be completely clear which points to a need to develop actions in the planning process that clarify this information. It is important to the effectiveness of the collaborative enforcement program that these elements be clarified and agreed to within a reasonable timeframe. The next exercise will further move into how these groups collaborate and ways to improve collaboration.

Instructions

1. Draw the following table on a piece of flipchart paper.

Agency or Group	Authority	Role in Field Enforcement
Strengths & Challenges with Enforcement Authority:		

2. In the first column of the table, identify all agencies or group involved in enforcing the MPA. Be sure to consider groups with direct enforcement authority (e.g. Fisheries Agencies, Boating Safety, Police, Judiciary System), those that can support enforcement (e.g. Community Watch Groups, Traditional Community Enforcement Mechanisms, Tourism Operators, Fishing Organizations). Also include agencies or groups who have authority to enforce violations of adjacent land based activities that could have an impact on the site (e.g. Coastal Zone Management Agencies, Environmental Protection Agencies, etc)
3. For each group, move through the table to identify and describe each groups enforcement authority, the specific policies that have provided for this authority (if any), and their typical role in enforcement in the field (e.g. issuing citations, conducting outreach, enforcing land based pollution violations, etc).
4. Using the information also collected in your assessment exercise, identify any gaps or challenges identified with enforcement authority of the various agencies/groups. Consider if each agency/group has clear and sufficient authority to carry out their role in enforcing violations that occur in your MPA. Write the gaps/challenges in the last row of the table.

Importance and Benefits of Coordination and Collaboration of the Various Groups

Because the enforcement chain involves so many different groups with different authority and roles, it is critical that these groups have a clear way of communicating, coordinating, and collaborating. This means they are well organized and working together to achieve the goal of effective enforcement of the MPA. Ideally the various groups should develop a “joint standard operating procedure” or other mechanism (described further below) which develops an agreed upon protocol that each group will follow so that enforcement authority of each group is understood and how they will work together is clearly defined. It is also possible that enabling authority does not clearly direct an agency to what role it should play in collaborative enforcement. In these cases, the roles of different agencies will need to be clarified and agreed to in a collaborative process that involves all key agencies. It is important to the effectiveness of the collaborative enforcement program that these elements be clarified and agreed to within a reasonable timeframe.

Coordination and collaboration is especially important when a violation occurs. The witness of a violation must have a good understanding of how to coordinate with the proper enforcement authority if they themselves do not have the ability to enforce. At a minimum, all agencies/groups should understand who has authority to enforce which rules/laws at the site and the best way to contact them in the case of a violation. For example, if someone from the general public witnesses a violation, they need to know which agency to contact and the best way to communicate with them to get the most efficient response.

Further, coordination and collaboration can provide many benefits and ultimately improve enforcement effectiveness. These benefits can occur if agencies/groups know what they themselves can do to support the enforcement authority so that the violations are effectively addressed and ultimately prevented. For example, someone from the general public can contact the enforcement authority upon witnessing a violation. Additionally, they may be able to write down details on the violation from a safe distance; such as where it is occurring, what time it is happening, how many people are involved, and specifically what violation is happening. This important information may then be further used as evidence to support the enforcement authority’s case during prosecution.

The Importance of Clear Enforcement Authority: Case Study from Palau

In the Pacific Island nation of Palau a team of enforcement trainers started working with Conservation Officers from several of Palau's 16 States to help them build their field enforcement skills, including activities like self defense, boat boarding, collecting evidence, and other key enforcement skills. During this process, the trainers asked the Conservation Officers to develop an enforcement plan. In the planning it was identified that while the Officers had a defacto enforcement role that was accepted socially by people in Palau, in some States there was no clear enabling legislation to give them enforcement authority.

Likewise, the Officers did not have clear job descriptions or Standard Operating Procedures (SOPs) to guide their activities in the field. This lack of clear and defensible authority combined with limited guidance on field operations and procedures put the officers in a vulnerable position in which their actions could be challenged by the public and in the worst case could result in legal action against them. Fortunately this situation has been resolved and necessary legislation, job descriptions, and SOPs have been developed, resolving this potentially problematic situation. This example illustrates that each agency or group that is involved in enforcement needs both clear authority as well as a good understanding of their roles and responsibilities as well as acceptable SOPs for executing their roles and responsibilities in the field. They also need to understand and agree to how they will coordinate with other agencies and groups that have authority and/or play a role in compliance and enforcement. Without these clear elements, Enforcement Officers are vulnerable both socially and legally.

Approaches for Collaboration of Key Agencies in Enforcement

In addition to understanding enforcement authority and roles, it is critical to have mechanisms in place to clearly describe how agencies/stakeholders will work together. There are several mechanisms that can be used to strengthen coordination and collaboration of agencies and groups involved in enforcement of the MPA. These include:

1. **Information/Skills Sharing:** At a minimum, groups involved supporting enforcement of the MPA can share information and skills. For example, if one group has capacity to write good violation reports and another agency does not have this skill, a workshop could be held for the first group to teach this skill to the other. Documents and materials (e.g. templates for report writing) could also be shared. This option requires little to no budget but a high motivation and willingness to organize opportunities that allow for the exchange of this information.
2. **Cross-agency Training** - In addition to sharing information and skills, groups can work together to develop capacity of all groups through cross-agency training. Training together can open up opportunities for discussions among various groups and support better coordination as groups gain a better understanding of roles and best approaches for working together. This can include various levels of enforcement agencies including federal, state, local groups, depending on the training needs. For example, federal and state level agencies may need tactical skill training on safety protocol using weapons and seek combined training on these skills. Other skills such as effective communication to stakeholders may apply to all agencies/groups involved at the site and therefore could benefit from opening training to everyone.
3. **Memorandum of Understanding or Joint Enforcement Agreements** - Agreements among agencies or groups can help to ensure that enforcement authority, roles, and coordination is clearly defined and understood by those involved. In most cases, if agencies and groups do not have enforcement authority at an MPA but will be involved in some way in enforcement activities, an MOU will be required. This will likely need to go through a legal process with the enforcement authority to ensure that activities do not violate any laws or overstep boundaries. As such MOUs are an important mechanism for ensuring that all agencies and groups are clear about their roles and are legally backed to carry out their defined activities. Similarly joint enforcement agreements among two agencies with authority to enforce can help to ensure that there is no duplication of efforts, and activities are carried out as efficiently as possible.
4. **Joint Enforcement Planning and Standard Operating Procedures** – Each agency or group should have their own enforcement plan to guide their activities and/or standard operating procedures, which dictates specifically what they can and cannot do in the field. However, it is ideal for these groups to also share their plans and SOP's and develop some joint planning activities and SOPs. This can help to make enforcement programs as efficient as possible as roles and responsibilities are clearly defined and ways of communicating and coordinating are clearly understood and agreed upon.

5. **Joint Enforcement Field Operations** - In addition to joint planning, various agencies may also carry out field activities together. This can be specifically advantageous when human capacity is low and combining efforts can support more patrols and field activity. Additionally this approach can help to share expensive equipment or approaches to achieve joint goals. For example, MPA programs may not have a boat to carry out on the water patrols. Boating Safety may not have funds to support outreach on rules and regulations. However, through joint efforts, MPA enforcement staff could patrol the MPA with Boating Safety operations. And Boating Safety could share rules and regulations through MPA outreach programs. In this way, both programs benefit by collaboration.

6. **Task Forcing:** A task force is a group that is created for a specific “task” or purpose and is usually developed through a governmental agency. For example, a task force could be developed by a national or state government agency to develop a coordinated enforcement approach of a newly developed protected area network (PAN). In this case, the government agency would coordinate the various agencies and groups that should be involved in enforcement of the PAN and develop a regular schedule of meetings of all parties. (see Kosrae Case Study box).

7. **Committees** – Committees are smaller sub-groups of a larger coordinated body (e.g. task force) that can be developed to address specific topics or emerging needs. For example, if frequent violations begin occurring in MPAs from a specific gear type or group of poachers a committee may be formed to help develop joint enforcement solutions to addressing these issues. Sub-committees may be short term and be dissolved after the topic is addressed

8. **Executive Order or High Level Directive** – A high level order or directive can ensure that coordination among agencies occurs and is continued. Sometimes, these are necessary where political will or historical approaches to enforcement did not allow of coordination among agencies. While high level directives can be beneficial, they can also be perceived as “top down” or “forced coordination” which may cause resistance or lack of buy in to the process. As such, this approach should aim to encourage buy in among the various agencies by fostering participatory processes that allow them to shape the direction of the collaboration if possible.

Kosrae Conservation and Enforcement Taskforce

In the central Pacific nation the Federated States of Micronesia, in Kosrae State, five of the State’s government agencies and non-government organizations have joined together to form the Kosrae Conservation and Enforcement Taskforce. The task force aims to increase cooperation and coordination between the agencies to ensure compliance with Kosrae’s environmental laws and to sustainably manage and utilize the unique environment and natural resources with which the State has been bestowed. The taskforce was formed after the parties recognized that an effective cooperative partnership and fair and reasonable enforcement of the laws of Kosrae State are necessary to ensure the conservation and

preservation of the State's environment and to achieve the State's commitment to the Micronesia Challenge.

The Challenge aims to effectively conserve at least 30 percent of the near-shore marine environment and 20 percent of the terrestrial environment across Micronesia by 2020. A key component of the Challenge is the creation of community identified and enforced marine and terrestrial protected areas.

The agencies involved are:
- the Office of Public Safety
- Kosrae Island Resource Management Authority - DREA's Division of Fisheries and Marine Resources - Kosrae Conservation and Safety Organization - Yela Environment Landowners Authority.

The agreement was signed by the participating municipal governments, to join the taskforce in the future. From: <http://www.kosrae-environment.org/wordpress/conservation-and-enforcement-taskforce-created/>

Activity 03: Understanding and Strengthening Mechanisms to Support Effective Enforcement Collaboration

Purpose

This exercise will help the group discuss how communication and coordination among the various agencies and groups currently exists and how it can be improved.

Instructions

1. Draw the following table on a piece of flipchart paper.

Current Collaboration Mechanisms	What Agencies/Groups are Involved in this Collaboration Mechanism and How?
Strengths & Challenges	

2. In the first column of the table, list all the mechanisms in place to support effective collaboration. Be sure to review the list on pages 9 & 10, and include all mechanisms that are appropriate, in addition to ones not listed.
3. In the second column list which agencies are involved in that collaboration mechanism and how they collaborate.
4. Using the information also collected in your assessment exercise, identify
 - a. Challenges: Challenges can include both gaps in your program such as coordination mechanisms do you need to have don't currently have as well as challenges do you have with existing coordination mechanisms?

List these in the final Row of the Table

- Budget
- Coordinator
- Assessments
- Mission statement
- MOU's
- Meeting schedules
- Reporting on the network – press releases/ etc.
- Facilitated Process support (worksheets)
 - To help generate discussion possibly with different levels
 - Level one: no networking is happening now
 - Level two: existing networking is occurring but how to make it better

- E.g. Individual Level – give them a card
 - One side- what training you have
 - Other side – what you need
 - Use these cards to match skills and needs among the group -have a meeting of all members of the network (show common trends and needs, and who can support those needs)

Session Four: Outreach and Community Engagement

Overview

The ultimate goal of effective enforcement and compliance programs is to stop violations before they occur. To do this, a strong emphasis must be placed on influencing behavior of the users of the MPA to ensure they understand the rules of the site, have the skills to comply with those rules, have the will to comply and if all else fails are deterred from violating from strong enforcement actions. Outreach and engagement to encourage compliance can occur at all levels and among all of the groups involved including enforcement officers, local communities, tour operators and their staff, tourists who visit the MPA sites, and MPA staff themselves.

Session Objectives

1. Understand the role of outreach as a tool to encourage compliance and sustainable use of the marine environment;
2. Develop effective messaging and outreach strategies for different stakeholder groups; (e.g., community, fishers, government officials, and judiciary)
3. Understand how to carry out community engagement activities that help encourage compliance and support enforcement.

Compliance or Soft Enforcement

Effective enforcement always hinges on the support of the local communities, user groups and government officials, but people will not support something that they do not know or do not understand. Careful thought should be given to developing an outreach and community engagement component of your enforcement program, especially in MPAs where this is a specific objective.

Soft Enforcement refers to approaches geared towards encouraging widespread voluntary compliance with laws, rules and regulations. This contrasts with **traditional enforcement** that is often called '**hard**' or negative enforcement. Hard enforcement focuses on punishing illegal

behavior through the legal system with uniformed officers.

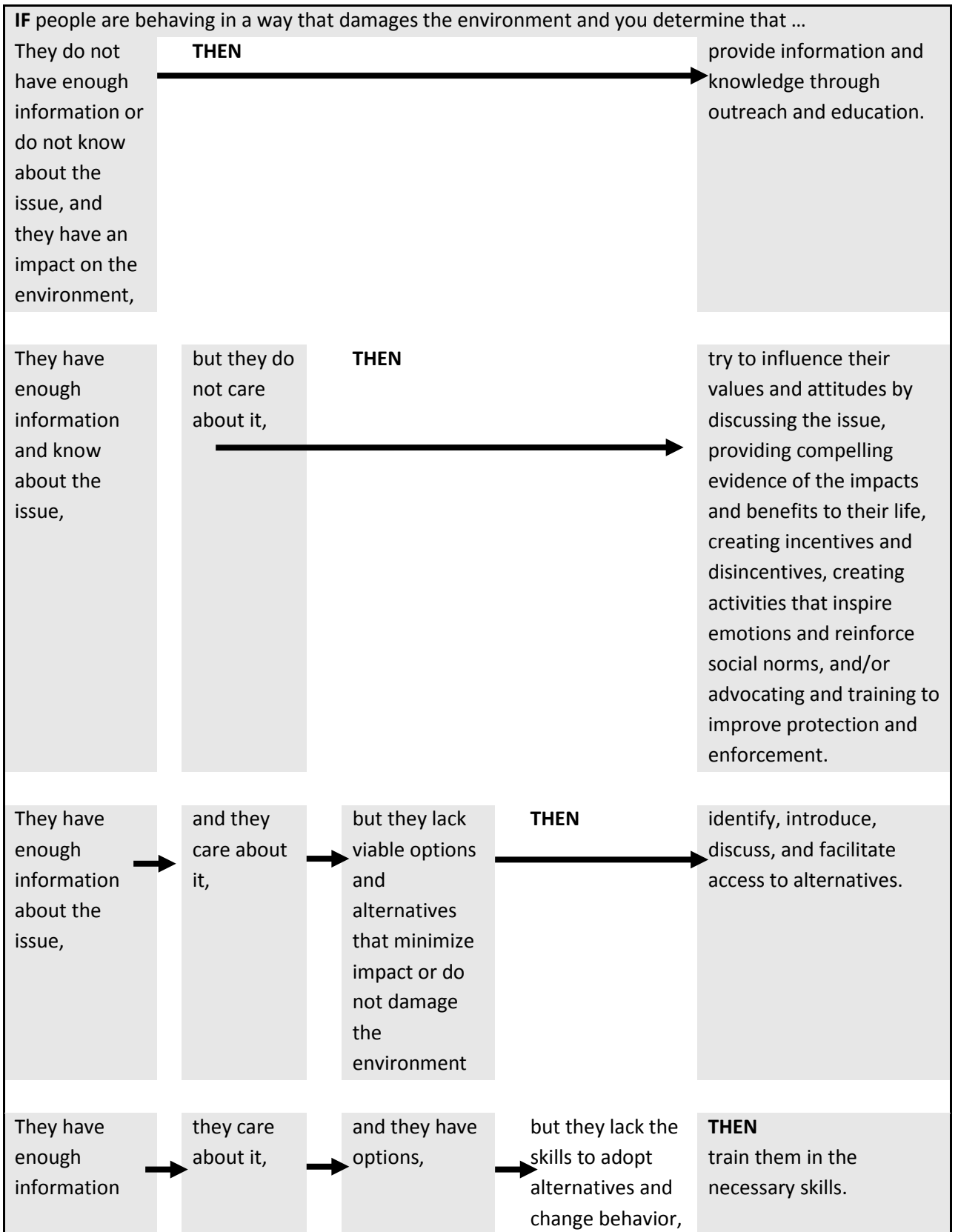
Effective law enforcement relies on a framework that incorporates both prosecution of violations with law as well as awareness building of why the laws are in place and the benefits achieved from following, or complying with them. There are several facets to soft enforcement; in this session we will discuss:

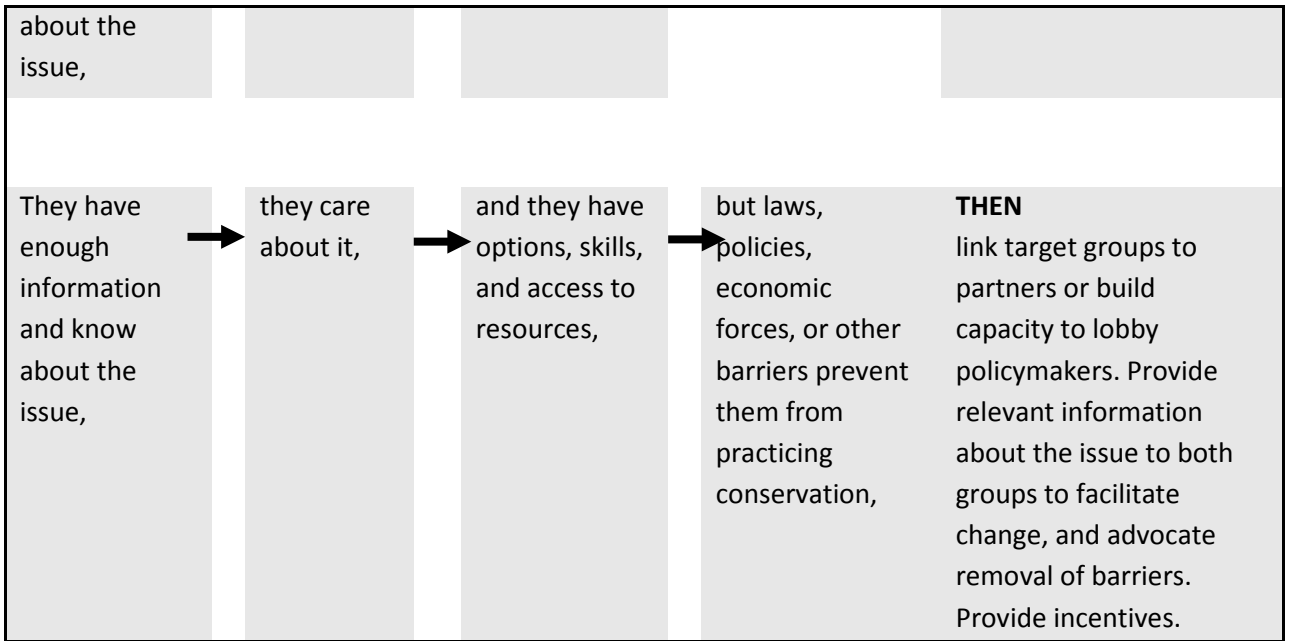
1. **Crafting Effective Outreach Messages to Encourage Compliance:** Since managing a protected area is managing people, users need to be aware of not only the rules governing the MPA but specifically how they can comply with them and how they benefit from complying with them. For example, if there are zones within the MPA that prohibit certain activities (e.g. fishing, diving, boating, etc), users must have access to where the zones are and what activities are allowed and prohibited within them to comply with these rules. Additionally, users should understand why the zones are in place and what benefits complying with those zones will provide them. However, the zones may impact and benefit different users in different ways. As such it is critical that enforcement field operations include providing outreach to users that specifically target how different users can comply with rules and how they will benefit from doing so. Understanding effective ways to deliver messages is also important.
2. **The role of engaging the community to encourage compliance and support enforcement.** Users also have to have an understanding of the purpose of the protected area, and ideally to feel some ownership and responsibility for ensuring its success. The way to do this is by engaging with the community in a variety of ways from the beginning of the design and the continued management of site. Appropriately including stakeholders in the design and management can therefore help to encourage compliance as well as support enforcement programs by being the “eyes and ears” of the site. This is particularly useful as most enforcement programs have limited capacity to be at the site at all times.

Crafting Effective Outreach Messages to Encourage Compliance

Effective Outreach to stakeholders such as schools, fishing groups, and local government, the MPA can help stimulate environmental awareness and to develop an understanding for the importance of the rules and regulations protecting the environment. Awareness plays a major role in the success of any soft enforcement program. In countries where MPAs are effective, conservation awareness is usually high. Soft enforcement aims to provide various target audiences with information and a conservation ethic so that its they can make informed decisions about the use of their resources and the importance of complying with the rules and regulations protecting it.

One of the main components of effective outreach is crafting messages that speak to your target audience. To do this, you must understand why they are behaving the way they are so that your message can speak to the underlying reason for the behavior.





Additionally, the way in which messages are delivered will impact how they are received. For example, violators of rules may not consider messages from formal enforcement officers as important because they believe they are “the enemy” by prohibiting them from using certain areas. However, if similar messages are delivered from leaders within the fishing community, high ranking community members, or other sources whom these violators respect, the messages may be more well received and more likely to be complied with. Tourists however may receive messages through printed materials or signage written in different languages. For this reason, it is important for enforcement programs to work with and utilize methods to share information that has the best chance of reaching intended target audiences.

Activity 04: Developing messages for different audiences

1. Draw the following table on a piece of flipchart paper:

Target Audience	Information they Need to Know or Action You Want Them to Take	Main Interest and Benefit	Key Messages	Approach to Deliver Messages

2. **Identify Target Audiences** - Target Audiences are the parties who have a stake in the resource or who are simply involved, interested in, or impacted (positively or negatively) by coastal and marine resources and their uses. These may include community members, fishermen,

commercial dive and snorkel operators, local businesses, recreational users, schoolchildren, hotel owners, and many others. They also include parties who have an influence on MPA management including enforcement programs. This may include judiciary systems and government leaders. In the first column of the flipchart paper, write 3-4 target audiences that have a stake in your MPA.

3. **Information They Need to Know or Action You Want Them to Take** – Messages that target specific users will be more likely to be received well. For example, tourists may need to know where they can swim safely, while fishermen need to know where they are allowed to fish and what they are allowed to take. For each target audience identify:
 - a. what information they need to know
 - b. what action you want them to take

4. **Main Interest and Benefits** – People also respond more positively to messages that explain, how they will benefit from complying with rules or taking certain actions. Following on with the previous example, tourists can benefit in swimming in certain areas because they can be safe from currents or boat traffic. Fishermen can benefit from complying with MPA rules through the benefits they provide in growing fish populations, which can improve fisheries outside the MPA and therefore improve catch and income sources. In some cases, it is also important to explain what will happen if the action is not taken. For example, potential violators may need to know certain penalties or citations that can be provided if they do not comply. In the third column, write the main interest or benefits each target audience has in complying with rules and regulations.

5. **Key Messages** – Using the information from the previous two columns, develop 1-2 key messages for each target audience. Consider the following Key points for developing your message follow.
 - Keep messages simple and straight forward. Your message should focus on one idea and be easy to understand.
 - People will support messages they see affect them personally. Craft the materials to suit your audience. For instance, for radio audience, you may need a 30 second Public Service Announcement (PSA); to lobby a government official, develop no more than one-page with key points, while for children the materials may be best presented in the form of a activity.
 - People buy into ideas when they see actions they can take to improve their situation. Your message should ask them to do something.
 - People support ideas put forth by people they trust. Build relationships of trust before you ask for action.

6. **Approach to Deliver Key Messages** - There is a wide variety of ways that you can deliver your message including printed materials, audio-visual presentations, and face-to-face interaction, and through influential partners. Depending on the target audience and budget, a variety of additional options can be employed: mass media (press, television, radio), fixed exhibits, tours, the sale of promotional materials such as t-shirts, and informal recreational activities with an educational focus. Finally, in some instances messages may also need to include training that provides target audiences with skills to take certain actions you want them to take. For example, if you want community members to help enforcement programs by reporting violations, they may need training on safety protocol and recording violations. For each target audience and message, consider
- a. What approach can deliver the necessary knowledge, attitudes, and skills to encourage compliance?
 - b. What will work best in the context of the local culture?
 - c. What skills does your team have? What resources exist in your area (theater groups, student volunteers, university courses, etc.) that could contribute to your program?
 - d. What people or resources are trusted among this target audience and can help deliver messages?

Based on this information, write down the approach need to share key messages effectively with each target audience in the last column.

Engaging The Community To Encourage Compliance And Support Enforcement

Engaging the community can also greatly influence compliance and support enforcement. When people are engaged in MPA management activities they have a sense of ownership and can be great advocates for ensuring rules are complied with and/or violators are discouraged. The two main ways communities can be engaged to encourage compliance and support enforcement are:

1. **Awareness Raising and Outreach**
2. **Observation and Incident Reporting**

Awareness Raising And Outreach

Awareness raising and outreach activities are important because they transmit information regarding the importance of the resource and how to use it appropriately. Damaging activities decrease, and a growing group of knowledgeable resource users has the information needed to teach others. Awareness and outreach can include activities such as developing and distributing printed materials, posting signs, approaching resource users one-on-one or through speaking events.

Community volunteers can provide awareness and outreach to provide the following types of information:

Information and interpretation of the MPA - Visitors look to outreach staff for information, interpretation and insight about the places they are visiting through formal briefings and informal talks. Outreach personnel can also teach visitors to be smart about their own safety. Frequently it is more effective to warn visitors about potential hazard than dealing with injuries, which can be serious and harder to manage.

Environmental Awareness - Environmental awareness is a subset of communication that focuses on explaining environmental/ecological concepts to the general public. One of the central tenets of effective outreach and enforcement program is to educate the users. Outreach staff and volunteers, who spend a considerable amount of time with visitors, are in a perfect position to educate through skilled communication. Many local residents have a detailed knowledge of the plant and animal life as well as of other natural and cultural attractions. They can also relate first-hand experiences with wildlife, medicinal plants and other local phenomena.

Enforcers of Regulations - Unfortunately, not all users know how to behave appropriately in sensitive natural setting. Outreach staff and volunteers should be familiar with the rules and regulations of the area, and what to do if they spot a violation. It is important to remember that

most outreach staff are not law enforcement personnel. If an outreach staff member spots a visitor or resident engaging in “ecologically unfriendly” behavior, they are encouraged to approach and instruct in a positive manner, rather than yelling at the person or immediately pointing out what they are doing wrong. For example, if someone is feeding fish or standing on the reef a volunteer may want to point out a concern for the individual’s safety rather than discussing what is ‘inappropriate’ about the behavior. In more severe cases outreach staff should contact law enforcement personnel immediately.

Liaison with Local Communities - When outreach personnel are from local communities, they can serve an important role in improving communication between the site’s administration and local people. This is particularly important when there may be some misunderstanding between the two different “communities,” which there frequently is. Naturalist guides in the Galapagos Islands and other places have established their own organizations to further conservation objectives. In the Galapagos Islands, they have been especially helpful in obtaining local support for the Park Service in the face of illegal fishing activities originating outside the islands.

Observation And Incident Reporting

Although Awareness Raising and Outreach may help to encourage compliance with regulations, poaching and other detrimental activities may continue in some areas. To reduce the willful disregard for laws governing marine resource use, community volunteers can be trained to accurately observe, identify and report resource violations to appropriate law enforcement agencies.

Observation and compliance utilizes citizens to be the “eyes and ears” of traditional law enforcement agencies, by providing as much information as possible about possible marine resource violations to their local law enforcement office. The information provided can then be follow-up by the law enforcement officers. Violations include poaching or other fishing violations, illegal commercial tour activities, problems with boating and ocean recreation activities and most other natural resource violations.

Observation and voluntary compliance activities are important because it is thought that they often lead to decreased regulation violations. When people understand the regulations governing an area or know that the area is being watched, they are more highly motivated to comply. Because many traditional or hard enforcement organization have limited resources, their officers cannot effectively “police” all the areas; program staff and/or volunteers can make a large difference.

Probably the number one complaint about protecting our marine resources is the lack of enforcement-due to lack of funding and staff. There frequently are simply not enough officers to witness and catch every violator. By simply providing a presence and observing activities along our shoreline areas, communities can help to reduce poaching and other illegal activities. The

fact that violators know their actions are not tolerated will help to protect our precious natural resources and historical sites. Local volunteers can help track repeat violators and help enforcement officers build cases that can be prosecuted.

While having community volunteers carry out observation and incident reporting is greatly beneficial, it is critical that they be trained and well equipped to handle situations safely.

Training

It is critical that all volunteers are trained and mentored properly in order to ensure safe and effective field operations. Citizen volunteers should be given basic training by law enforcement officer on how to safely observe, identify, and clearly report their observations. Volunteers should also fully understand applicable rules and regulations related to the area being observed and monitored including those rules specifically related to resources (e.g. poaching, size and catch limits, seasonal regulations, etc.) and common recreational and commercial activities in the area (e.g. boating rules, various fishing methods, etc.).

Safety First

Safety of community volunteers is the first priority. Approaching strangers can be a potentially dangerous and therefore volunteers need to have the knowledge and skills on how to stay safe when they are carrying out these activities. This includes:

- Do not take any offensive actions like blocking cars or attempt to make an arrest.
- Never confront individual(s) suspected to be in violation of resource or other laws, rules, regulations.
- Never engage in debate or argue with individual(s). If someone tries to engage in a debate, thank him or her for their time, diplomatically disengage from conversation, and move away from the person.
- Never provide anyone your last name or indicate where you live.
- Be aware of and document environmental conditions. For example, what are the weather and ocean conditions like? How many people are in the area and what kind of activities are they engaged in?
- Volunteers should have immediate access to a mobile phone or radio so they can immediately call for assistance. In the absence of a mobile phone or radio, volunteers should identify all nearby telephones and public safety officials.
- Conduct Observation and Incident Reporting activities in pairs using a “buddy system” for observing, communicating and documenting observations.
- Volunteers who elect to take photographs or video of an activity that is suspected of being a violation of a resource rule or regulation should only do so from a safe distance

from the observed activity. Attempts should be made to remain out of view from the individual(s) engaged in the suspected violation while the photograph/video documentation is taking place.

- Immediately ask for police assistance if you are subjected in any way to verbal threats or physical violence.

Monitoring of Tourism Impact - Since outreach staff visit the sustainable tourism site/protected area on a frequent basis, they are in a unique position to notice certain kinds of impact, such as water quality, marine debris, increasing rareness of a particular bird species, etc. They are also in an excellent position to carry out formal monitoring observations for the site's managers. In many places, outreach staff members take the time to carry out observations of the number of nesting birds or of the regeneration of a plant species in a designated quadrant. This can be of valuable assistance to a site's managers when they are short-handed or simply do not have trained personnel to carry out these tasks.

Incident Documentation And Reporting

Information collected by volunteers can prove critical in assisting law enforcement staff in the prosecution of resource violations and may help build greater public support for additional enforcement resources.

This information includes, but may not be limited to:

- The name, address, and contact information of the volunteer compiling the report;
- Physical description of the individual(s) suspected of a violation (i.e. approximate age, height, weight, hair and eye color, other physical features, description of clothing, tattoos or other identifying markings or features, etc.);
- Description of the suspect's boat, watercraft or other vessel, vehicle or trailer including registration numbers, vehicle or trailer license plate numbers, the make, model, year of the vessel or vehicle;
- Detailed description of the suspect activity or resource violation, including the type of equipment, if any, and the manner in which the equipment is being used;
- In many cases, photographs or video documentation of a suspected violation can be important, however, Volunteers should always remain mindful to collect images discretely, from a safe distance and only if they feel they are able to do so without fear of reprisal from the individual(s) suspected of a violation.

There are existing programs, such as Hawaii’s Makai Watch Program that can be used as models to support training of community members to safely and effectively carry out awareness and outreach, and observation and incident reporting activities.

Handout 5.X – Case Study: Makai Watch Program

<http://mauinow.com/2014/07/18/maui-fisheries-team-recognized-for-pilot-program-success/>

<http://mauinow.com/2013/09/05/fisheries-enforcement-unit-issues-12-citations-since-launch-on-maui/#more-106956>

Activity 05: Community Engagement Opportunities

List stakeholders (fishermen, dive operators, etc) and how they use the MPA	List information do they need to know?	List ways they can support awareness, observation, and/or incident reporting?	What challenges and opportunities does your enforcement program have to engage these stakeholder in this type of activity?

- Would the community local community be interested to form an organized citizen watch group?

CASE STUDY: MAKAI WATCH AWARENESS RAISING AND OUTREACH STANDARDS

1. AWARENESS RAISING AND OUTREACH REQUIEMENTS

Makai Watch focuses on caring for an area first and foremost by raising awareness among users of the area. Makai Watch Programs will provide a MW t-shirt and Volunteer Manual and a Quick

Reference Guide to participants so they are trained and equipped to raise the public's awareness about the importance of the area, its cultural significance, history, ecology, and regulations that are in place in the area. Many visitors to coastal communities know very little about these elements. They may be unfamiliar with how to care for the area, how to provide the appropriate cultural respect, and with the regulations. As a result, they may inadvertently break laws or engage in damaging or disrespectful behaviors.

Required Topics to include in Site Program Manuals and Quick Reference Guides

Site Program Manuals should include the following information as reasonably available. It is however recognized that acquisition of this information may be beyond the capacity of a Site Program. In such cases the Site Program should gather and include all information possible and revise the manual every two to three years and/or as more information becomes available.

Maps and photos should be used throughout the Manuals and Quick Reference Guides to assist with understanding of the Site. The Manuals and Quick Reference Guides shall be reviewed and approved by DLNR prior to distribution and shall be reviewed from time to time to ensure any updates or changes to rules and regulations are accurately reflected.

Manual Contents:

1. Cultural Significance (please consult with lineal descendent of the area)
 - Traditional uses of the area and significance
 - Mo'olelo (as available)
 - Place names
 - Cultural practices that should be followed and respected
 - Any legends or stories about the area
 - The current cultural significance of the area (with an emphasis on Hawaiian culture, but with reference to any other cultures that use the area)

2. History
 - Historical uses of the resources in an area
 - If the area is a formally managed area such as a Marine Life Conservation District, the date and objectives of designation should be taught.
 - Any changes to the area's status along with the reason for these changes
 - The current objectives of the managed area
 - Any other interesting historical facts

3. Physical and Ecological Characteristics
 - The dominant ecosystem
 - The types of organisms that are likely to be encountered (including photos to assist with identification). Volunteers should be able to easily identify all species that are regulated in their Site.
 - The ahupua'a concept: The relationship between the land and sea

- The current status of the area in terms of resources
 - Organisms that may be dangerous and potentially harm resource users
 - Organisms that are sensitive and thus should be avoided to reduce harm by resource users
4. Site Etiquette (responsible and appropriate behavior)
- How to conduct yourself in the water—i.e., not trampling coral, not harassing turtles and marine life
 - What to take or not take out of respect for the local community. Some communities may want to decide together which practices they feel are appropriate for their area. For example, at Miloli'i on the Big Island, the community has asked that no one lay gill net in front of the halau. While it is technically legal, it is not considered appropriate by a large number of community members.
5. Safety
- Specific natural and manmade hazards of the area (i.e. water currents, uneven ramp)
 - How to approach an ocean user for educational purposes
 - Provide contact information for nearest medical facility, phone, life guard stand, 1st aid kit

Quick Reference Guide Contents:

1. Regulations (these may be included in the Quick Reference Guide to the Rules and Regulations of the Area)
- Regulations that are specific to the area
 - Regulations that apply to any marine life in Hawai'i, including the particular area

Exercise:

If the Applicable Laws and Regulations are extensive and complex or hard to understand because they are written using legal terms, the team can develop a short summary that provides clear and easy ways to explain the laws and regulations of the MPA that can be used with the public. Use the table below to help complete the summary.

Law or Regulation #	List the activity that is prohibited (e.g. fishing, swimming, etc)	List the area, time of year, or type of gear that the activity is prohibited	List the reason why this activity is prohibited
Summary sentence of rule:			

Session Five: Effective Hard Enforcement Operations in the Field

Overview

Active hard enforcement operations in the field focus on detecting, intercepting, stopping, apprehending, and/or arresting violators. These elements are at the core of any effective enforcement program. While Soft Enforcement approaches including outreach and awareness raising are designed to increase compliance, hard law enforcement operations are necessary to deter violations by those individuals that don't respond to soft enforcement approaches.

Hard enforcement covers a range of activities including: gathering intelligence (information) on violations and perpetrators; surveillance and patrolling, and detection; intercepting and apprehending violators; processing the violation including collecting and handling evidence, warning, detaining or arresting violators, and managing the case until it is taken up by the judicial system.

While the first priority of any enforcement program is to encourage compliance and to deter violations before they happen, hard field enforcement operations are absolutely critical to reducing and managing violations of MPA rules and regulations. Numerous people will violate MPA rules because they are not fully aware of the rules while others will purposely violate regulations in an effort to benefit from the area's marine resources. While different violations require different enforcement responses, active and effective enforcement presence in the field is a critical factor to successful MPA management.

The difference between a Plan for Hard Enforcement and Standard Operation Procedures

This module focuses on supporting Collaborative Enforcement Teams to develop Hard Enforcement Plans. This includes identifying:

1. The desired outcomes that the hard enforcement program is striving to achieve,
2. The activities needed to achieve these outcomes, and
3. The human, financial, and physical resources needed to carry out priority activities.

Joint Standard Operating Procedures (SOPs) detail the step-by-step procedures and protocols for how the activities of Hard enforcement are conducted in the field. For example the details of exactly how a patrol is conducted or how evidence is collected and maintained.

While this module provides an overview of Hard Enforcement Approaches and steps to help develop a Hard Enforcement Plan, the process for developing Joint SOPs is covered in Module 10.

Session Objectives:

1. Understanding of key elements to effective hard enforcement operations in an collaborative enforcement program

2. Understanding the Importance of collaborative planning for Joint hard enforcement operations and development of standard operating procedures (SOPs)
3. Understanding the importance of safety in field operations
4. Sharing experiences from around the world on effective hard enforcement operations
5. Understand the status of the target MPA's hard enforcement program
6. Developing outcomes and actions for an effective joint hard enforcement operations to be included in the Collaborative Enforcement Plan for the MPA

Common Effective Approaches to Hard Enforcement Operations in MPAs

The following elements are typically part of any hard enforcement operation in an MPA. While the elements will vary from site to site and how they are pursued will need to be developed by each MPA, below we provide a general overview of accepted good practices under each element.

1. Joint Field Teams
2. Intelligence Gathering
3. Field Surveillance and Patrol
4. Vessel Boarding
5. Search, Seizure, Arrest
6. Case Management
7. Evidence Handling
8. Safety and Equipment in Field Operations
9. Planning for Effective Joint Field Enforcement Operations

1. Joint Field Teams

Many MPAs have found it very effective to utilize a joint Field Enforcement Team approach involving the major enforcement agencies with authority in the area including: key government agencies, law enforcement agencies, military, local community members, representatives of local Government, and non-governmental organizations. These different agencies and groups are often able to play different roles that collective can create an effective field operation. While the roles of the different groups will vary by location, some common roles are summarized below. A critical aspect of building an effective Field Enforcement Operation is clearly delineating and agreeing to these roles and capturing them in an agreed to Standard Operating Procedure.

Case Study on the Composite Ranger Team from Tubbataha Reefs Natural Park, Philippines

At Tubbataha Reefs National Marine Park in the Philippines representatives of key agencies are deployed together in composite team. The composite team of marine park rangers was conceptualised in 1995 when a multi-sectoral Presidential Task Force was established to safeguard Tubbataha. This represented a shift in the national approach to natural resource management – a move towards decentralization and collaboration that was embraced by those involved in environmental conservation. The composite team of marine park rangers is made up of:

- The Philippine Navy
- The Philippine Coast Guard
- The Local Government Unit of Cagayancillo (the local community)
- Tubbataha Management Office

NGO representatives also regularly join the team both in deployment at the Ranger station and on joint patrols. Members of this joint team have reported that the presence of people from different groups gives the capacity to help address most situations and also helps to create a check and balance between the groups to help ensure that operations remain effective.

Comprehensive training for Marine Park Rangers ensures each individual is familiar with law enforcement protocols before they are assigned to Tubbataha. Basic ecology and management objectives for TRNP are also a key part of the training course. Comprehensive training is critical since marine park rangers come from different agencies with unique mandates, they have different training, skill sets and levels of environmental awareness. Guidelines are periodically reviewed as circumstances change and new challenges emerge. Training unites rangers from different backgrounds and ensures that they can focus on the task at hand - protecting Tubbataha.

Common Roles of Various Stakeholder Groups in Joint Enforcement Field Operations

Common roles of community members: Because community members often live inside or adjacent to MPAs, they can play a critical role in enforcement field operations. They are usually the stakeholder group that is most directly dependent on the areas marine resources and therefore can be a highly motivated part of the enforcement operation. They can discourage violations through outreach and peer pressure, they can act as eyes and ears to observe and report on violations, they can provide intelligence on suspected violations and violators, and in some areas they can be deputized and provided with enforcement powers. Community members are often included on joint patrol teams.

In addition to government regulations, community members may also establish community-based or traditional regulations that they can enforce their local village court. The key is to be sure that the roles of the community is clear and well aligned both with any other MPA regulations and enforcement operations.

Community members do not typically carry firearms and unless deputized are not typically recommended to engage in any aspect of field operations that require the use of force. However, when community members are included in a joint patrol they need to be provided with the appropriate equipment and training to make sure they can respond appropriately to any situation in the field

If community members are not supportive of enforcement in the area, they can take interfere with effective enforcement. For example they may tip off violators about the presence of enforcement officers. The support of local residents for compliance and enforcement efforts is extremely important and should be nurtured through approaches that directly involve them in the development of MPA rules and the MPA implementation.

Common roles of NGOs: NGOs are often dedicated to conservation and sustainable management and therefore motivated to solve any problems that may interfere with conservation and management. They can often act as important facilitators both in MPA management and in active field enforcement operations. Additionally they often have important outreach and training materials and programs that can support both Soft and Hard Enforcement. Likewise they can share and facilitate planning processes that can help to strengthen the execution of joint field operations. In some cases NGOs may also play a role in supplementing government or community-level funding for field operations. In many MPAs, the MPA authorities have decided to directly involve NGOs in joint field operations as a member of joint patrol team. NGO members don't normally carry firearms or engage in situations that require the use of force. However, just as with community members it is critical that NGO staff be trained to deal with common situations that may arise.

Common role of Local Government: Many MPAs have both a local Government designation as well as a Provincial or National level designation or recognition. Most local Governments have jurisdiction to a certain distance from shore. Commonly around the world this is 12 nautical miles, while beyond this area, jurisdiction is held by national level agencies. However, in cases where a MPA exceeds this distance special jurisdictional arrangements can be developed.

Common role of Resource Enforcement Agencies: Resource agencies often have a dedicated enforcement branch or special police force that is responsible for enforcement of natural resources including MPAs. In most places around the world there are numerous resource agencies that employ special dedicated enforcement units. For example, the Forestry Department may have enforcement officers as does the Fisheries Department or other divisions.

Given these individuals are typically the representatives of the agency that has management authority over the MPA, they are typically serve as the team leader of any joint enforcement team. However, this role should be developed on a case specific basis for each MPA.

Common roles of Police: Local level Police Officers typically have a broad range of responsibilities including enforcement of all local and national rules and regulations. In many areas of the world, the Police also have authority to enforcement resource regulations. In some cases there is a tendency for police to leave resource enforcement to the resource enforcement agencies; however, when requested local police can play a key and consistent role in enforcement of resource regulations.

In many countries, community police are the primary law enforcement for communities and can be engaged in joint enforcement operations.

While not all police around the world carry firearms, many do. Most police are thoroughly trained in enforcement operational techniques, safety, collecting evidence, appropriate use of force, etc. Police agencies can be an important partner for training joint enforcement teams. For example, in Palau enforcement officers for Hatohobei State attended the national police academy through a cooperative agreement between the State and National Government. This was the only source of appropriate enforcement training in the country and as a result was critical to the State level officers being able to build their skills to properly and safely execute field programs.

Common roles of Military: While the primary role of the military in most countries is national defense and peace keeping, Military branches can often play a critical role in resource management. Particularly in times of peace, military units may be deployed to serve vital functions to national interest including community development roles, infrastructure development roles, joint enforcement for natural resource management, and many others.

The Military tends to have the highest level of technological and transportation capacity and is typically the best equipped in terms of arms. As a result, in joint enforcement operations, the Military is often asked to conduct surveillance in remote areas and to respond in situations that may pose significant risk or threat.

In some cases such as at Tubbataha representatives of the Navy are regular members of the joint patrol teams. In other cases, , the local Government and the Military have an agreement that the Military will respond on a case by case basis to violations when the are in national waters or appear to pose a significant threat that is beyond the enforcement capacity of local officers.

It is important to have clear agreement with the appropriate Military branch both on its role in joint enforcement including operational procedures if a violator is engaged or apprehended. These procedures should be agreed to enshrined in and Joint SOP.

Activity 06 — Identification of who should be on your Joint Field Team

1. Turn to your neighbor and discuss, which agencies should be on the Joint Enforcement Team for your MPA?
2. What role will each agency plan in the team?

2. Intelligence Gathering

Intelligence is information needed by coastal law enforcers to make decisions, better understand common violations and the violators, reduce uncertainty and risk in operations, and cope with changing situations. Good Intelligence is important to planning and conducting successful coastal law enforcement operations and can greatly improve the effectiveness of any law enforcement operation. Phases of the intelligence cycle include planning, collecting, processing, and dissemination of key information about violations and violators in the area.

Each Collaborative Enforcement Program should develop and maintain a system that meets its needs for the collecting, processing, dissemination, and use of enforcement intelligence.

Intelligence Networks: Intelligence used for enforcement planning may be gathered using a variety of methods and sources. An intelligence network composed of community, district, reGENCY, provincial, and regional sources should be established to enable the collection of different types of information needed to develop enforcement strategies and plan enforcement operations. This type of networking can be facilitated through periodic workshops or forums.

Information on violations in an MPA should be kept confidential to the Enforcement Team. Given the enforcement team for many MPAs will be a multi-stakeholder team it is important to know the background on all people participating in the team and to trust them. It is possible that members on the team may provide violators with key information about the enforcement team operations and its intelligence or information on the violations. This can result in a breakdown in the ability to effectively enforce. As a result it is important that this information be tightly controlled.

Mapping: Mapping is one effective tool to display intelligence on violations that have occurred and on types of violations that are suspected to be occurring. Detailed maps of the target MPA as well the larger region can be used to display the typical violations that happen in different areas of the MPA. Mapping information can help identify areas to focus enforcement efforts. Linked documentation on the violations should be kept and may include the following information.

Resource and Human use Monitoring: Many MPAs conduct consistent monitoring of biological resources, human uses of the MPAs, catch and use of key species, and violations. Increasingly Collaborative Enforcement Teams are participating not just in monitoring of violations but also in monitoring of priority resources in the water and of all Human uses including catch and use of key species. This information can provide important information of the status of resources and how people are utilizing the MPA. The process of collecting this information will bring Joint Field teams in contact with numerous community member and other stakeholders that may also provide key intelligence on potential violations.

Maintaining Good Logs and Records: It is also extremely important to maintain good log books of patrol and surveillance activities and to make sure they are geographically referenced. This is a key element of developing a long-term intelligence record. Even if no violations are detected on a particular patrol in a particular area of the MPA, it's important this is noted, so violations can be tracked over time.

Important Information to Record for common types of violations that either have occurred or are suspected to be occurring:

- a. Type: The type of the violations,
- b. Location: Place or area where illegal activities are suspected to be occurring;
- c. Method: The methods used to commit the violations;
- d. Time: Typical time of occurrence,
- e. Violators: Typical type of violator,
- f. Names or Identifying Features: Specific to persons known or suspected to be violators. Important background information includes places of employment, known hangouts, and associates. This information can be obtained from informants or supplied by other intelligence centers;
- g. Capability of the Violators: Specific capability of the violator in terms of firearms, communications, number of violators, equipment, and training
- h. Level of Risk: Risk or threat associated with the violators in terms potential violence against enforcement officers
- i. Vessels: Specific vessels or vessel types identified or suspected of being used in illegal activities.
- j. Origin of the Violators: The home port or community and other ports visited regularly, sea lanes or routes utilized as well as a list of other vessels known to be associated with the suspect vessel.
- k. Hiding Spots: Suspected hiding spots of the vessels in question; and
 - a. Reasons: The suspected reasons for the violations
 - b. Solutions: Recommendations on how to address and reduce each type of violation

Activity 07 — Gathering and Using Intelligence

Turn to your neighbor and discuss:

- Does your Enforcement Program gather, utilize, and record intelligence (information) from people around your MPA to support enforcement operations. If so, please describe how this is done. If not, please explain why not and discuss if this could be included in your Enforcement Program?

3. Field Surveillance and Patrol

Enforcement operations are field activities undertaken by law enforcers to implement preventive and corrective measures against violations of the MPA Rules as well as any other rules. The specific objectives of enforcement field surveillance and patrol operations are:

1. Interact with the Public to provide outreach and encourage compliance
2. Collect additional intelligence concerning illegal activities in the marine environment;
3. Establish the presence of law enforcement units as deterrence, and
4. Detect, prevent, and suppress violations of laws and regulations.

In the field, operations are the direct; “hands-on” approach to enforcement, where the ultimate objective is to ensure compliance of coastal regulations and laws by physically deterring, interdicting, and apprehending violators. This section describes some of the operational tactics and procedures used in conducting coastal law enforcement operations.

Interaction with the Public

Interaction with the public is one of law enforcements best tools both to encourage compliance and to better understand potential violations. Joint Enforcement Teams should be trained in outreach and key awareness raising techniques so that they can first and foremost provide the public with important information about the MPA, its values, the rules, the reason for the rules, and how complying with the rules will bring a benefit to the human population living in the area. While enforcement agents may not have a background in marine biology or outreach, it is critical that they be trained to be good communicators in key aspects of these topics so they can effectively communicate the importance of the MPA to the public.

In interacting with the Public, Law Enforcement agents should always maintain both a highly professional demeanor, treat all members of the public with respect, and consider the cultural, social, and economic features of community members and other stakeholders. Many people that law enforcement agents come in contact with may depend in many ways on the MPA and its resources for their survival and income. This must be considered in the way agents interact with these stakeholders. It is also important to remember that in many MPAs, local community members may be indigenous to the area with deep cultural ties to the area.

Effective Surveillance

Surveillance is the monitoring of the behavior, activities, usually of people for the purpose of influencing, managing, directing, or protecting them. This can include observation from a distance by direct visual means or by means of electronic equipment (such as fixed or areal cameras, radar, and satellites). Surveillance can include simple, relatively low technology methods such as enforcement officers conducting field patrols. Surveillance is very useful to governments and law enforcement to maintain social control, recognize and monitor threats, and prevent/investigate criminal activity.

Application of Intelligence for Effective Surveillance

Intelligence information as described above can help to improve the effectiveness of

surveillance by directing Collaborative Enforcement Teams on where and when to focus their surveillance. However, it is important to understand that while Enforcement Officers may be monitoring the behavior of suspected violators, the violators themselves are also monitoring the behavior of the officers. Violators will take advantage of any patterns that they start to observe in enforcement behavior, such as patrol times or blind spots where visual surveillance or radar cannot see violators. For this reason it is critical to constantly be innovating and altering enforcement tactics.

Use of Technology

Numerous natural resource enforcement agencies around the world have utilized technology to aid them in surveillance. Real time surveillance technology includes radar, aerial photographs, fixed cameras, drone based cameras, listening devices that transmit in real time via satellites, and intelligence networks reporting on the movement of violators with cell phones and text messaging. Other technology such as remote listening devices that gather information but have to be retrieved to gather their data and periodic satellite imagery or over-flight photos can be helpful to understand patterns in violations in remote areas. This may provide important intelligence for enforcement programs to direct field resources efficiently.

Radar has proven particularly effective especially in remote and marine areas. Most radar systems can detect vessels within a 30 to 60 nautical mile radius. Radar has been used effectively by MPAs ranging from community-based MPAs such as Helen Reef in Palau, which is a remote atoll, to Tubbataha, another remote atoll, which is a National Park and World Heritage Site in the Philippines. Modern radar is not prohibitively expensive for most MPAs and can be maintained even in remote locations. Radar is especially helpful to direct patrols to times when vessels are detected and improve safety by allowing Enforcement Agents to conduct surveillance at night without patrolling on the water.

Numerous MPAs and other marine management agencies around the world are experimenting with the use of Unmanned Aerial Vehicles (UAVs) or drones with onboard cameras or radar. Drones offer great promise to conduct effective and efficient surveillance allowing patrols to respond to violators that are detected rather than patrolling over large areas looking for any violators. The use of drones can save time, fuel costs, and reduce risk to officers.

There have been some great examples of the usefulness of this approach. NOAA (National Oceanic and Atmospheric Administration) has Unmanned Aerial System that has been flying demonstrations since 2005. Recently a private company flew tests for the President of Palau to demonstrate the technology in looking for illegal fishing.

That said, patrol posts in remote areas and regular patrols remain important as violators can either do a great deal of damage in the time it takes a patrol team to respond and/or may have an opportunity to escape apprehension.

Collaboration with Local Residents and Others on Surveillance

Local residents within an MPA, can be of the greatest sources of information to support effective and efficient operations. For example, fishermen and tourism vessels spend an enormous amount of time on the water and may often see violations or vessels that may be suspected of violations.

If they are supportive of enforcement operations and trust that they will be safe from persecution by violators, local communities may provide enormous amounts of intelligence that can help enforcement teams to be more effective in their surveillance and field operations.

As discussed, some community members may be included in joint enforcement teams. Additionally, large numbers of community members that are not directly involved in the joint enforcement team may still serve as eyes and ears to provide information to the enforcement team. It is extremely important that the enforcement team develop a strong relationship with local communities, especially their leaders and active fisherman.

However, the enforcement team should also take every precaution to ensure that their engagement with community members does not put them at risk of retribution by violators.

Patrolling

Patrolling is surveillance conducted by physically travelling through a target area with the objectives of demonstrating enforcement presence to deter violations and/or to detect violations or the presence of suspected violators. Patrols may also provide outreach on MPA regulations to specific target groups to increase awareness of and compliance with these rules. A menu of land-based and sea-based patrol approaches is found in the table below. Other approaches may be used in other specific situations or MPAs.

1. **Visibility patrol:** Visual and obvious presence of law enforcers in area, e.g. patrolling of MPA waters using marked sea vessels and presence of uniformed law enforcers in an area.
2. **Covert patrol:** Secretive presence of law enforcers in the area normally conducted by plainclothes operatives using unmarked vehicles or vessels. Also known as undercover operations, e.g. used to monitor possible illegal activities and gather information usually conducted secretly by law enforcement.
3. **Deceptive tactics:** Planned operations that attempt to mislead the targets of enforcement, e.g. deliberate leaking of wrong information about the operations.
4. **Single unit law enforcement:** Operations conducted by a single unit of a law enforcement patrol agency.
5. **Multi-unit law enforcement:** Operations jointly conducted by multiple units of law patrol enforcement agencies in a particular area. These are very effective in MPAs around the world.
6. **Border patrol:** Conduct of a patrol in land borders or water boundaries,
7. **Blockade:** Deliberate attempt to restrict or regulate passage of vehicles or people at key points on the land or sea (at checkpoints, road blockades, coastal/harbor blockade, transportation chokepoints).
8. **Harbor patrol:** Operations conducted in harbors, wharfs, or ports.
9. **Harbor watch:** Monitoring of markings and movements of sea vessels passing through the harbor with the objective of detecting violations perpetuated by vessels or persons.
10. **Foot patrol:** A continuous and regularly scheduled presence of law enforcers in a particular path in the shoreline, normally conducted in strategic areas of the shoreline.
11. **Market denial:** Detection and confiscation of illegally caught fish or protected species at the marketplace or while en route to the market via blockade or checkpoint. Market denial negates the economic benefit derived from illegal fishing.
12. **Directed raids:** Planned operation involving a surprise attack or invasion of a property suspected to be involved in illegal activity. It may only be conducted by uniformed personnel authorized by a warrant or as provided for in the rules of court.
13. **Random patrol:** An unscheduled, unplanned patrol normally conducted in a pre-designated area.
14. **Community and Fisherman Patrol:** A dedicated patrol that may be organized by these groups specifically for detection purposes or surveillance that is conducted as part of normal community activities or during normal fishing activities. These patrols can provide a lot of information at a low cost.

Geographical and environmental conditions should be assessed in selecting specific tactics for a particular patrol operation. The locations of reefs or submerged hazards, small islands, dead spots in radio communications, and patrol posts should be known and identified on a map. Water depth and accessibility by small boats, constricting water ways, main roads and thoroughfares, weather conditions should all be assessed in terms of assisting or hindering

operations.

Land-based operations

Most land-based operations in coastal law enforcement are preventive in nature.. Foot patrols on the shoreline, establishment of checkpoints, and harbor patrols are effective tactics that can deter violations by providing the overt presence of officers. These approaches tend to be most effective if there are a few major landing sites for fish, but can be more challenging if there are numerous dispersed landing sites for small scale fisheries.

Random patrols on the shoreline and spot inspection of fishing boats before going out to sea may also be useful strategies to prevent violations. In the case of blast fishing, for instance, intelligence networks built on addressing the sources and suppliers of explosives and their paraphernalia may prove to be effective in preventing dynamite fishing on a larger scale.

Market inspections generally focus on identifying rule violations but may also help to prevent violations if conducted regularly. Surveillance on landings of illegally caught fish, arresting known traders, seizing illegal fish at markets and/or issuing citations to sellers of illegal fish may dissuade both dealers and illegal fishers from future violations.

The selection of land-borne or sea-borne patrol operations depends on the types of rules that are in place for the MPAs. Land borne operations can address size limits, species bans, and restricted areas near the shore, but cannot address zones with special rules that are large or off shore. For these, seaborne operations are essential.

Seaborne operations

Seaborne patrols are generally focused on detecting and stopping violations especially if they involve search, arrest, and seizure. Boarding protocols and inspection techniques; rules on search, arrest, and seizure; rules of engagement; and evidence handling are the most important tools employed in seaborne operations. All members of a seaborne patrol should have training in all these techniques. Seaborne operations always involve risk. They tend to be expensive and logistically complex and therefore should only be conducted and led by well-trained law enforcers.

Patrol Posts:

Many enforcement programs use Patrol Posts in remote areas to support both land and seaborne operations. This is especially important in large MPAs. Patrol posts should be well equipped and have consistent communications to ensure the safety of Officers. Programs around the world have experimented with the size of Enforcement Teams and length of deployments. While the right formula will be up to the individual MPA to determine, experience generally indicates that for safety a minimum of three to six officers, with at least two individuals well trained in first aid, should be present at a remote post at any one time. Deployments of three to six months are common, although if funds allow, shorter deployments may be more optimal. Special duty pay and provision of special foods, supplies, entertainment, other ways to motivate officers are important to consider. If officers posted in remote areas are not provided with sufficient supplies and support, it is more likely they will trade with illegal

fisheries in exchange for access to the fishing grounds. Experience in several locations suggest that deploying collaborative teams with people from different stakeholder groups helps to reduce the likelihood that team members will be tempted to allow illegal operations.

4. Boat Boarding procedures

The material presented below provides an overview of boarding procedures but does not constitute a complete training in these activities. All enforcement officers and joint patrol team members that may be involved in boat boarding must receive appropriate training that meets nationally accepted standards. The material below is provided as an introduction to this topic and to share some experiences on generally accepted good practice from around the world.

During the course of a seaborne operation, it may be necessary to board a vessel for the purpose of inspection, search, seizure, and arrest. Boarding procedures are protocols that guide coastal law enforcement officers in the safe approach and embarkation of a maritime vessel. While boarding procedures are used primarily during seaborne patrols to identify and verify potential violators, these procedures can also be used to board vessels dockside for inspection of commercial fishing and other types of maritime vessels.

The boarding team should consist of an appropriate number of trained law enforcers with a minimum number as agreed to in the Joint SOP coming from the uniformed service. To be effective, the lead enforcement officer is responsible for directing all boarding operations and briefing the boarding team.

Before deciding to board a vessel, the law enforcement officer should make a series of observations on the type, activities, and potential problems that may be encountered when boarding observations are necessary to determine the degree of risk and to establish personnel, equipment and arming requirements. An assessment of the feasibility of boarding, based on weather and sea conditions, and feasibility of transfer of personnel from one vessel to another should be made.

All members of a joint patrol team should be trained in boarding procedures and practice them regularly. If there is not a sufficient number of members of the patrol team who are trained in these techniques, no vessel boarding should be pursued. Likewise, boarding should not be attempted if:

1. The vessel is underway and will not follow instructions to stop or maintain a consistent speed and course,
2. The seas are too rough or visibility is too low to ensure safety,
3. If there appears to be any danger in boarding including: the crew of the suspect vessel is acting aggressively, there are large numbers of crew members, the vessel crew is brandishing weapons,
4. Any other circumstances that appear to create an unsafe situation.

Pre-boarding observations

Type of Information	Purpose
Vessel location	To determine the approximate position of the

	vessel, e.g. latitude/longitude, inside MPA waters
Vessel activity	To determine the activity of vessel, e.g. anchored, stationary, in transit, fishing as evidenced by smoke, wake, gear in the water, or other signs that can be spotted from a distance
Type of vessel	To determine the vessel type as fishing, cargo, or passenger, approximate length, and tonnage, and to determine the feasibility of boarding the vessel
Vessel markings	To identify any distinguishing features, suspicious or unusual markings on the vessel especially on the hull and stern. Stern markings determine the homeport and registration of the vessel
Gear of the vessel	To determine the type, position, and other characteristics of the gear used by the vessel
Course and speed	To establish course and speed of vessel in transit
Electronics (kind and purpose)	To determine if radio contact can be made and navigational equipment is present
Number of persons visible on board and movements	To ascertain the typical activities of the crew and crew numbers
Crew and vessel reaction to law enforcement presence	To determine change in activity of the crew or vessel
How persons on board are dressed	To ascertain if the origin of people on board is foreign
Weather and sea conditions	To determine feasibility and safety of boarding

After gathering and analyzing the pre-boarding observations, the lead enforcement officer is responsible for deciding whether boarding should go ahead or whether boarding can only be conducted with assistance from other coastal law enforcement units. In some cases, the lead enforcement officer can request that the captain of the subject vessel to hand over documents for inspection without boarding. In deciding whether boarding should be conducted, the first and foremost consideration should be the safety of the boarding team.

If boarding is to be conducted, the lead enforcement officer briefs the boarding team on all circumstances and possible violations surrounding the subject vessel and reviews roles and responsibilities of each team member. A review of equipment and uniform needs is made prior to boarding. Increasingly, MPA Enforcement Teams are video recording boarding operations if there are sufficient patrol staff present to do so without jeopardizing the safety of the crew. Any video or photographic documentation should be maintained confidential as its release may jeopardize an investigation.

Boarding instructions are then issued to the subject vessel. First, the boarding team attempts to

establish radio contact. If no response is received, shouting or motioning from a distance can be employed. The lead enforcement officer should inform the captain of the subject vessel of the intention to board and instruct him to stop the vessel or maintain course and speed, to neither assist nor resist the boarding team as they board the vessel, and to gather identification documents and vessel papers. Before boarding, all crew of the subject vessel are instructed to move to the bow of the boat. The captain is instructed to stay at the helm or wheelhouse. The boarding team boards and first secures the crew at the bow and captain in the wheelhouse.

At least one armed law enforcement officer should stay with the crew of the boarded vessel at all times. An armed law enforcement officer and boat operator should remain on the patrol boat. The rest of the boarding team conducts the inspection, one at the wheelhouse with the captain to check documents and others divide the vessel into starboard and port sides for inspection. Depending on the results of the search and inspection, the boarding team disembarks or makes an arrest. A debriefing is conducted to review and critique the operation. The results of the boarding are communicated through the chain of command or leadership.

The specific operational steps and the specific roles of individuals during these procedures should be spelled out in the SOP and meet international and national standards for safety.

An overview of standard boarding procedures that are generally accepted as good practice is provided below.

Overview of boarding procedures used to inspect or search maritime vessels.

Boarding Procedure	Purpose
Pre-boarding radio contact with office or superiors	To inform office contact and/or superiors of intent to board a vessel and to inform them on the situation and your location. If radio contact is not available, the SOP should have specific guidance on what to do and what not to do.
Pre-boarding observations:	To gather and record information that may be used to assist in developing a plan, determining the degree of risk, and developing probable cause that a violation of law exists
Boarding team briefing	To organize and brief the boarding party on all circumstances surrounding the boarding of the subject vessel
Boarding instructions to subject vessel	To ensure the vessel's captain understands the boarding team's intentions and actions that they will be taking
Boat crew brief	To inform the vessel's crew of their tasks and responsibilities

Embarkation	To safely board the vessel in an orderly manner directed by the lead boarding officer
On vessel procedures including crew control, search, arrest, and seizure,	To guide the boarding team in how to safely control the boat crew while on the vessel. To guide procedures any needed action such as: search, warning, arrest, and seizure
Disembarkation procedures	To safely depart the vessel in an orderly manner designated by the boarding officers
Debriefing	To evaluate the boarding and identify mistakes and activities done well
Reporting	To brief the superiors as to exactly what took place during the boarding

While conducting of any type of operations, coastal law enforcers, whether belonging to uniformed service or legally mandated to perform law enforcement functions are strictly required to observe internationally accepted rules and national standards of engagement. Rules of engagement cover procedures on search, arrest, and seizure and reasonable use of force in the performance of coastal law enforcement functions.

These rules of engagement should follow national standards and be agreed to and enshrined in the Joint Enforcement Operations SOP.

5. Search, Arrest, and Seizure

Search, arrest of person, and seizure of properties may occur when boarding and inspecting maritime vessels. It is therefore advisable that only trained and uniformed law enforcers should conduct search, arrest, and seizure operations.

It is critical that all procedures conducted during search, arrest, and seizure follow the accepted standards of the lead law enforcement agency. If any require procedures are not followed there is a considerable risk that the case will be thrown out on a technicality. All individuals that are involved in search, arrest, and seizure should be fully trained in the prevailing procedures of the leading enforcement agency, follow them closely, and document the actions they take.

Minimum information obtained during search of a maritime vessel should include the list below. Similar but appropriate information can be collected if Officers are searching a car or truck or searching the gear of a fisher along the shoreline:

1. Name of vessel
2. Nationality/flag of vessel
3. Vessel registration/documentation/official number
4. Length overall
5. Tonnage
6. Purpose of voyage
7. Last port of call
8. Next port of call
9. Master/Operator's name
10. Master/Operator's date of birth
11. Master/Operator's citizenship
12. Number/nationalities, names, and date of birth of additional persons on board
13. Whether there are weapons on board
14. Documentation request and review:
15. Certificate of seaworthiness
16. Commercial vessel operators/masters license
17. Commercial fishing license (if applicable)
18. Fish workers' licenses (if applicable)
19. Personal identification cards or drivers license
20. Number and type of lifesaving equipment on board
21. Description of communication and navigational gear on board
22. A certificate of inspection should be issued and signed by the captain and a crewmember as witness after an inspection regardless of whether there are items seized or violations detected. A carbon copy of the certificate should issued to the boat captain.

If violations are identified, arrest and seizure is made. An arrest is usually made by actual restraint of the person to be arrested, or by his submission to the custody of the person making the arrest. In the case of arrests at sea, the boat captain is instructed to proceed to the nearest port. No unnecessary or unreasonable force should be used in making an arrest, and the person arrested should not be subject to any greater restraint than is necessary for his detention. The enforcement officer prepares an Inspection/Apprehension report.

Enforcement Officer Powers

Enforcement officers are typically authorized with considerable powers. It is important, however, to ensure that these powers are not abused. The provision to search and seize without warrant, for example, is often necessary because of the nature of the activities involved. Fishing vessels at sea must be inspected and action taken when an offense is detected right on the spot. There is no time to seek a warrant; however, it should not be assumed that enforcers can act under all circumstances without a warrant.

The specific rules governing the ability of law enforcement officers to board and inspect a vessel, seize evidence, and arrest should be clearly understood by the enforcement team and guide their field activities.

Use of force

Coastal law enforcers must abide by a uniform use of force policy and adhere to nationally and internationally determined rules of engagement in the performance of their duties. Force should not be used when and where assigned duties can be accomplished without it. A reasonable use of force may, however, be allowed to achieve the desired result with minimum injury to people and property.

The specific rules for use of force for your country need to be clarified and enshrined in the Joint SOP. All members of the enforcement team need to be trained in these rules and demonstrate that they understand them.

Appropriate Levels of force for a given level of resistance as defined by the U.S. Coast Guard (United States Coast Guard 2000) do provide an example of generally accepted good practice

1. **Level One:** Often the mere presence of an enforcer is enough to achieve the desired goal. Most people tend to calm down and follow directions when faced with an authority figure.
2. **Level Two:** Verbal commands allow the enforcer to identify him/herself and to order the offender to do something. If the offender does not obey, the enforcer is justified in going to the next level of force.
3. **Level Three:** Soft, empty hand control is used to restrain a suspect who has ignored a verbal order to do something. In this situation, the amount of physical force is determined by the amount of resistance being encountered.
4. **Level Four:** Hard, empty hand control is used to counter a physical attack by the suspect. This typically involves the enforcer punching or using restraining holds on the arms or the neck of the suspect.
5. **Level Five:** Intermediate weapon control may be required to achieve compliance in the case where the suspect is resisting with or without weapons, but with enough force that the enforcer is in danger of being injured. Weapons such as a baton or similar implement that happens to be at hand (an oar) may be used. Weapons such as firearms or bladed weapons should only be used as a last resort.
6. **Level Six:** Deadly force may only be used in the case where the enforcer or someone else at the scene is in danger of being killed. This situation is not very common in coastal

law enforcement.

Subjects are typically divided into two distinct categories: passive and active. Subjects can further be identified as being either compliant, a resistor, or an aggressor. Passive/Compliant subjects follow the enforcer's requests or verbal commands; while the Passive/Resistor subject does not follow the enforcer's requests or verbal commands, but does not physically prevent the enforcer from gaining control. The Active/Resistor does not follow the verbal commands and physically resists the enforcer, but does not attempt to harm the enforcer (i.e., pulling away, pushing, or running away). The Active/Aggressor does not follow verbal commands and attempts to harm the enforcer or others (i.e., punching, biting, kicking) (US Coast Guard 2001). In making an arrest, no unnecessary or unreasonable use of force should be used.

6. Case Management and Documentation

As previously discussed, every aspect of the enforcement chain needs to be effective for enforcement to be successful. This includes management of key information about violations or cases as well as the proper management of evidence.

Effective documentation of every aspect of field enforcement is important to effective prosecution. Standard documentation and reporting formats should be developed to allow field officers to use a common and standard approach. This will reduce uncertainty when it comes to case documentation. Key documents and reports that should be completed and maintained include:

1. Patrol Plan
2. Patrol Report
3. Vessel, Vehicle, or Gear Inspection Report
4. Violation Report including Evidence
5. Evidence Receipts
6. Photographic documentation

7. Evidence Handling

Evidence collected or seized during the course of an enforcement operation or arrest must be properly documented and handled to preserve its integrity in a court of law. Coastal law enforcers should seize all items that they consider necessary or relevant in proving that an offense has been committed. This may include the vessel, the gear, the fish (or other resources) or any other item associated with the commission of the offense.

In most enforcement programs, the seizing officer is required to give a detailed receipt for the seized items to the owner or lawful occupant of the premises in whose presence the search and seizure were made. In their absence, the search and seizure should be made in the presence of and the receipt issued to at least two witnesses of sufficient age and discretion residing in the same locality. Likewise, a receipt must be left in the place in which the officer found the seized property. In the event that the owner or lawful occupant of the premises refuse to sign in the presence of witness, the seizing officer must note this in the receipt or if the evidence is associated with illegal fishing such as fish catch and fishing boats, the apprehending officer must issue an affidavit stating the refusal attested by the two witnesses. All items must be marked

with the enforcer's name or other identifying mark (badge number, etc.), date, time and place of seizure. A receipt should be provided to the accused for the items seized. The condition of any equipment should be noted to avoid later being accused of damaging it.

A SOP for the collection, handling, and storing of evidence should be included in the Joint SOP for the enforcement program and all members of the Collaborative Patrol team should learn and demonstrate proficiency in the SOP.

8. Safety and Equipment in Field Operations

As mentioned safety in the field for the field enforcement team is the highest priority of any Enforcement Program. Module 10 will help your program to develop or refine a full set of patrol Standard Operating Procedures for your joint field operations. These will help to ensure that field operations are conducted in a safe and professional manner. We provide a few important considerations here.

Safety results from the following conditions:

1. A Safety Culture within the MPA management and the enforcement team,
2. Good Training and Appropriate Officer Behavior
3. Effective Standard Operating Procedures and Good Field Planning,
4. Consistent Communications,
5. Appropriate Equipment and Supplies

A Safety Culture

A safety culture is defined as aspects or organizational culture that influence attitudes and behaviors related to increasing or decreasing risk (Guldenmund, 2001). Concept of Safety In its National Occupational Research Agenda NIOSH 2008 defines safety culture as the organizational principles, norms, commitments and values related to operation of safety and health, as well its importance compared to other workplace goals.

Building a culture of safety as an integral element of MPA management and enforcement operations is very important to ensuring all aspects of field operations remain safe. If safety is not prioritized by the MPA managers and the enforcement team leaders, it is unlikely field operation participants will have sufficient safety protocols in place.

Conservation and resource management including the management of MPAs is almost always under resourced. The culture of conservation and resource management tends to be "making due with the resources that are available and constantly searching for solutions to management challenges." While this is a positive attribute, in that it can result in a high degree of motivation and innovation, it can be negative in that practitioners may tend to undertake operations with insufficient equipment, training, and attention to safety. This can inadvertently place team members in harm's way.

A common response when asked about insufficient safety protocols is, "This is how we have always done it, and we have be OK so far." Also, in some parts of the world, accidents that result from lack of resources to ensure adequate safety are often accepted as a necessary risk in a

resource limited environment. While the accidents are considered no less tragic than they are in areas with more sufficient safety protocols, people are often more risk tolerant because they simply do not have sufficient resources to reduce risks that in some parts of the world would be considered unacceptable.

A good example outside the field of enforcement comes from Papua New Guinea. Islanders living in remote areas in Papua New Guinea regularly travel hundreds of miles in the open ocean in small dinghies with no radios, no back up engines, and no safety plan. Economic or social needs dictate that they must travel between the islands and this is the only way they can do so. For many people, this is the way they have always done it and the risk is accepted.

While a degree of risk tolerance is important to conducting effective field enforcement, it is extremely important that safety be given a high priority at all times and that the predominant culture both with the MPA management and the enforcement team is a "Safety Culture". Even in situations when resources are limited, there are many low cost approaches that can be used to improve safety. This may require a reassessment and updating of current safety protocols. Below we discuss important safety considerations and ways to improve safety with modest costs.

Good Training and Appropriate Officer Behavior

Enforcement Officers and any other member of a Collaborative Enforcement Program, should be trained in safety protocols and regular tested to demonstrate their competency. MPAs are designed to benefit people and nature, but if people are seriously injured or die in their management, the entire purpose and implementation of the MPA may be drawn into question.

Even if any individual may be more risk tolerant in their daily lives, when they are involved in MPA business, they must follow all safety standards. The fundamental behaviors that all team members must display are Good Judgment and Patience.

Exercising Good Judgment and Patience means that team members weigh possible risks before taking any action and if there is a significant probability that an action could result in injury, the team member does not proceed. Given teams involve many people; all members of the team must exercise Good Judgment. For this to happen efficiently in the field, team members need to practice how they will respond in certain situations. Scenario-based training is one of the best ways to practice appropriate behaviors and to reinforce these behaviors. Likewise, there should always be a clearly designated Team Leader on every field patrol who will set the standard for how to react in certain situations.

Officers should recognize several important principles to help guide their behavior:

1. Their lives and the lives of others should not be risked under any circumstances.
2. Situations can get out of control quickly. So good judgment and risk management must always be exercised to help maintain an orderly situation.
3. For many different reasons, some violators may not have the same level of concern for their own safety or the safety of the officers. They may be prone to violence for seemingly minor reasons.

4. Officers should not assume a violator is fully safe until this individual has been adequately immobilized.
5. Many safety protocols require practice and coordination among team members to be appropriately executed.

Effective Standard Operating Procedures and Good Field Planning,

The following other considerations are critical to ensuring safety in the field:

1. Effective and Well Understood Standard Operating Procedures,
2. Patrol Operations should always follow a detailed patrol plan that at a minimum includes: the route, duration, number of people involved, and supplies taken should be written and provided to colleagues that will remain at the Enforcement Office or on shore. To reduce operational cost this patrol plans should be developed using the best available intelligence. For example, they may focus on areas where violations are known to commonly occur, chokepoints for travel such as channels or passes, and known or suspected hiding places for violators.
3. The patrol plan should be posted in confidential location, but one that can be accessed by public safety or law enforcement at any time, such as a specified location in the MPA office. A template for a patrol plan should be developed as part of the SOP process.
4. A plan to provide assistance or “back up” to the field patrol team should always be in place. For example, there may be an agreement with Navy or Coast Guard

Consistent Communications

1. Patrol teams should always remain in radio contact with someone on shore.
2. Patrol teams should always have a GPS position locator.
3. Contact should be made by radio with colleagues on shore at least twice daily (typically in the morning and night). During these check ins the location, status of team members, and status of supplies should be reported.
4. Any sighting or engagement with suspected violators should be immediately reported by radio to shore or office based colleagues.
5. Daily patrol reports should be written and filed in a central and secure location.

Appropriate Equipment and Supplies

Having regular access to adequate equipment and supplies is critical to the success of all field enforcement operations

A good place to start is to first determine what equipment is needed is to begin to ask the following questions:

1. What is the job that needs to be accomplished and what equipment is needed to do so?
2. Who will be using the equipment?
3. What is the equipment's impact on the success of operations?
4. How many pieces are required?
5. How often the equipment will be used?

6. Is it high or low maintenance? and
7. Can we afford it?

Many equipment purchases are made without careful consideration of what is really required, what is most appropriate for the operating environment, and whether the skills and funding are available to operate and maintain it.

The three key words governing the procurement and management of equipment are **Availability, Reliability, and Maintainability or ARM**, all of which are equally necessary for effective MPA management. They can be further explained as follows:

Availability - enough suitable equipment is ready and available when needed.

Reliability - equipment works immediately and does not fail when used.

Maintainability - service and repairs are straightforward, staff are trained, and spare parts are in stock or readily accessible.

Deciding what to buy - think ARM and make a note of the key technical requirements for the equipment. It helps to think ahead: e.g. two to four years for a computer, four to eight years for a vehicle, five to ten years or longer for a boat.

Consider the level of sophistication that is appropriate for the MPA, particularly if access to technical support, advice and troubleshooting, and repair may be difficult. It is best to avoid being tempted by suppliers offering equipment with attractive features that are not needed. Where relevant, try and balance quantity versus quality. For quality, the old adage "you get what you pay for" still applies.

Equipment costs include both the initial purchase price (usually the main focus of attention) and the maintenance costs. For large and expensive items such as vehicles and boats, the lifetime maintenance costs can be equal or greater than the purchase price. However, proper maintenance is essential to safe operation and therefore these costs should be taken into account. This is especially important to consider when choosing between different options for large pieces of equipment. For example, while the running costs of a diesel inboard engine may be lower than gasoline powered outboards the difficulty of maintaining an inboard and availability of mechanics may make inboard engines a worse option.

Other important considerations:

1. If there is a choice of suppliers, which one can offer the most cost effective backup and support?
2. Which critical spare parts should be purchased? Keep in mind that as equipment ages replacement parts may be more difficult to obtain. As a result, commonly available equipment is important to consider
3. What guarantees are being offered and against what failures or breakages?
4. If an overseas purchase is being considered, how will the guarantees be honored?
5. Are simple repairs and maintenance possible by the owner or does this invalidate the warranty;
6. What type of maintenance needs to be done; does it have to be sent away for maintenance or is there a nearby service shop?)

7. If staff training is considered necessary, who will provide it and where? Purchasing equipment without having sufficiently trained staff to operate and maintain it is a waste of resources and will quickly lead to problems.
8. Seek advice from other MPA managers and learn from their experiences.

Special Equipment for the Marine Environment: (Modified from IUCN, 2004)

Boats: Boats are used for many activities within MPAs including: patrols; transporting equipment, personnel and visitors; search and rescue operations; and research, surveys and monitoring. Boats are also a major investment, so think carefully and consult colleagues and other MPAs on what is really needed. **In selecting the type of boat, look carefully at its use, the sea-conditions it will be operating in, the skills available for both maintaining and using it, and the distance of the MPA from maintenance and support facilities.** In general, select hulls that are the thickest and strongest that the construction material will ensure a long service life.

Ensure all personnel who use or maintain boats are adequately trained, and that their responsibilities are clearly defined. Ideally have one main boat operator per boat and where necessary a deck hand. If possible have a trained boat mechanic on staff. Develop operational and maintenance routines for all boats and have key spare parts available (e.g. propeller pins, propellers, fuel filters).

Navigation equipment is also important. Lack of proper equipment is very widespread. In many places, there are no minimum requirements for carrying navigational equipment, such as a compass, charts or even a transistor radio, which may be used to take bearings on radio stations. However, this equipment should be included in any patrol operation.

Two way radios: In case of engine breakdowns or other mishaps, the first step towards rescue is to be able to contact other boats or shore stations. Near the shore, very high frequency radios (VHF) can be used, with a typical range of 30 miles.

Basic life-saving equipment should also be present on board vessels: This includes first-aid kits, life-buoys and life-vests, spare water and food supplies, spare parts for the engine and oars or a sail in case of engine breakdown. On small vessels, space is precious and designing multi-purpose safety equipment may be worthwhile. For instance, a sail that can also serve as a sea anchor, spray cover or to protect the catch from the sun is more likely to be taken along. The cost of safety equipment should be assessed against the high costs of search and rescue operations that have to be undertaken when boats are reported missing.

Backup Equipment and Supplies: The patrol team should always have back up equipment supplies including extra food and water, protection for the elements, fuel, back up batteries for electronics, and an alternative engine (with sufficient horse power to get a stranded vessel to shore). Primary considerations should be safety and preparedness in conducting any patrol operation.

Checklist of Recommended Equipment and Supplies for Field Operations

1. Dependable patrol boat with two engines (or a main engine and back up small engine often referred to as a kicker)
2. Uniform and protective clothing

3. Life jacket for each crew member
4. Flash light/emergency light
5. Sailing and harbor chart
6. Parallel ruler

7. Compass
8. Still camera
9. Handheld GPS
10. Compact video recorder
11. Compact tape recorder
12. Pen/markers and paper
13. Necessary documentation and report forms
14. Boarding checklist
15. Binoculars
16. Baton, knives/service pistol (for uniformed enforcers)
17. Handcuffs and key
18. Protective gloves
19. Two-way radio
20. Tape measure/ steel tape
21. Sounding tape
22. Sufficient food and water for all crew
23. First Aid Kit
24. Portable shelter for overnight patrols

Activity 08: Characterizing your Field Operations

This exercise will help you to characterize your Hard Enforcement Field Operations as a foundation for developing your Collaborative Enforcement Program Plan.

Instructions

Referring to the map you developed in the General Program Assessment (Session Two), answer the following questions: Describe the hard enforcement elements (field surveillance and patrolling program) that you currently have in place by answering the following questions.

1. What type of surveillance and patrolling do you currently conduct?
2. Where do the majority of your field surveillance and patrols take place and why (indicate on the map)?
3. How many days per month do patrolling and surveillance activities take place?
4. Describe your field team composition, skills, and knowledge.
5. How is your field team trained?

6. What equipment and supplies do you have to support surveillance and patrolling?

7. Do you have a Standard Operations Procedure in place for joint field surveillance and patrolling?
8. Describe any safety procedures that you have in place?
9. Overall how effective do you feel your field surveillance and patrols are at addressing violators (including deterring them or apprehending them?). Please explain the reasons for your level of effectiveness.

Session Six: Coordination with the Justice System for Effective Prosecution

Overview

Laws are created to regulate and prohibit acts that may cause harm to the environment; however, they will not serve their purpose unless coupled with effective prosecution. Once a criminal investigation has been completed, the case goes to the prosecutor. The job of the prosecutor is very important and includes working with the police during the investigation, determining if there is sufficient evidence to bring the case to court and what charges to pursue,

helping to guide cases through the many steps of the criminal justice system, and ultimately proving that the suspect has committed a crime.

Effective prosecution aims to increase compliance with rules by punishing those who participate in prohibited activities. There are a number of factors that can hinder the prosecution of environmental crimes including: limited resources, loopholes and lack of integration in the laws; poor inter-agency coordination; lack of environmental awareness by the public, enforcement agencies, and the judiciary; and corruption. It is the job of the prosecutor to overcome these challenges and to ensure the law is upheld and those violators are brought to justice.

The sustainable use of natural resources can bring about economic, social, and environmental benefits to communities rather than short term benefits to a limited number of individuals; therefore it is essential that violators are brought to justice. Some of the techniques that have been proven to help improve prosecution of environmental crimes include: awareness-raising training for police officers, prosecutors, and judiciary officials to increase environmental knowledge; reviewing existing laws to remove loopholes and provide for clearer guidance in the application of laws; improving collaboration and sharing of resources among law enforcement agencies; and the use of outside legal experts and expert witnesses to improve prosecution efficiency. In addition establishment of separate institutions that are responsible for dealing with environmental crimes such as special courts or traditional councils has also been shown to be effective in improving enforcement.

Session Objective

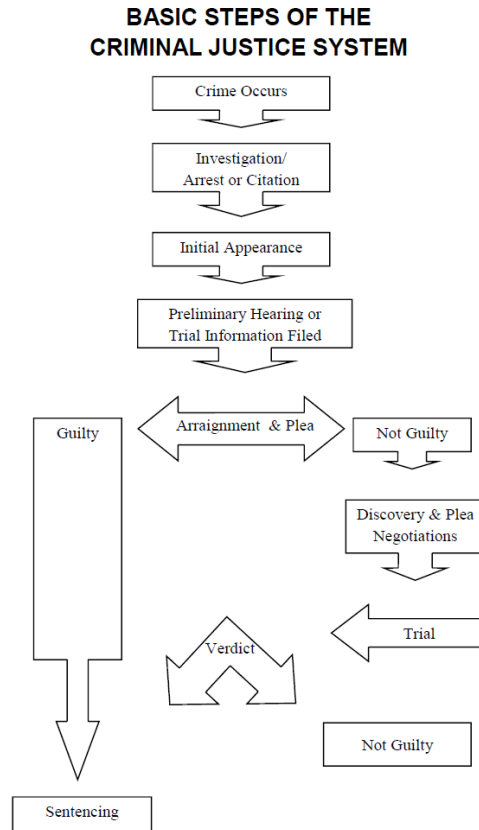
1. To understand the steps in prosecution;
2. Understand the importance of effective prosecution, barriers to effective prosecution, and strategies to overcome the barrier.
3. Understand how to increase the awareness of the judiciary of the importance of natural resources to local communities as a strategy to strengthen case management and prosecution
4. Understand the importance of effective and appropriate penalties.

The Criminal Justice System and Role of the Prosecutor

(Modified from: Akech & Mwebaza, 2010)

Laws are a system of rules that a particular community recognizes as regulating the actions of its members and may be enforced by the imposition of penalties. Criminal law aims to deter acts that pose a danger to the sustainable resources and to the people's health. Laws; however, will not serve their purpose if they are not paired with effective prosecution.

Prosecution entails proving that the crime was actually committed. A prosecutor is a lawyer who represents the side in a court case that accuses a person of a crime and who tries to prove that the person is guilty. The prosecutor is also responsible for guiding a case through the many steps of the criminal justice system (see figure below).



Basic Steps of Criminal Justice System; (McElreath et al., 2014)

Under most criminal justice systems, prosecutors have considerable freedom in determining when, whom, how, and even whether to prosecute a suspect for apparent violations of the criminal law.

The prosecutor has power to:

- Initiate or forgo prosecutions
- Select or recommend specific charges
- Terminate prosecutions

There are a number of factors that need to be taken into account before a decision to prosecute is made. These include:

- **Whether there is sufficient evidence to proceed:** It is the duty of the prosecutor to weigh up all the evidence and then decide whether the evidence warrants a prosecution.

- **Accused person's legal and moral responsibility:** This can also be thought of as one's blameworthiness in the commission of a crime. Prosecutors should consider the degree of the accused person's connection with the offence in comparison with others involved or whether a person unintentionally committed a crime when deciding whether to pursue prosecution.
- **Public interest:** Crimes that pose a danger to the health of humans or the environment typically are considered to be of sufficient public interest to warrant prosecution. In some cases this may include relatively minor offenses that have a cultural significance, such as in the case of protecting an MPA from illegal fishing by outside groups to insure local small-scale fishing communities continue to have access to the resources they need.
- **Nature and seriousness of offence:** The prosecutor should take into account the circumstances surrounding the offence. Limited public resources should not be wasted on prosecuting inconsequential cases or cases in which the violation is only technical.
- **Deterrent effect of prosecution:** Deterrence of criminal conduct is one of the primary goals of the criminal law. Relatively minor offenses may have a substantial cumulative impact if they are committed repeatedly; therefore, in some cases it may be desirable to prosecute even relatively minor offences.
- **Jurisdiction of court:** Before a court proceeds with a case, it must be shown that the court has **jurisdiction**, or the powers to hear the case. A court's jurisdiction can be limited in several ways including the subject matter it may hear, the type of crimes, or the geographical area within which the crimes took place.

Drafting Charges

Once a decision to prosecute has been made, the prosecutor needs to decide what charges to bring prior to the initial hearing.

What is a charge?

A **charge** is a written statement of complaint brought against an accused person in a court of law. In general, charges will be drawn by the prosecutor. A charge consists of two parts:

- **The statement of the offence** explains the particular sections of the law that allegedly have been breached.
- **The particulars of the offence** contain the date and place where the offence is alleged to have been committed the subject matter of the charge, and the identity of the complainant and that of the accused person.

Initial Hearing, Arraignment, And Pleas

During the initial hearing the accused is arraigned. **Arraignment** is a formal reading of a criminal charging document in the presence of the defendant to inform the defendant of the charges against him or her. In response to arraignment, the accused is expected to enter a plea. The **plea** takes the form of the accused person being asked to give an answer to the charge, after it has been read to him or her in a language he or she understands. Acceptable pleas vary among jurisdictions, but they generally include "guilty", and "not guilty"

- Where the accused person enters a plea of guilty, the court will proceed to consider an appropriate sentence.
- But where the accused person pleads not guilty, the court will set a date on which the case can be heard and it goes to trial.

Trial

A **trial** is a coming together of parties to a dispute, to present information (in the form of evidence) in a formal setting such as a court that may include a judge, jury, or other designated authority, in order to achieve a resolution to their dispute.

The order of the trial generally is as follows:

1. Presentation of evidence by the prosecution
2. Presentation of evidence to prove the defense by the accused
3. Presentation of rebuttal of evidence by the prosecution, and by the accused.

Presentation of evidence

The prosecutor must place before the court all the facts concerning the case and must be fair, frank, courteous and respectful when doing so. **It is the duty of the prosecutor to make available to the court all the evidence, both favorable and unfavorable.**

What is evidence?

Evidence is 'any information or proof that is presented legally at a trial for the purpose of clarifying or helping to establish the truth in the minds of the court. Therefore, evidence is any fact, item or documentation that provides verifiable information that can be used to prove or support an assertion or allegation. This can include physical items as well as photographs, notes, reports, statements, samples, diagrams, and records.

The "Best Evidence Rule"

Evidence must be authentic and reliable.

- **Authentication:** is the process of confirming the identity of an object or person, and comparing its attributes to what is known about the object, and what existing documentation says about it. It might involve confirming the identity of a person by validating their identity documents, or conducting tests to identify that a product is composed.
- A **chain-of-custody:** Is a record of the seizure, custody, control, transfer, analysis of evidence since it was discovered. Evidence must be handled in a careful manner to

avoid later allegations of tampering or misconduct which can compromise the case of the prosecution.

Testimonial Evidence

Another type of evidence can be **Testimonial evidence**. Testimonial evidence is statements or the spoken word from the victim(s) and/or witness(es). As a general rule, witnesses may testify only on matters that they themselves have witnessed or observed. **Testimony given on matters not directly observed by a witness is considered hearsay, and is not admissible**. Witnesses are required to offer their highest oath of commitment: 'tell the truth, the whole truth, and nothing but the truth'. Failing to tell the truth under sworn testimony is called **perjury**. Perjury can lead to loss of credibility of the witness; and potential arrest.

In many cases, witnesses will be called to testify long after the occurrence of the crime they witnessed. In some cases, this can be months or even years. By that time, it is natural that time and events may have clouded the memory of the witness. There for it is important for prosecutors to prepare any witnesses for the prosecution (see **Handout X.X** for tips on how to prepare a witness).

Enforcement Officers as Witnesses: (Source: DENR, 2001)

In some situations a law enforcement officer may have to testify in court. The most important thing is for them to remember to stay calm. Ensuring the officer arrives at the specified time, dressed appropriately, and seeing the prosecuting officer before the proceedings can lessen the stress of appearing and testifying. All the exhibits that are to be used should also be present. When testifying, the officer should face the judge and speak clearly and not too fast. In the witness box, the officer should sit or stand with an erect posture, which helps portray a professional attitude. If the question is unclear to the testifying officer, he/she should ask for the question to be repeated or clarified. It is important to only answer the questions that are asked. Information should not volunteered; but if it is it should always be relevant to the case.

The testifying officer should be prepared to give testimony as to the various exhibits presented in court and to the identity of the accused. He/she should be able to confirm statements made by other government witnesses, and to reply to any other questions asked by the judge, the defense, or the prosecutor. Upon completing the testimony, the officer should wait for the judge's permission before stepping down from the witness box.

Activity 09: Effective Prosecution of Environmental Crimes

Purpose

To help the enforcement team be aware of potential problems with evidence and testimony when deciding to prosecute a crime.

Instructions

For this exercise each group should go over the supplied scenario and discuss the following questions. Be sure to appoint someone to take notes and report back to the class.

Questions:

- Are there any issues with evidence as the case was presented by the prosecution's case?
- Does the prosecution have a good case and explain why?

Scenario:

On the morning of 3 June 2014, the executive director of the Apo Reef National Park Service (NPS) received a telephone call from a field officer who said that she had found the partial remains of ten dead sea turtles in the National Park. Three days later, a customs official, John Charles, came upon eight turtle shells while inspecting some cargo scheduled for shipment to China, which had been labeled 'handicrafts'. The customs official, Inspector Mike, then alerted the police and the NPS.

The police arrested Budu Gordon, who was in possession of the eight turtle shells at the time of the pre-shipment inspection, and charged him with illegally trading in a protected species (sea turtles). At the trial, the prosecution's case against Budu Gordon, among other evidence, included the testimony of a resident of Tuban Village, which is adjacent to the National Park. The resident, Alert Ali, testified that on the night of 2 June 2014 at about 10 pm, he saw a small open fishing vessel that carried things that looked to him like turtle shells and loaded coolers, which appeared to have blood stains on them. He testified that he remembered the first four digits of the registration number of the boat, which he wrote down. However, he admitted that he could not tell how many people were in the vehicle or who they were. The prosecution also offered testimony that the said truck was later found parked at a pier owned by a company of which Budu Gordon is a director. But the prosecution was unable to locate the driver of the truck.

The prosecution's final witness was a fuel attendant, Keen Mercy, at a fuel pier, which is located about 50 km from the National Park. Keen Mercy testified that she remembered seeing a small open fishing vessel, which was whitish in color and had what looked like dried blood stains on it. She testified that the hull of the vessel was covered by a canvas, and that the vessel appeared to be overloaded. Further, she testified that the driver and his companion looked nervous and were in a great hurry. She thought of calling the police, but since her shift was ending, and she was in a hurry to get home, she decided not to. The prosecution then closed its case, satisfied that it had established its case against Budu Gordon.

Verdict

The verdict is the decision by the court (the judge or jury) on whether the accused is guilty or not guilty of the offense charged. Once the court (the judge) receives the verdict, the judge enters judgment on the verdict. The judgment of the court is the final order in the case.

- If the accused is found guilty, the court will proceed to conviction and sentence.
- If the accused is found not guilty, the court will proceed to acquit and discharge him or her.

Sentencing

A sentence is an order by the court as a consequence of a conviction. Courts will hand down various types of punishments, depending on the nature and circumstances of the crime in question. In most cases, particular classes of crimes have maximum and minimum sentences that have been pre-determined and it is the court's decision on what level of sentence to order based on several factors in the case. Sentencing should take into account the following factors:

- The sentence or penalty should be sufficient to deter environmental crime effectively. For example: sentences, including imprisonment and monetary penalties, should exceed the economic advantage gained by the defendant from non-compliance.
- The defendant's role in the offence, that is, whether the defendant was a leader or organizer or only a participant in the crime
- Knowledge of the illegality of the conduct
- Take into account general characteristics of the defendant, such as level of education or experience.
- If the defendant has previously been convicted of environmental crimes, the penalty should be increased.
- Consider social and cultural issues and sensitivities.

As we have previously discussed coastal marine environment is protected by a range of laws. The resulting regulations and penalties can vary for a number of different reasons including the location of the offense (inside vs outside of an MPA), the type of resources caught (e.g. were there any protected species caught?), the type of fishing method used (e.g. hand line verses bomb fishing), as well as if other prohibited or regulated acts were conducted (e.g. were there immigration violations as well as fishing violations?).

For example in Indonesia there are large differences in the penalties for offenses under the Fisheries Act compared with those in the Criminal Code. Under the Fisheries Act the penalty for using explosives for fishing is six years in prison and a penalty of up to Rp. 1.2 billion (US\$133,000); however, for a similar violation under the Criminal Code, the penalty is ten days in jail or a fine of up to Rp. 750 (US \$0.10). Prosecutors; however, frequently prefer to use the Criminal Code verses the Fisheries Act is they are more likely to secure a conviction under the Criminal Code. The unfortunate side effect of this is that the reduced financial penalties of the Criminal Code frequently do not deter future violations.

The type of resources exploited may also affect which regulations and penalties apply. In Indonesia it is a crime for any person to catch, purchase, possess, or transport whale sharks. On the other hand while manta rays are also covered by the same law, they are not listed under international treaties as being a threatened species, therefore the law only prevents taking or catching of manta rays, but not their purchase, possession, or transport.

Barriers To Effective Prosecution

There are a number of problems that hamper the effective prosecution of environmental crimes. They can be summarized as (Modified from: Wellsmith, 2011; Dirhamsyah, 2005):

- Limited enforcement resources including funds, personnel, and facilities;
- Loopholes and lack of integration in the laws;
- Lack of inter-agency coordination among enforcement agencies;
- Lack of Environmental Awareness by General Public and Enforcement Agencies
- Lack of judicial court system that is aware and committed to resource issues;
- Corruption.

Limited Enforcement Resources

This includes insufficient numbers of personnel and resources such as vehicles and other equipment, and insufficient budgets for maintenance and personnel costs. In the Philippines enforcement agents cite the lack of equipment (e.g. patrol boats and communication equipment), as one of the major reason for their inability to arrest violators. As a result while community members detected 8,102 incidents of cyanide-fishing from 1999-2002, police records show that only 15 arrests were made (Dirhamsyah, 2005).

Limited funding also often results in understaffed and under-resourced enforcement agencies and judicial offices. The training of prosecutors and judges may also be weak in general and does not usually involve specific training in natural resource law. It is important that prosecutors, judges and their support staff be properly trained and that their departments are adequately staffed.

Loopholes and Lack of Integrated Laws

Loopholes are ambiguities or omissions in the law through which violators may avoid prosecution. For example In Indonesia, the use of poisons or explosives for fishing is prohibited. According to the Fisheries Law, an official can arrest an offender only when they are found illegally fishing on site. However, as written the law requires an authorized officer to be in the water with a camera photographing an illegal fisherman as he poisoned the fish for the prosecution to be successful. Hence, fishermen committing offences, who see an approaching patrol boat, simply drop their illegal gear or trawl nets under water and wait until the patrol boat leaves the area.

Another recurring problem in prosecuting cases is the waning interest of complainants and witnesses. The government does not provide financial support to complainants and witnesses for attending court proceedings. When a case drags on, especially when a favorable judgment does not appear to be forthcoming, complainants and witnesses tend to avoid the proceedings. This is also the case when a law enforcement officer who is directly involved in the case has

been assigned to other areas, making him or her unavailable when the case is called. In situations like these, the accused invokes his or her right to a speedy trial, consequently prompting the judge to dismiss the case.

Lack of Inter-Agency Coordination

Coordination among the various agencies responsible for enforcement can be a serious problem. Lack of clear delineation of duties and responsibilities, can lead to overlap and duplication of efforts. For example in Indonesia's Seribu Islands five oil spills have occurred since 2003; however, there has been no effective response action from government. During the most recent spill, several government enforcement agencies, including the MMAF, the State Ministry of Environment, and the Marine National Park of Seribu Islands, as the representative of the Ministry of Forestry (MOF), sent their officers to investigate the problem. However, there was no coordination among agencies and the investigation activities were fragmented with each agency working independently. Their investigations were separate based on their specific mandates. This makes it extremely difficult to know which agency should prosecute the violators. As a result, to date, not one oil company that operated in Seribu Islands has been prosecuted.

Lack of Judicial System That Is Aware and Committed to Resource Issues

In some cases the existing courts systems cannot appropriately address the complexities that arise from illegal marine and coastal resources exploitation. For example in Indonesia the current judicial system has four types of courts: general courts, religious courts, military courts and state administration courts. All environmental cases proceed to the general court. Consequently, environmental cases are treated in the same way as other general court cases, and are handled by judges and attorneys who only have a very 'general' knowledge of relevant law. This lack of specific knowledge of the environment and marine ecosystems has resulted in difficulties in the prosecution of alleged violators. If the case proceeds to the court, the usual penalty is minimal and provides little deterrence. For example, a contentious issue occurred with regard to the punishment of seven illegal dredging vessels in the District Court of Tanjung Pinang. The district court punished the offenders with a fine of Rp. 30 millions (US\$3,100) for each vessel. The judge's decision was based solely on illegal mining without any consideration of the destruction of the marine environment caused by these illegal activities.

In the Philippines the police also face the daunting task of prosecuting the cases at the Municipal Circuit Trial Courts (MCTC) because no public prosecutor can attend to them. It bears noting that Chiefs of Police have no formal training in prosecution. In fact, many people consider the MCTC proceedings to be absurd because the judge dictates to the Chief of Police the questions to ask, which objections to raise and the oral motions to file in open court. Because of the police chiefs' lack of experience in litigation, they cannot prove that the accused is guilty beyond reasonable doubt, which is what the law requires for a conviction. It is clear, therefore, that members of the court do not have the capacity, commitment or incentive to address marine environmental problems appropriately.

Lack of Environmental Awareness by General Public and Enforcement Agencies Environmental crimes differ from most other types of crime because there is no victim to report the offence to the authorities resulting in most environmental crimes never being discovered, reported, or recorded. Not knowing the true extent or patterns of environmental crime is problematic for enforcement in a number of ways. If the extent of crime is underestimated this may impact

upon the severity with which it is viewed, thus the level of punishment it carries. In addition, if the amount of environmental crime is severely underestimated and the true nature of it unknown, public awareness and support for its reduction is likely to be low, thus leading to continued social acceptance of violators.

This lack of awareness towards the extent, impact, and seriousness of environmental crime occurs at all levels, including government officers, police, attorneys and judges. While some individual violations may not have a devastating impact on marine resources, there are cases where violations are so severe that they can damage populations of key species or the health of the local environment for many years. Likewise, the cumulative impact of even less severe violations can result in the decimation of fish stocks and marine environments that local people depend on for their daily survival. It is extremely important that people at every stage of the enforcement chain understand that environmental and marine resource crimes are serious and can have long-term impacts. These cases need to be prosecuted and adjudicated in ways that create a significant deterrent to continue violations.

Many judges do not have the capacity to understand or handle environmental cases from a scientific point of view. This has caused many violations to go unpunished. For example, many cases of forest fires in Borneo have not been punished due to the lack of knowledge and understanding of the district attorney and judge about the processes and negative impact of such activities on the environment. This, coupled with the resources available to illegal fishers and loggers to 'influence' decisions, reduces the potential to change attitudes.

Corruption (Sources: ARD, 2005; Martini, 2013)

Corruption is seen as one of the most critical factors allowing environmental crimes to continue to happen, including poaching and the illegal trade in fish and wildlife products. In addition 'traditional' organized criminal groups involved in illegal activities such as the trafficking of humans, drugs, and arms are increasingly involved in the most profitable activities of environmental crime, of which wildlife trade is one of the most lucrative (Milliken & Shaw, 2012). In addition, the risks involved are relatively low in comparison to other illegal activities due to a lack of enforcement and weak penalties. Corruption may facilitate many of the crimes along trade routes, from poaching (e.g. illegal payments to issue fishing licenses, bribery of patrol officers), to trafficking (e.g. bribery of customs officials, illegal payments to issue export certificates, etc), to law enforcement (e.g. bribery of police officers and prosecutors to avoid investigations; illegal payments to manipulate court decisions or influence legislatures actions). For the system to work, the integrity and accountability of people at all steps of the enforcement chain must be ensured, and their independence and impartiality protected. This requires measures to shield officers from corruption, nepotism and coercion. This can be accomplished in a number of ways:

- **Independent judicial appointments.....**Appointments should be made based on merit and professional qualifications to ensure the judiciary is independent from both the executive and the legislative. The involvement of civil society groups or professional associations in the process could help to increase transparency.
- **Clear criteria regarding salaries, tenure, transfers, and assignment of cases ...** is necessary to avoid that active or non-corrupt judges are punished (e.g. transferred to a remote location) and those ruling in favor of the government are rewarded.

- **Training** ...of judges and prosecutors on environmental crimes as well as on ethical and anti-corruption issues.
- **Establishment of a judicial code of conduct**...providing guidance on ethical and possible conflict of interest issues. The code should be developed and implemented by the judiciary to ensure buy-in from judges and court officials.
- **Establishment of a whistle-blower policy**...so that lawyers, citizens, prosecutors, among others can report suspected or actual cases of corruption;
- **Establishment of an independent judicial body** ...responsible for overseeing the judiciary activity, investigate and sanction potential wrongdoings and unethical behavior;
- **Establishment of asset disclosure mechanisms** ...and conflict of interest disclosures for judges and prosecutors;
- **Increase transparency** ...with regards to judicial decisions, as well as the activities conducted by the judiciary (e.g. establishing an online database containing the cases related to environmental crime, number of convictions, etc.).

Improving Prosecution Through Training, Awareness Raising, Special Courts And Local Councils

Despite the many challenges prosecutors and law enforcement officers face, many have found ways to bring natural resource crime violators to justice. Some of the techniques that have been reported include:

- Awareness-raising training to increase environmental knowledge among the police officers, prosecutors and judges;
- Reviewing existing laws to fix deficiencies and to provide for clearer guidance in their application;
- Improved collaboration and sharing of resources, personnel, and information on environmental crimes, among the various law enforcement agencies;
- Use of expert witness testimony or outside legal experts to help juries and judges understand the importance of environmental crimes and help to achieve swifter criminal convictions. Swiftness of the punishment is one of the conditions in ensuring the deterrence from committing an unlawful act;
- The establishment of separate institutions that are responsible for dealing with environmental crimes such as special courts or traditional councils.

Advantages of Specialist Environment Courts (Source: Preston, 2012):

- Having a comprehensive, integrated jurisdiction to deal with a range of environmental matters, frequently providing a “one-stop-shop” for criminal and civil enforcement.
- Bringing together in the one court, officers and both judges and non-lawyer specialists with knowledge and expertise in environmental law. Bringing experts together creates a synergy, facilitating free and beneficial exchange of ideas and information.

- Facilitating lawyers who bring environmental matters and officers who hear these matters to continue to develop a specialized knowledge of environmental law issues.
- Developing innovative practice and procedure so as to facilitate access to justice, including providing high penalty jurisdiction by giving environmental courts regional status.
- Being better positioned to move more quickly through complex environmental cases, achieving efficiencies and reducing the overall cost of litigation.
- Relieving backlog in other courts by separating them from the body of pending cases and then resolving more efficiently matters involving environmental issues.
- When coupled with the use of media, environmental courts can be used to draw attention to and help attract public support against environmental crimes, increasing public faith in the system and encouraging bystanders to report crimes and come forward as witnesses.

Traditional courts or councils can also be an effective way of improving the prosecution of environmental crimes. These types of systems work best where customary marine law is still maintained and acknowledged. It is also important that the traditional council's rights formally recognized by the government and that the government and fishing communities work together in crafting, implementing, and evaluating the policies related to marine tenure. For example in Indonesia explicit legal recognition needs to be given to the concepts of customary law (*hukum adat*) and local territorial rights (*hak ulayat*). The following case study on the Yillu Adat Council shows how these types of traditional courts can work.

Case Study: Yillu Adat Council (Source: WILDAID, 2012)

In November 2005 Misool Eco Resort (MER) in the province of Papua Indonesia worked with the community Yillu to protect a No-Take Zone (NTZ) within the Misool Marine Protected Area. MER has worked with the government, community leaders, and the Adat council to develop mechanism that levy fines of between 5,000,000 and 10,000,000 IDR (approximately US\$500- US\$1,000) per boat that is caught fishing inside the NTZ.

In May 2011 the Adat ruling was enacted for the first time and two shark fishing boats were apprehended just

Activity 10—Strategies to Effective Prosecution of Environmental Crimes

Purpose

to be aware of potential problems to conducting an effective prosecution and developing strategies to overcome them.

Instructions

1. As a team, list potential barriers that must be understood when mounting an effective prosecution of an environmental crime.
2. In relationship to these barriers, identify the elements or tools needed to overcome them and to develop a successful prosecution.

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