

SOLUTIONS IN FOCUS:

Community-led successes in marine conservation



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Editors

Marie Fischborn, Zhanna Levitina

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Imre Sebestyén jr. / UNITgraphics.com

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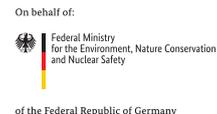
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Contents

PANORAMA - Solutions for a Healthy Planet	4
The “Solutions in Focus” series	6
The critical importance of governance diversity	8
Other effective area-based conservation measures: an update (August 2018)	10
1. Addressing unsustainable fishing in Fiji through improvements to LMMA management	12
2. Kuruwitu Conservation and Welfare Association (KCWA)	14
3. Kick-starting marine conservation through local fisheries management	16
4. Community-initiated Trao Reef Locally Managed Marine Area	18
5. Participatory Marine Protected Area Management	20
6. Community-based approaches for restoring biodiversity in coastal parks	22
7. Gender Dimensions of Community-Based Management of Marine Protected Areas (MPAs) in Siquijor, Philippines	24
8. Pioneering climate change adapted MPA management in Madagascar	26
9. Community-based Conservation at Scale	28
10. Communities leading sustainable fisheries management	30
11. Ensuring marine protection through Locally Managed Marine Area at Vamizi island in Mozambique	32
12. Luru Ridges to Reefs Protected Area Network (Luru PAN)	34
13. MPAs as part of solution towards a resilient eco-city	36
14. Integrating community health services with local marine management efforts	38
15. Building positive links between the Ostional community and the conservation of Olive ridley sea turtles	40
16. Ensuring fish and the lives of those who depend on them	42
17. Community participation in PA management provides development benefits	44
18. Kawawana community heritage area: good life recovered through conservation	46
19. Balancing Environment Conservation and Economic Gain Through Community-based Tourism	48
20. Micronesia Challenge: A Regional Commitment for Protected Area Management	50

PANORAMA - Solutions for a Healthy Planet

PANORAMA – *Solutions for a Healthy Planet* is a global partnership initiative to facilitate learning from success in conservation. It promotes examples of inspiring solutions that showcase how nature conservation can benefit society. Through a modular case study format, solutions are being dissected into their replicable “*building blocks*” and their broader application is supported through cross-sectoral learning and exchange, relying on online as well as offline mechanisms.

PANORAMA allows practitioners to share and reflect on their experiences, increase recognition for successful work, and to learn with their peers how similar challenges have been addressed around the globe.

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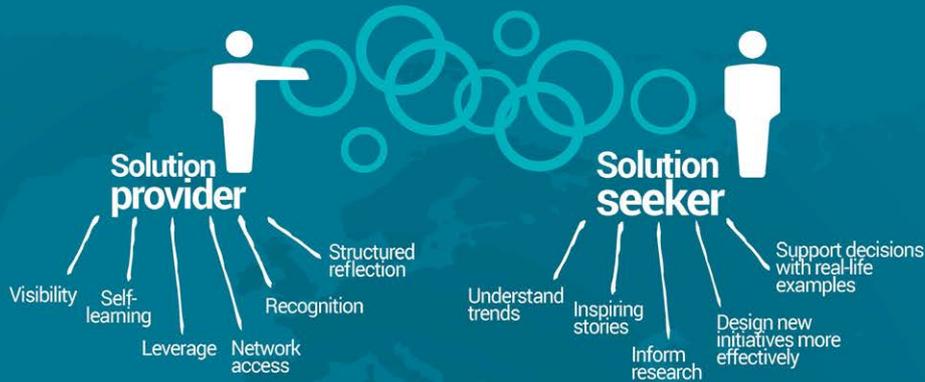
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The “Solutions in Focus” series

This booklet is part of a series of compilations assembling PANORAMA solution case studies on a defined topic. “Solutions in Focus” zooms in on a topic of interest covered by PANORAMA, allowing to explore common elements and shared learnings across success stories. It is a snapshot of the PANORAMA portfolio at a given time, rather than a representative assembly of selected “best practices” on the issue at hand.

Further “Solution in Focus” booklets:

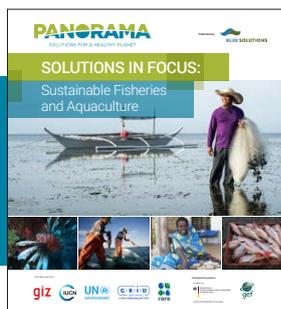


Transboundary Protected Area Solutions

<https://portals.iucn.org/library/sites/library/files/documents/2016-081.pdf>

Financing Sustainable Management of Marine and Coastal Biodiversity

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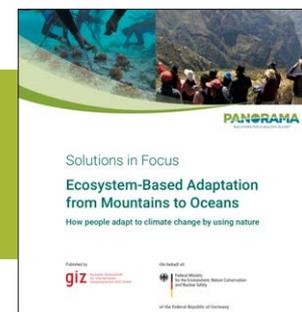


Sustainable fisheries and aquaculture

<https://portals.iucn.org/library/node/47780>

Ecosystem-Based Adaptation from Mountains to Oceans - How people adapt to climate change by using nature

https://www.adaptationcommunity.net/wp-content/uploads/2018/09/giz2018-en-panorama-EbA-solutions-in-focus_web.pdf





MPA watch station at Trao Reef © MCD

The critical importance of governance diversity

***Jennifer Kelleher, Programme Officer, Governance, Equity and Rights
IUCN Global Protected Areas Programme***

The trend towards increasing recognition of governance diversity in protected and conserved areas has gained huge momentum in recent years, including in marine and coastal areas. Agreed as long ago as 2004, the CBD Programme of Work on Protected Areas called for the recognition of “a broad set of protected area governance types related to their potential for achieving biodiversity conservation goals in accordance with the Convention, which may include areas conserved by indigenous and local communities and private nature reserves”. This prompted a strong focus on the governance of protected and conserved areas, and ongoing efforts to better understand the diverse situations that exist.

Governance diversity is a powerful concept for conservation, equity and livelihoods. In addition to the conventional state-led model of decision making by government (at different levels and across different institutions), the IUCN and the CBD recognise three other types: shared governance by various rights-holders and stakeholders together, governance by private individuals and organisations, and governance by indigenous peoples and/or local communities. In marine and coastal areas, this latter category may include locally managed marine areas, or LMMAs.

These diverse governance types are vital for conservation in the coastal and marine developing world. Too often, conservation does not gain buy-in from local communities; when a marine protected area is created, rules and restrictions to the resources increase and this excludes them from sources of food security and other economic and non-cash benefits. It threatens the way of life that the ocean has fostered in such places, where the sea is interwoven into the cultural identity and rich heritage of these communities. Their needs have not been considered, nor has their know-how and traditional ecological knowledge been taken into account in the designation of new marine protected areas. Further, new restrictions on access don't necessarily address needs, nor do they contemplate the ongoing drivers and threats faced by communities, or help to deal with the exploitation of resources by outsiders,

the effects of extractive industries, industrial fishing and commercial poaching. Disempowered, many fishers become poachers themselves when excluded from these zones and their role in governing natural resources.

By passing the reins to local communities through shared governance such as the Beach Management Units (BMUs) in Kenya, or LMMAs in Fiji, and by giving them legal rights to protect their own resources, an authentic and valuable sense of ownership provides the incentive to govern and manage their natural resources. The goals of biodiversity conservation to restore degraded ecosystems can effectively be reconciled with the needs of local communities and sustainable and small scale fisheries management methods that replenish fish stocks and other marine resources.

The Strategic Plan for Biodiversity 2011-2020's Aichi Target 11 makes provision for the recognition of areas that qualify as protected areas, but also for the recognition of "other effective area-based conservation measures (OECMs)". Many of the examples of marine and coastal governance and management may well conform with this latter definition, whether conservation may not be the primary objective, but where effective governance results in conservation of biodiversity being achieved in the long-term.

The PANORAMA - *Solutions for a Healthy Planet* initiative seeks out and highlights successful examples of conservation practice across a range of topics. In the current volume, a suite of examples that illustrate the diversity of approaches regarding governance of protected and conserved areas in the marine realm is offered for reflection and learning. We invite you to peruse these examples and draw your own conclusions on whether they conform to the protected area definition or the broader concept of OECMs. In the long-term, it is hoped that these best practices for the protection of our precious blue planet will move like waves across the world, influencing and engaging a wide spectrum of users to apply their lessons or to contribute their own examples.

Other effective area-based conservation measures: an update (August 2018)

Harry Jonas, Kathy MacKinnon and Dan Laffoley

IUCN WCPA Task Force on other effective area-based conservation measures

This “Solutions in Focus” publication introduces examples of marine protected areas (MPAs) under various governance types as well as management approaches that likely do not fall under the IUCN definition of a ‘protected area’ but might qualify as ‘other effective area-based conservation measures’ (OECMs).

Target 11 of the Convention on Biological Diversity’s (CBD) Strategic Plan (2011-2020) refers to “networks of protected areas and other effective area-based conservation measures”. CBD Parties subsequently called for guidance on OECMs. In response, the World Commission on Protected Areas (WCPA) established a Task Force in 2015 to develop guidance for IUCN members and CBD Parties on the definition and application of OECMs. The Task Force has convened three technical workshops in 2016–2017 and developed and shared draft *Guidelines for Recognising and Reporting OECMs*, which were reviewed widely by a range of stakeholders, including CBD National Focal Points.

The draft IUCN/WCPA *Guidelines* were used as background materials at two expert workshops hosted by the CBD Secretariat in February 2018, which considered OECMs and marine protected areas and OECMs as they relate to coastal and marine ecosystems. As an outcome of those workshops, a revised definition of OECMs and voluntary guidance for identification and management were submitted to the 22nd meeting of the CBD’s Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA 22). WCPA also published a Special Issue of the journal *PARKS* on OECMs to inform the discussions at SBSTTA.

SBSTTA deliberated upon and eventually adopted a draft decision on ‘Protected Areas and Other Effective Area-Based Conservation Measures’. The draft decision contains a refined definition of an OECM, based on the one proposed by IUCN/WCPA, namely:

“A geographically defined area other than a Protected Area, which is governed and managed in ways that achieve positive and sustained long-term outcomes for the in situ conservation of biodiversity, with associated ecosystem functions and services and where applicable, cultural, spiritual, socio-economic, and other locally relevant values”.

The draft decision will be considered again at COP 14 in November 2018 at Sharm El-Sheikh in Egypt.

Other effective area-based conservation measures can help deliver greater representativeness and connectivity within protected area systems and provide an exciting opportunity to recognize and engage a broader range of stakeholders in conservation management. However, there are important qualifications for marine areas. These include the need to manage the ocean as a whole through sensitive, real and effective management. By definition OECMs must lead to the in situ conservation of biodiversity and the management measures must benefit the entire ecosystem, not only select species. The temptation by some will be to report all fisheries management measures as OECMs to misleadingly inflate global ocean protection figures. In reality, many fishery management measures will be more accurately reported under Aichi Target 6, which celebrates sustainable, legal and ecosystem-based fisheries management, amongst other outcomes, and currently remains under-reported.

IUCN WCPA and specifically the OECMs Task Force are committed to further developing and testing the OECM guidance in pilot countries to assist nations in meeting Aichi targets and further promote conserved areas beyond 2020, including through PANORAMA.

Further reading:

WCPA Task Force on OECMs: <https://www.iucn.org/theme/protected-areas/wcpa/what-we-do/oecms>

IUCN/WCPA, draft Guidelines for Recognising and Reporting OECMs: https://www.iucn.org/sites/dev/files/content/documents/guidelines_for_recognising_and_reporting_oecms_-_january_2018.pdf

CBD SBSTTA 22, draft decision on ‘Protected Areas and Other Effective Area-Based Conservation Measures’: www.cbd.int/doc/c/9b1f/759a/dfcee171bd46b06cc91f6a0d/sbstta-22-l-02-en.pdf

Jonas, H. (ed.), 2018. Special Issue of *PARKS* on OECMs. <http://parksjournal.com/list-of-papers/>

Laffoley, D., N. Dudley, H. Jonas, D. MacKinnon, K. MacKinnon, M. Hockings, and S. Woodley, 2017. An introduction to ‘other effective area-based conservation measures’ under Aichi Target 11 of the Convention on Biological Diversity: origin, interpretation and some emerging ocean issues. <https://onlinelibrary.wiley.com/doi/full/10.1002/aqc.2783>

Jonas H. and D. Laffoley, 2017. Exploring ‘other effective’ forms of coastal and marine conservation. <https://www.iucn.org/news/protected-areas/201709/exploring-‘other-effective’-forms-coastal-and-marine-conservation>

Addressing unsustainable fishing in Fiji through improvements to LMMA management



Solution provider: Alicia Srinivas, Coral Reef Alliance



Summary: Fiji is a critical site for global coral reef conservation with 10,000 square kilometers of coral reef and an astounding 42 percent of the world's coral species. Fiji's coral reefs face significant global and local threats including climate change, overfishing and water pollution. By establishing management systems that mutually benefit communities and coral reefs, our work ensures that both are more resilient to environmental change. The Namena Marine Reserve, Fiji's largest no-take Locally Managed Marine Areas (LMMA) and global dive site, forms part of the traditionally-owned fishing grounds of the Kubulau community. CORAL began working with this community, NGOs and private businesses to develop a sustainable management system of Namena's fisheries, while benefiting the community.



Location: Bua Province / Kubulau district, Lau Province / Oneata District, Cakaudrove Province / Savusavu District, Ra Province / Saivou and Nalawa Districts, Fiji

Organizations Involved:

- **Coral Reef Alliance**

Impacts

Improving management of Fiji's LMMAs reduces fishing pressure, curbs destruction of reef habitat. A successful voluntary dive fee system was established, generating funds to cover management costs and a scholarship program for 200+ students. Namena became Fiji's first anchor-free LMMA thanks to CORAL and partners efforts. Sharks in Namena were 2-4 times more plentiful within the reserve than outside it. Our work in Kubulau represents a replicable and scalable model for building an effective local management system with financial means and staff capacity to achieve independence. The Kubulau community has moved towards autonomous management, our work has expanded to three new sites across Fiji, where lessons learned and best practices are applied to build durable management systems providing ecological and socioeconomic benefits.



Building blocks

1

Participatory planning process

A Community Educators Network was established with facilitators training and associated tools. This fostered an inclusive, on-going, community-led dialogue on resource management issues, enhancing awareness and engagement for more effective management planning, compliance and enforcement processes.



2

Research and data collection

The most ecologically important habitats to place MPAs were determined, which is a key to a successful network of protected areas. Working with the community and sharing findings broadly helped familiarize people with the importance of protecting their fish stock and coral reefs for the future.

3

Development of management plan

The ridge to reef implementation plan was outlined with roles and responsibilities clearly stated. The planning process was informed by scientific and socioeconomic research as well as local and traditional ecological knowledge.

4

Establish institutional capacity

Trainings, workshops, meetings, and providing support when necessary are all part of the capacity development process. The Resource Management Committee promotes sustainable management of natural resources in the district and reports directly to the hierarchy council of chiefs, who endorse decisions related to resource management.

5

Solidify sustainable financing for management

Ongoing management incurs expenses, there are opportunity costs associated with a community's decision to restrict their access to a resource. A sustainable funding source is crucial to cover management costs and to provide community benefits that can be experienced broadly.

Kuruwitu Conservation and Welfare Association (KCWA)



Solution provider: Des Bowden, Kuruwitu Conservation and Welfare Association

Summary:

KCWA was set up in 2003 by members of the community who were concerned about the degradation of their seas. Overfishing and effects of climate change needed to be addressed before the marine ecosystem was damaged beyond repair. Fishers and concerned residents who could remember how healthy and productive the sea had been decades ago felt it necessary to take action before it was too late. In 2005 they took the unprecedented step of setting aside a 30 hectare Marine Protected Area (MPA). This was the first coral based Locally Managed Marine Area (LMMA) in Kenya. By now, the ecosystem has made a remarkable recovery. The area has become a fish breeding ground, and alternative income generating enterprises have been introduced such as tourism, furniture and agriculture. Kuruwitu is a model for sustainable marine conservation. The KCWA share their knowledge with other local and regional coastal communities..



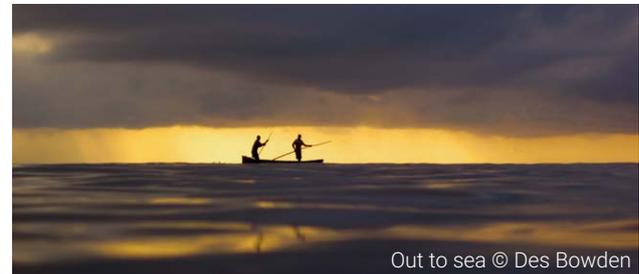
Location: Kilifi, Coast Province, Kenya

Organizations Involved:



Impacts

The development of sustainable non-fishing based initiatives has taken pressure off the fishing grounds. Fish stocks have improved dramatically within the LMMA and an independent report shows a huge increase in fish biomass and other biodiversity. This has increased fish catches in the neighbouring fishing grounds improving livelihoods. Turtles and nests in the area are protected through a community compensation scheme. Communities from along the coast and from other neighbouring countries visit Kuruwitu to see our living classroom. At least 20 other similar projects have been started by other coastal communities inspired by KCWA. KCWA demonstrated the importance of community involvement in natural resource management plans; a principle that has influenced a change of policy away from the state to the local communities. Kuruwitu has been chosen to pilot a co-management initiative working with various stakeholders covering an area of approximately 100 square kilometers. This is one of the first collaborative management schemes of its kind on the Kenyan coast and will set a precedent.



Building blocks

1

Marine protected area (MPA)

Following identification of stakeholders, awareness raising, and an exchange visit to Tanzania, it was agreed to close a lagoon area. Following legislative changes, Kuruwitu LMMA was set up under a collaborative governance model.

2

Institutional framework, legal requirements and management

When Kuruwitu LMMA was initiated, the policy that regulates the recognition of an LMMA was not clear. With support from other stakeholders, the area was recognized under the National Environmental Management Authority (NEMA), securing fishers rights to manage their own area. A 5 year adaptive management plan, and a constitution document built on local knowledge, were drawn up.

3

Community welfare

Part of the management plan was to introduce other enterprises, to achieve self-sustainability and become independent of outside funding. A tourism business attracted visitors, created employment and took pressure off the ecosystem. This was then complemented by diverse livelihood options, such as honey and crafts making, with a portion of profits going towards community welfare needs like water, health and education.

4

Importance of conservation

Bio-mass within the area has increased by 500% since LMMA establishment, and elders report seeing species that they have not seen before in their living memory. The reef is now known as one of the best snorkelling destinations on the Kenyan coast. Biodiversity data is being recorded annually to allow for monitoring species recovery.

Kick-starting marine conservation through local fisheries management



Solution provider: Rupert Quinlan, Blue Ventures



Summary: Voluntary and temporary closures of octopus fishing grounds are used as a point of entry for community-based conservation. Closures typically cover 25% of a community's overall octopus fishing area and are in place for 2-3 months at a time. There is compelling evidence that this improves fishery yields and local incomes, thereby building support to protect natural resources through locally managed marine areas (LMMAs); areas where the management of marine resources are at least in part under community control. These LMMAs often employ marine management strategies such as bans on destructive fishing practices and community-enforced permanent no-take zones.



Location: Andavadoaka, Madagascar

Organizations Involved:

blue ventures
beyond conservation

Impacts

Octopus closures can improve catches and income, with landings from closed fishing sites increasing by 700% in the month following the lifting of a closure, boosting the catch per fisher per day by 90% over the same period. 1 dollars' worth of octopus left in the closed fishing site grows to \$1.81 by the end of a closure. In Madagascar, the success of early closures has led to communities following suit, with 270 closures to date. Adoption continues to grow each year in other countries in the region. The approach has been introduced to artisanal fisheries for mud crab and spiny lobster. Fishing communities across Madagascar have grouped together to establish more than 190 management associations and 70 LMMAs that ban destructive fishing practices. MIHARI, Madagascar's LMMA network, now covers over 17% of the island's seabed, and is championed at the highest levels of government. At the end of 2017, Blue Ventures' work in Madagascar is improving the lives of over 200,000 people. The imperative now is to bring this successful approach to coastal communities across the Indian Ocean.



Octopus © Blue Ventures



Woman looking for octopus © Blue Ventures

Building blocks

1

Community assessment

Preliminary diagnostics are carried out with communities to assess their perception of the state of marine resources, the need for management and their motivation to take responsibility for management. The support organisation should not pressure the community into agreeing to management measures that they are not motivated to enforce.

2

Peer-to-peer learning exchange

Fishers from target communities visit other communities already implementing temporary fishery closures or other marine management strategies. By learning directly from real fishers from similar backgrounds, target communities realise they can adapt strategies in their own contexts.

3

Collaborative closure design

Communities select a target species, an area for temporary closures. Good collaboration between villages for surveillance and benefit sharing is helpful as well as discussing the timing of closures and openings with the fishers to ensure that everyone is party to the decision.

4

Collaborative regulation setting

The rules and regulations of the closure are decided upon in a village meeting setting, encouraging participation of as many as possible to ensure a high level of community ownership and support. Once the community is satisfied with the rules and regulations, local laws should be discussed openly and agreed upon.

5

Community-based opening of closures

All closures in an area need to open the same day, opening day procedures are established in advance with the participation of all concerned villages and coordinated with buyers. They need to be well communicated, so everyone understands the rules and it is possible to enforce a fine on somebody disrespecting the procedures.

Community-initiated Trao Reef Locally Managed Marine Area



Solution provider: Minh Hoang, Centre for Marinelife Conservation and Community Development (MCD)



Summary: The bottom-up participatory and adaptive Locally Managed Marine Area of Trao reef in Van Hung, Vietnam's Khanh Hoa province, addresses environmental degradation, resource depletion, weakened management of coral reefs, and climate change adaptation for local fisherfolks. Based on the 2001 community request, the project improved local ownership and management capacities as well as fish stocks.



Location: Trao Reef, Van Hung, Khanh Hoa, Vietnam

Organizations Involved:

- **Van Ninh district's People's Committee in Khanh Hoa province**



Impacts

Coral cover and reef fish density significantly increased, but important commercial fish species remained absent. Awareness and knowledge of the community on conservation regulations increased. The locally managed marine area (LMMMA) favored regular exchange between community members and the establishment of new social groups such as the core and the communication teams. Most are willing to maintain the marine reserve even without financial and technical support from MCD. However, the recovery effect increased violations by local people and outsiders making the core group's enforcement efforts difficult.



MPA watch station at Trao Reef © MCD



Raising awareness in Van Hung with a 3D model © MCD

Building blocks

1

Participatory needs assessment

Stakeholder consultation on locally managed marine area zoning and management operations are conducted, the results are displayed using a 3D model. Capacity building for community empowerment is an important precondition to successful LMMA planning and establishment.

2

Participative management

Ownership of the LMMA is transferred to local governance and all outputs are handed over to local authority while establishing the legal status of local stakeholders in the co-management structure. The perception of local communities as owners ensures the inclusion of native knowledge.

3

Ecological restoration

Establishing a no-take reef zone and develop the enforcement of LMMA regulations, providing the required training for execution of coral transplantation for reef restoration. Regular monitoring investigations to monitor the resource recovery can be conducted.

4

Fine-tuning site management

Legalize LMMA at district and provincial levels and implement an initial 2-year management plan to be regularly revised. Regular monitoring and reporting includes annual meetings of all members involved in co-management, which creates networks at national and regional levels.

Participatory Marine Protected Area Management



Solution provider: Bruno Monteferri, Conservamos por Naturaleza



Summary: The local fishermen of Marcona (Ica, Peru), who benefit from the marine resources of San Fernando Cove (Ensenada de San Fernando), were engaged in participatory processes to create and categorize a National Reserve. The fishermen are active partners in current management through the Management Committee of the National Reserve of San Fernando.



Location: San Fernando Cove, Marcona, Ica, Peru

Organizations Involved:



Impacts

Traditional fishery rights are respected to avoid the tragedy of the commons. When the Reserved Zone of San Fernando was created, exploitation of marine macroalgae increased. In the process of classifying the Reserved Zone as a National Reserve, local fishermen generated revenue from resource collection. This led to assignment of resource use rights, ensured that fishermen contribute to control and surveillance. Co-management helped slow migration from the highland in search of economic benefits from macroalgae use. The creation of a Management Committee, bringing together different associations of fishermen and stakeholders, allows for different perspectives in management dialogues and reduces conflicts. This creates a formal communication channel regarding the MPA and helps with zoning permitted and not permitted uses in the MPA.



Macroalgae being processed at the plant in Nazca before being sent to the alginate industry. The main demand comes from Asian markets and Chile.
© Bruno Montefferri, Conservamos.org



San Fernando is famous for its shore bird diversity
© Bruno Montefferri, Conservamos.org



Scenery of San Fernando National Reserve
© Bruno Montefferri, Conservamos.org



Sea lions surfing in San Fernando Natural Reserve
© Bruno Montefferri, Conservamos.org

Building blocks

1

Dialogue between fishermen groups and MPA officials

Local participation, dialogue and scientific data have to be considered to decide the future management scheme of the protected area. Agreements should be recorded, consistency of the different actors' positions documented. A General Assembly open to the public generates a sense of openness and disseminates general information.

2

Management committee

Interested local stakeholders are invited, members are registered and a council with a president are elected by the General Assembly. The management committee becomes a space for dialogue, facilitates support to the protected area management authority. Hence, decisions are based on formal processes and communication between the government authorities and locals is fluid.

3

Legal resource use rights

Legal resource rights were assigned to local management groups to carry out sustainable use activities if the groups commit to providing support in surveillance and enforcement. If allocated rights to use a specific resource, the locals can be a vital ally.

Community-based approaches for restoring biodiversity in coastal parks



Solution provider: Shane Orchard, IUCN WCPA



Summary: The restoration and protection of biodiversity in coastal parks to address dune degradation can provide solutions to other issues. In New Zealand, these include protection against coastal hazards, providing culturally important plant fiber resources, and improving the natural character and amenity values of the coastline. The key to securing the best range of benefits is a place-based and community centred approach that first identifies how parks management can assist local communities.



Location: Ōtautahi / Christchurch, New Zealand, Oceania region

Organizations involved:

- **Sumner Coastcare Project**
- **Christchurch City Council**
- **Sumner Environment Group**
- **Dune Restoration Trust of New Zealand**
- **Environment Canterbury**
- **Sumner Community Residents Association**



Impacts

Monitoring has shown that restoration techniques are effective in re-establishing coastal dunes in New Zealand. Increased abundance and cover of indigenous dune plant species and the persistence of dune landforms are some of the measures of success. At the species level there are several threatened and at-risk species reliant on dunes. At the ecosystem level both 'active' and 'stabilised' sand dune systems are priorities for protection due to historical declines. Another feature of many New Zealand dune restoration projects has been a community-based approach. At the management level the focus on community involvement has been facilitated by initiatives such as 'Coastcare' projects that provide opportunities for public participation. Positive effects of this approach include increasing the awareness and understanding of dune conservation needs, and direct gains for management through volunteer contributions to restoration work.



Building blocks

1

Community based approach

Encouraging a sense of ownership within the local and wider community can be achieved through awareness-raising with the objective of socialising the vision for the coastal park. Effective strategies need to provide participation opportunities to suit different groups and address the sustainability of key volunteer inputs.

2

Research on the effectiveness of restoration methods

Research into the effectiveness of restoration methods can assist community-led projects in both the design and implementation of initiatives. Working off a sound knowledge base is especially critical for community-based projects where voluntary inputs are high. This not only improves the likelihood of success from a restoration ecology stand-point but also improves the degree of confidence among participants in what they are trying to do.

3

Monitoring of outcomes

Monitoring is primarily used to help avoid repeated mistakes and to enable an adaptive approach to management. This is especially important where local conditions of the site may not have been extensively researched. Trial and error can be a practical way to design and manage a project in these situations and regular monitoring is particularly useful to identify undesirable trends sooner rather than later. It also helps gauge the level of success against longer term objectives. This applies to both biophysical and human dimensions of the project and can provide invaluable assistance for planning.

Gender Dimensions of Community-Based Management of Marine Protected Areas (MPAs) in Siquijor, Philippines



Solution provider: Barbara Clabots, University of Washington



Summary: Through interviews and focus group discussions with women and men in communities, this solution identified gender dimensions of MPA management in the villages of Maite, Binoongan, and Caticugan in Siquijor, Philippines. This helped to identify opportunities for gender mainstreaming in MPAs; inform organizations and agencies involved in coastal area funding and management of best practices, and empower women and recognize them for their important roles in MPA management.



Location: Siquijor, Central Visayas, Philippines

Organizations Involved:

- **University of Washington**
- **Coastal Conservation and Education Foundation**

Impacts

The interviews revealed opportunities in MPA management in the Philippines that provide several insights for MPA management policies to be more gender-responsive. The success of MPA management is dependent on community cooperation, male-dominated management obscures key women roles. Increasing women's empowerment should be accompanied with social acceptance of changing gender roles, since women can suffer from an initial increase in domestic violence. Mechanisms to ensure males do not usurp benefits of female-run MPAs are lacking and local fishermen benefit from increased catch without participating in MPA management. The impact of MPAs on women is often not measured, so effective implementation in MPA management should be promoted. MPA management objectives are not explicitly related to women's needs and limit the natural resources available.



Gender mainstreaming in Philippines MPA management © Barbara Clabots



Gender mainstreaming in Philippines MPA management © Barbara Clabots



Gender mainstreaming in Philippines MPA management © Barbara Clabots



Gender mainstreaming in Philippines MPA management © Barbara Clabots

Building blocks

1

Equitable inclusion of women in marine protected area management

People of all genders should be equally included in capacity building and management opportunities for MPAs to fully capture community needs and priorities and foster widespread community support. Women are likely to support management if a funding plan and evaluation framework includes gender equality.



Gender mainstreaming in Philippines MPA management © Barbara Clabots

2

Non-consumptive income opportunities from a marine protected area

Communities accepting responsibility for monitoring an MPA receive income from tourism dollars, charging a fee to snorkel, take photos. Providing income opportunities outside of overfishing and unsustainable marine resource use ensures that communities will maintain their livelihoods while conserving the ecosystem.

Pioneering climate change adapted MPA management in Madagascar



Solution provider: Harisoa Rakotondrazafy, WWF Madagascar Country Office



Summary: Threats posed by climate change on ecosystems and biodiversity in protected areas and people are increasing. PAs can be an effective tool to strengthen their resilience. This solution is therefore building resilient protected areas in Nosy Hara that can help to secure long-term use of ecosystem services by local communities in a changing climate, while improving protection of the area's rich marine life by considering climate change into its management.



Location: Nosy Hara, Madagascar

Organizations Involved:



Impacts

Improvement of MPA manager skills and understanding of climate change issues and their links with 'business as usual' work. Better knowledge of the status of conservation targets (species and ecosystems) and their level of vulnerability and resilience. Increased awareness of climate change and the relevance of marine protected areas in adaptation among practitioners and local communities; both in the project area and beyond, through the experiences and results of this initiative.



Community meeting in Nosy Hara © WWF



WWF pirogue in Nosy Hara © WWF

Building blocks

1

Climate change capacity building for MPA managers

The aim is to update management tools and strategies by enhancing knowledge on climate change key concepts and potential impacts for coastal and marine areas. Initiatives should start with capacity building to ensure a common understanding of concepts by MPA managers.

2

Climate Witness Community Toolkit

The documentation of local climate change impacts and a discussion allows for the identification of key problems with the main causes and adaptation options. The final outcome is a community action plan describing priority adaptation options.

3

Vulnerability assessment to climate change

Hotspots of climate change vulnerability and adaptation options that help maintain and/or strengthen the site's resilience can be identified. This allows an understanding of the status of biological and social targets with regards to climate change targets and the results guide the management plan.

4

Identification and implementation of adaptation options

Opportunities that enable the implementation of an adaptation option, required cost of its implementation, benefits of implementation and the risks at different levels are all criteria that can be used to prioritize a relevant adaptation option.

5

Review of management plan to integrate climate change issues

A revision can update conservation target status, identify some to be added, review and revise threats and adjust the MPA strategy and monitoring protocols. Having these climate-smart management tools will ensure a resilient MPA as well as long-term goods and services for local communities.

Community-based Conservation at Scale



Solution provider: Laure Katz, Conservation International



Summary: The Bird's Head Seascape (BHS) addresses habitat destruction from overfishing and resource exploitation in West Papua, Indonesia, through a large-scale ecologically-connected and community-driven Marine Protected Area (MPA) network to preserve biodiversity and regenerate local fisheries. Ultimately, the goal is for local Papuan communities to have enhanced food security, livelihoods, cultural heritage and rights.



Location: Bird's Head Seascape, West Papua, Indonesia

Organizations Involved:



Impacts

The BHS includes Indonesia's first effectively managed MPA network, its first legally established co-management system, and has the highest MPA management effectiveness scores in the country with an average score of 73%. MPA patrol teams were able to reduce destructive fishing practices to less than 1% of fishers in Raja Ampat MPAs. Illegal overfishing from outside poachers was reduced by over 90%. The government banned both mining and shark and ray fishing, and as a result, Raja Ampat has become a world-class tourism destination with an average annual tourism growth rate of 30%. Ecosystem health and local fisheries have started to recover. In Raja Ampat the average increase in live coral cover across MPAs has been ~12% since MPA establishment. The average increase in fish biomass across MPAs is ~114%. Local fishers are now catching more fish with the same level of effort. Evidence on the ground shows significant results, with communities catching more fish, revitalizing traditional practices, and finding new livelihood opportunities in the growing tourism sector.



Building blocks

1

Ecosystem-based management science program

The interdisciplinary program generated information that guided the development of the strategy. Understanding the community dynamics and gaining information on areas where protection reduces existing community conflicts is incredibly helpful.

2

Social and political support and partnership

A coalition of partners across the seascape was created engaging coastal communities through communication and education strategies. Community conservation officers for each village were trained and equipped with environmental training.

3

Development of ecologically connected co-managed MPA network

A management system empowering local communities to lead the planning, management and program implementation of the BHS MPA network is developing. Conservation process can be used as a means to strengthen the rights and culture of local communities.

4

Adequate capacity and co-management institutions

A comprehensive MPA Management Capacity Building Program was designed to turn local village leaders, MPA practitioners and government officials into effective MPA managers. Government commitment is key to achieve the necessary framework.

5

Private sector engagement

The tourism industry was developed to motivate the government to protect natural capital from over-exploitation and prioritize sustainable development pathways.

6

Sustainable financing strategy

The transition from an international NGO-driven and donor-funded initiative to one that is effectively managed entirely by local institutions and sustainably financed will be achieved through diversified revenue sources. A comprehensive cost model and business plan was developed to project revenues, costs and gaps.

Communities leading sustainable fisheries management



Solution provider: David Chacón, COOPE Tárcoles R.L

Summary:

Costa Rica's coastal population is culturally and economically closely tied to the seashore and strongly dependent on artisanal fisheries. However, blocked access to marine resources, degraded and polluted habitats and declining fish stocks threaten livelihoods and increase local poverty. The artisanal fishermen's cooperative CoopeTárcoles R.L, encouraged the community to use local marine resources sustainably, thus guaranteeing their economic future and cultural way of life. They led a dialogue with the semi-industrial fleet to reach agreements on the use of the marine territory. They have promoted a collaborative governance model for the management of the country's marine territory where fishers and government work together towards responsible fishing and improvement of the quality of life of the communities.



Location: Tárcoles, Gulf of Nicoya, Provinz Puntarenas, Costa Rica

Organizations Involved:



Impacts

- Tárcoles has been a flagship project in the creation of a National Network of Marine Responsible Fishing Areas
- Environmental management plan for better fish processing practices and clean local beach shores
- Institutionalized sustainable fishing protects economic future of the community
- Cooperative benefits workers in related occupations - often women and youth
- Collective action provides an equitable and just distribution of benefits
- Development of a local enterprise that promotes guided visits to learn about local fishing practices
- Expanding ecotourism provides alternative income sources
- Proposal for the recognition of a community governance model to ensure the collaborative management of MPAs by communities and government
- Establishment of a community-based Marine Area of Responsible Artisanal Fishing of Tárcoles (MARAFT)
- Uniting artisanal fishers for political purposes through visits to the localities in Tárcoles



Small scale fishing in Tárcoles
© Olman Viquez, Coope SoliDar



Women are preparing the fishing lines
© Olman Viquez, Coope SoliDar

Building blocks

1

Community-managed marine area

In 2009, CoopeTárcoles R.L requested the Costa Rican government to recognize a Marine Responsible Fishing Area (MRFA) in their fishing territory, which was approved in 2011. This provided a base for collaborative management, conserving marine biodiversity and protecting cultural identity through dialogue and responsible fishing agreements, and for recognizing fishers' rights.

2

Negotiation and legal recognition

A participative process with artisanal fishers and government authorities was initiated for the development of the fishing management plan. With prior informed consent, an agreement was reached for shrimp semi-industrial trawlers to move out of the area 5 nautical miles from the coast to support sustainable shrimp populations.

3

Participatory local governance

A commission, composed of members of the fishing cooperative and governmental authorities, is responsible for further management of the area, based on the fishing management plan, which is strongly building on traditional knowledge and a rights-based approach to conservation.

4

Fishery database

Each fisher records their daily fish catches, methods and site locations and feeds the information into a database. This information aids in monitoring the abundance and diversity of key species and serves as a management tool. Data are analysed by technicians/scientists and the results are discussed with fishermen.

5

Responsible fishing code of conduct

The fishers adopt voluntary standards for responsible fishing based on FAO recommendations. The Local Code of Conduct for Responsible Fisheries helps to ensure the conservation and sustainable use of coastal and marine resources through the MRFA.

6

Sustainable ecotourism

Cultural tourism provides a source of income for the local community, guided tours promote community traditions, the art of fishing and wealth of natural resources. However, recreational fishing needs to be well managed to not become a new threat for the integrity of the marine area.

Ensuring marine protection through Locally Managed Marine Area at Vamizi island in Mozambique



Solution provider: Isabel Marques da Silva, UniLurio



Summary:

A unique partnership between a lodge, a university and the local communities resulted in more than 12 years of protection of natural resources through the Locally Managed Marine Area (LMMA) of Vamizi Island.

Supporting medical aid and capacity building for teachers of a local school were the “exchange currency” for starting an LMMA on the island. After initial mistrust, fishermen were persuaded to cooperate: 6 years later, fisheries around Vamizi improved and became significantly better than those in surrounding waters. Vamizi Island is now famous for its LMMA, a place where taking turtles, mosquito net fishing and illegal scuba diving are banned. The LMMA has increased the fisher’s catch rates and can count on the Fisheries Council to control illegal fishing around it.



Location: Vamizi island, Palma, North Mozambique

Organizations Involved:



Impacts

Overall Vamizi LMMA is a leading example of a successful cooperation between tourism, university and communities, but also an LMMA that is changing the lives of surrounding communities for the better: The clinic and school allowed the community to go to a consultation without leaving the island and their children could study without leaving their home. Grants for girls’ education are supporting the best female students and changing mentalities about girls’ education or at least making them discuss it. These first steps had a substantial impact on the village and made people more willing to accept tourism and the LMMA.

Meanwhile, the Community Fishing Council (CCP) developed artisanal buoys to demarcate the LMMA, made of local materials to avoid theft. Now CCPs from the mainland come to see how they are built and are reproducing the system. Other lodges are following in the steps of the Vamizi experience, supporting not only the patrols of the LMMAs, but also providing better education and health in remote locations. The number of species and individual fishes found there has increased, and so has the size and quantity of fish caught locally.



Building blocks

1

Developing basic education and health facilities

In 2006, health care was a major issue for the population, as Vamizi island was more than 2 days away from the provincial hospital, and there was no school on the island. The tourism company raised funds for constructing a school, a health center was built, and the LMMA patrol boat used as an ambulance, providing the foundation for the community' support to the LMMA.

2

Sustainable financing for LMMA operations through tourism fee

The more famous the Vamizi LMMA was, the more pressure was increasing from people accessing the area, making it essential to uphold patrols and maintain the boat. The fee collected from the tourist users of the LMMA allows to do so, and provides an additional reward to those CCP members conducting the patrols.

3

Locally-based organization providing sustainable technical support

The active engagement of UniLúrio in all the phases of the process was essential to keep the community involved, considering the local people don't know reading or writing, and few know how to speak Portuguese. UniLúrio is the one keeping records and publishing the most important information related to the LMMA.

4

Conducting ecological monitoring

Monitoring was first put in place by ZSL, WWF and IUCN, with UniLúrio now leading it. "Against facts, there are no arguments" is a Portuguese saying, but better than facts are when people can see in fisheries and in diving the result of their efforts. Certainly seeing more and bigger fish coming out in their nets is the best argument for LMMA support.



Lauru Ridges to Reefs Protected Area Network (Lauru PAN)



Solution provider: Provider: Jimmy Kereseka, Lauru Land Conference of Tribal Community (LLCTA)



Summary: The Lauru PAN in Choiseul Province, Solomon Islands, is the first locally managed marine area (LMMA) network in Melanesia. It was established in a community-led process and based on a master conservation plan that is continuously updated. Good governance and conservation impacts are monitored. The partnership between TNC, LLCTC and Choiseul provincial government results in better protection of marine resources and legal security over access rights.



Location: Choiseul Province, Lauru, Solomon Islands

Organizations Involved:



Impacts

Local communities as drivers have full ownership in the establishment of the Lauru Ridges to Reefs Protected Area Network. LLCTC is covered by requests further to the 15 sites already set up. Conservation priorities improve stakeholders bargaining power when negotiating with mining companies and the national government about future mining operations. Mapping results in better knowledge of natural, but also cultural resources. Stocks of commercial species, e.g. trochus snails, have noticeably recovered. Alternative livelihood options (ecotourism), have generated revenues.



Building blocks

1

Conservation plan built on local and scientific knowledge

MPA planning software used by community and governmental stakeholders allows for cost effective networks of protected areas. This settles conflicts over land ownership and engages community groups as well as guiding the decision-making process.

2

Consultative establishment of protected area sites

A LLCTC's environmental officer decides whether a site should be included into the conservation plan through interactions with the community. A consistent management plan ensures accountable oversight and clear representation of resource regulations.

3

Continued collaboration between all stakeholders

An LLCTC environmental officer, the community committee and the contact point in the community establish monthly visits. Long term engagement with communities is essential to ensure long-term sustainability and commitment.

4

Coordinated monitoring of protected areas

Interested community members are trained in monitoring using standardized techniques. An active role of the management committee should be supported to establish self-sustaining management without external assistance.

5

Overseeing implementation of the network

A framework is implemented by an environmental and conservation committee, which meets twice a year. New requests to LLCTC are submitted following an exchange between communities.

6

Support in developing alternative livelihoods

Developing alternative incomes through integration of ecotourism and conservation helps offset adverse effects of resource use limitations. Livelihoods can be supported in tandem with biodiversity conservation.

MPAs as part of solution towards a resilient eco-city



Solution provider: Chu Manh Trinh, Cham Islands Marine Protected Area Authority



Summary: The Cham Islands MPA, as well as the Biosphere Reserve, are probably the most significant programs towards resilience-building in Hoi An. Hoi An officially declared its vision to become an eco-city by 2030. The MPA allows Hoi An to regulate fishing activities and pollution. The MPA has also supported the development of eco-tourism models to diversify local income sources, proving that environmental protection can also be compatible with economic growth.



Location: Cham Islands, Hoi An, Vietnam

Organizations Involved:



Impacts

The MPA has supported opportunities to build and develop the community-based ecotourism home stay program. From 2002 to 2013, the number of tourists to the Cham Islands has increased from 1,000 tourists in 2002 to 150,000 tourists in 2013. The community-based land crab management program has demonstrated the power of thoughtful and sustained community participation in environmental decision-making. Prior to the work of the MPA, the land crab population has degraded gradually. 75% of the land crab population is now conserved, and the income of local participants is four times larger.



Aerial view of Cham Islands and Hoi An. © Bui Kien Quoc



Marking of a land crab. © Chu Manh Trinh

Building blocks

1

Conducting formal risk assessment

Scientific information and community knowledge are necessary input data to produce a complete risk assessment. Risk scenarios and action plans can be developed using surveys from biodiversity, environmental quality, fishery and social economic studies.

2

Designing and zoning an MPA for climate adaptation

The management of the zones is undertaken according to the needs of the ecosystem and the local community. The zoning allows for coastal and river bank erosion prevention measures, such as mangrove reforestation and sea walls construction.

3

Facilitating a co-management dialogue

Shared responsibilities and interests of the state, community and stakeholders have been identified. A long-term participation and buy-in from local stakeholders is required and preservation policies are successful when people have received benefit in return.

4

Establishing local management infrastructure

Local management infrastructure supports the effective implementation of the management plan. A program office acts as a coordinating centre for monitoring, development of management regulations and carries out public awareness raising.

5

Developing alternative livelihoods

A community-based ecotourism home stay program promotes socio-economic development and provides local income. A common guideline supports a land crab group, which issues and approves regulations on crab use.

6

Enabling stakeholder-driver patrolling and enforcement

Local communities are encouraged to participate in patrolling and providing information on violations. This gives the locals a direct stake in the natural resource protection.

Integrating community health services with local marine management efforts



Solution provider: Laura Robson, Blue Ventures

Summary: This solution integrates community health services with marine conservation and coastal livelihood initiatives. This holistic model allows people to choose freely the number and timing of their births, while equipping them with the skills and opportunities they need to manage their resources sustainably. It is often referred to as the Population-Health-Environment (PHE) approach because of the way it reflects the connections between people, their health and the environment.



Location: The Velondriake locally managed marine area, Andavadoaka, southwest Madagascar

Organizations Involved:



Impacts

- Contraception use among women of reproductive age in Velondriake LMMA increased more than fivefold from 10% in 2007 to 55% in 2013.
- General fertility rate in Velondriake LMMA declined by more than 40% over the same period.
- More than 1,000 unintended pregnancies are estimated to have been averted among a population of 15,000 to date.
- Couples are empowered to plan and better provide for their families; improving food security, allowing women to play a more active role in fisheries management, and boosting the sustainability of local conservation efforts.
- Women and youth now make up 85% of the Velondriake LMMA's management structure.
- Coastal communities are able to live more healthily and sustainably with their marine environment, building social and ecological resilience to climate change.
- Blue Ventures is assisting other organisations to adopt this approach by supporting the development of a national PHE network in Madagascar, bringing together health and conservation NGOs, donors and policy makers to facilitate cross-sector partnerships.



Building blocks

1

Family planning and community health service delivery

Networks of local women have been trained and supported to offer family planning information and short-term contraceptives in their villages. Long-acting reversible contraceptives are also offered on a regular basis and the community-based distributors of contraceptives are trained to provide antenatal and postnatal education.



2

Temporary octopus fishery closures

The short-term octopus fishery closure model involved periodic closures of a portion of a village's octopus gleaning grounds at any communally agreed time, up to a quarter of a community's fishing area may be closed for three months. This increases octopus landings and improves fisher incomes.

3

Locally managed marine areas

Zones are managed by coastal communities to help protect fisheries and safeguard biodiversity. Through customary laws recognized by the government, partner communities have designed effective rules enforced locally to ban destructive fishing practices, protect endangered species and designate priority marine areas for protection.

4

Community-based aquaculture

Providing partner community members with new sources of income, allowing improved access to food and education, while alleviating pressure on fisheries and marine biodiversity. Isolated coastal communities are connected with lucrative international markets for seaweed and sea cucumbers while nurturing small business development.

Building positive links between the Ostional community and the conservation of Olive ridley sea turtles



Solution provider: Norma Rodríguez, SISTEMA NACIONAL DE AREAS DE CONSERVACION

Summary: Ostional Wildlife Refuge is the second largest beach nesting site of Olive ridley sea turtles (*Lepidochelys olivacea*) in the world. With the simultaneous arrival of hundreds of turtles to the beach of Ostional, high mortality of eggs was observed due to over-excavation, illegal poaching of eggs and natural causes. This promoted the creation of the Refuge and the design of a project where government institutions and the community jointly implemented actions to improve the conditions of habitat protection and a regulated use of turtle eggs is permitted.



Location: National Wildlife Refuge Ostional, Guanacaste Province, Costa Rica

Organizations Involved:



Impacts

Under new management practices the stakeholders made significant progress in all areas of management planning. Recognition of the community of Ostional for environmental protection and better protection of nesting turtles is increased. Advances in research include various topics related to the state of the population and the development of a methodology to accurately count transects of turtle population “arrivals”, which is now used worldwide. The project provides social development benefits: 110 families are actively involved.

Benefits include:

- Scholarships to students
- Equitable family income distribution
- Support for older adults
- Infrastructure development (roads, bridges, school, health centre)
- Conservation impact: approximately 15 million turtles hatch each year



Building blocks

1

Commission for the management and protection of sea turtles

A legal framework and a commission of co-management is established by consensus of interested parties. The commission collaborates on designing a 5-year management plan for the conservation of the turtles, and sustainable use of turtle eggs.

2

Distribution of profit to families

The families of the Ostional community are the main partners responsible for habitat maintenance, collecting eggs according to the management plan, as well as conservation and packaging of eggs. Of the sales, 70% are distributed to members and 30% are reserved for local development.



Ensuring fish and the lives of those who depend on them



Solution provider: Jovenal Edquilag, Rare



Summary: Pilar Municipal Marine Park (PMMP) is on Ponson Island, Philippines between Lower Poblacion and Villahermosa villages. Located in what is considered a priority conservation area for reef fishes, the region was previously threatened by compressor fishing and illegal intrusion of commercial fishing boats. To address these threats, PMMP established an innovative multi-stakeholder management scheme with a no-take zone, driving people and nature impacts.



Location: Pilar Municipal Marine Park (PMMP) Ponson Island, Philippines

Organizations Involved:



Impacts

Species conservation: Significant increase in the number of fish per 500m² within the sanctuary's no-take zone: 372 in May 2005 to 640 in May 2009. Fish biomass within the zone also grew from 1.33 ton³/km² in 2005 to almost four times as much in 2009. The zone also protects the surrounding mangroves, which provide habitat to fruit bats, reptiles and migratory birds.

Livelihoods: Previously, fish catch averaged 2.6 kgs/fisher/day and 18% of school-aged children were malnourished. Six years later, fish catch has increased to 5.5 kgs/fisher/day and the number of malnourished school-aged children decreased to 10%.

Building blocks

1

Transparent co-management

The management team is comprised of the Municipal Mayor, the Management Board, park officers and members of the working committees. The municipal and the two village government units make up the Management Board. The Management Board members hold quarterly meetings and a general assembly of all Management Team members is conducted annually.



Pilar Municipal Marine Park (PMMP) © (PMMP)

2

Fair enforcement

If a violator from one village is apprehended, the case is resolved by members from a different village to reduce patronage politics. Hands-on leadership, team-building strategies and technical support harmonize the different interests of the multi-stakeholder organizational set-up. Regular meeting of the enforcement committees enables the monitoring of issues.

3

Participatory monitoring of threats

The Monitoring and Evaluation Plan is a guide in tracking and measuring the status of the marine habitat and its organisms, the threats and management efforts in the marine park. A logbook reflects guarding, patrolling and surveillance on site. The competences and skills of the members are improved through trainings, coaching and mentoring.

4

Participatory governance

The different ideas and opinions of involved individuals and groups are taken into consideration when setting up the management committee, drafting the management plan and coming up with solutions to arising problems. This results in more cooperation and partnership as well as a better articulation of the management plan.

5

Behaviour change through social marketing

The goal of the campaign is to catalyse the adoption of the desired behaviour among local fishers and increase the support and peer pressure of following fishing laws among the wider community. Pre-testing creative concepts with the target audience themselves reveals valuable insight into the positioning and details of the campaign.

Community participation in PA management provides development benefits



Solution provider: Christophe Du Castel, Agence Francaise de Développement



Summary: The Parc Marin Mohéli, Comoros, was established in 2001 through a negotiated process agreed by the ten main village centers around the area. However, during political instability, external support dried up in 2005, and pressures on coastal ecosystem resources vital to the local economy have increased. The solution has been to revive the village dynamics around the protection of the park, and since 2014 to develop income generating activities for both local communities and the park's management.



Location: The Parc Marin Mohéli, Comoros

Organizations Involved:



Impacts

Re-addressing the institutional and governance framework for the Mohéli Marine Park has resulted in a more productive arrangement between local villages and protection authorities. Dialogue concerning impacts on local resources and livelihoods has moved from one of costs and claims to one of action and benefits. - Trade-offs between protection and exploitation have become possible, and resulted in reduced impacts on marine and coastal ecosystems. New areas of 'no-take' zones have both increased 'spill-over' and recovery of key commercial species (octopus, holothurians) and provided strict biodiversity havens within the Mohéli island ecosystem. - The active participation of villages in reducing watershed and coastal erosion are perceived as beneficial for their community, not just for the protected area.



Building blocks

1

Revitalizing community engagement in park management

Ongoing and active participation of community members in implementation, with involvement and buy-in to projects developed to support management activities. Regular dialogue between protected area and village representatives provides information on the activities of the protected area; allows for presentations of results from research; and raises issues and challenges that need a management response.



2

Community action for sustainable artisanal fisheries

Establishment of a fisheries resources monitoring system, supporting diversification of fishing activities, implementing activities that maintain fishing as a livelihood activity, while combatting destructive practices, easing fishing pressure on the reef, protecting critical habitats. Establishing no-take zones in the areas of the park which have been identified as crucial for protection of fisheries resources.

3

Sustainable agriculture in watersheds and vulnerable coasts

Institutional support to producers in organizing themselves, promotion of more sustainable agricultural potential products, using more efficient technologies, developing market-gardens to supply tourist facilities. Existing markets and resource opportunities should be the first to be developed, adapted and made more sustainable.

Kawawana community heritage area: good life recovered through conservation



Solution provider: Salatou Sambou, KAWAWANA



Summary: Kawawana (“our local heritage to be preserved by us all”) is an estuarine territory where the ancient governance and management rules –renovated and agreed upon also by the municipal and regional governments – are finally again respected. With not a cent of outside support, the local fishermen govern, manage and provide much needed surveillance operations for their own Kawawana, which has dramatically recovered in quantity and quality of biodiversity (fish, dolphins, crocodiles, birds...).



Location: Mangagoulack, Casamance, Senegal

Organizations Involved:

Kawawana



Impacts

The “good life” is back in the villages: fish are available in good quality and quantity to households at an affordable price. The ingenious three zone management plan has fostered local food sovereignty (better diet and prosperity) and in part reversed the urban exodus. The practice of collective governance has consolidated local solidarity. The community has learned sophisticated methodologies and regularly monitors fishery and socio-economic results. Local interactive radio programmes allow to dialogue with all who need to know and respect the rules. Traditional anti-salt dikes were restored, allowing for the recovery of land for rice cultivation. The environment (spaces, species, ecosystems) has recovered and now better play its role as an ecosystem services provider. Local conflicts have diminished and attempts to exploit resources, which presented potential sources of conflict, were kept under control. For example, the burning of the Mangagoulack forest was avoided thanks to the influence of the initiators of the Kawawana ICCA, supported by the entire population of the 8 villages. In Senegal, 6 ICCAs are currently being set up and seeking legal recognition, following the example of Kawawana.



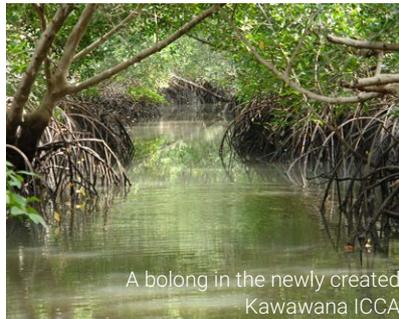
Bone of a 7-meter shark fished in the community area



Community interview to monitor the socio-economic results of Kawawana. © ICCA Consortium



Community monitoring of quantity and quality of fish catch²



A bolong in the newly created Kawawana ICCA



Building blocks

1

Community Organization

The ICCA was created by the community itself, through the association of fishermen from the rural community of Mangagoulack (APCRM).

2

Rehabilitation and strengthening of traditional rules

Assertion of community collective rights and capacity to govern (decide and implement decisions) and manage (provide surveillance, monitor) its heritage territory. Re-establishment of ancient rules.

3

Broad discussion of the community rules with the community

Strong communication efforts (exchanges, meetings, popular debates, interactive radio in local languages) throughout the process of establishing and operating Kawawana. Other community conserved areas have been created close to Kawawana and more are in progress.

4

Declaration of an Indigenous Community Conserved Area (ICCA)

The Fishermen Association was informed that following international CBD decisions and IUCN recommendations Senegal was promoting and respecting locally established “community conserved areas”. The ancient governance and management rules, renovated and agreed upon by the municipal and regional governments are respected.

5

Monitoring of the comeback of the “good life”

From the beginning of creation of the ICCA, the local community engaged in the monitoring of quality and quantity of fish catch, socio-economic change and ecosystem health.

Balancing Environment Conservation and Economic Gain Through Community-based Tourism



Solution provider: Cheryl Dugan, Philippine Locally Managed Marine Area (PhiLMMA) Network, Inc



Summary: Sugba Lagoon, a no-fishing zone, demonstrates that tourism need not be a choice between conserving the environment and earning a living: People's organizations (POs) from Caub, where the lagoon is, and from nearby areas were trained by government agencies on tourism management and guest relation services. SIKAT, a 28-year old NGO with significant experience in community-based coastal resource management, trained them on basic ecology and marine protected area management. Environmental management is now part of the mandate of the POs. The local government unit (LGU) declared the lagoon as no-fishing zone and intensified its enforcement of fisheries laws with help from POs and NGOs. It developed infrastructure and procedures, providing support and guidance. The communities are kept informed of policies and the importance of environment conservation through regular community consultations.



Location: Siargao Island, Philippines

Organizations Involved:

- **Sentro Para sa Ikaunlad ng Katutubong Agham at Teknolohiya (SIKAT)**

Impacts

The community-based social enterprise provided the communities with the opportunity to partake in the socio-economic benefits of tourism and to take ownership of their responsibility to conserve their environment. The income provided by the lagoon motivated them to strictly implement the "no fishing policy" in the lagoon.

Through capacity building activities organized by government agencies and NGOs, the people's organizations (PO) acquired skills in tourism management such as customer service and souvenir packaging, and organizational management skills such as financial management, team management and project management. The knowledge and appreciation of the communities on the importance of environmental protection and conservation increased because of their training on basic ecology and protected area management, community consultations and information campaigns.

As a result of their involvement, their training and their mandate to manage their environment, the PO members have become empowered members of their communities as well as protectors of environment.



Building blocks

1

Organized community groups and participatory approaches

The active participation of organized community groups including People's Organizations (PO) is crucial. The involved POs were registered with the Security and Exchange Commission, trained and mandated to ensure environmental management.

2

Technical support from different sectors and infrastructure support from LGU

Government, NGOs and private entities shared their expertise with the POs and provided technical support to empower them. This enabled them to manage their own organisations, practice community based management, lead tourism activities and manage the marine protected area.

3

Continuous communication and education

Through community consultations, the LGU and non-government organizations regularly update the communities on policies and reminded them of the possible impact if the lagoon is degraded. Dialogue on issues and discussions on solutions happen during these community consultations, and information materials are handed out.

4

Strict implementation of fisheries law and ordinances

The municipality of Del Carmen showed that it is serious in the implementation of fisheries law and ordinances when it organized the fish wardens and the People's Organizations (POs) in all its villages. The fish wardens, in partnership with law enforcers, are instrumental in the apprehension of illegal fishers and mangrove cutters and in significantly decreasing such illegal activities.

Micronesia Challenge: A Regional Commitment for Protected Area Management



Solution provider: Rachael Nash, Micronesia Challenge Secretariat



Summary: The Micronesia Challenge is a commitment by the five Micronesian countries and territories, and the partners of their regional support teams to preserve the natural resources that are crucial to the survival of Pacific traditions, cultures and livelihoods. The overall goal of the Challenge is to effectively conserve at least 30% of the near-shore marine resources and 20% of the terrestrial resources across Micronesia by 2020. In the Micronesia Challenge, local organizations supporting communities are joined together in a regional network to share lessons.



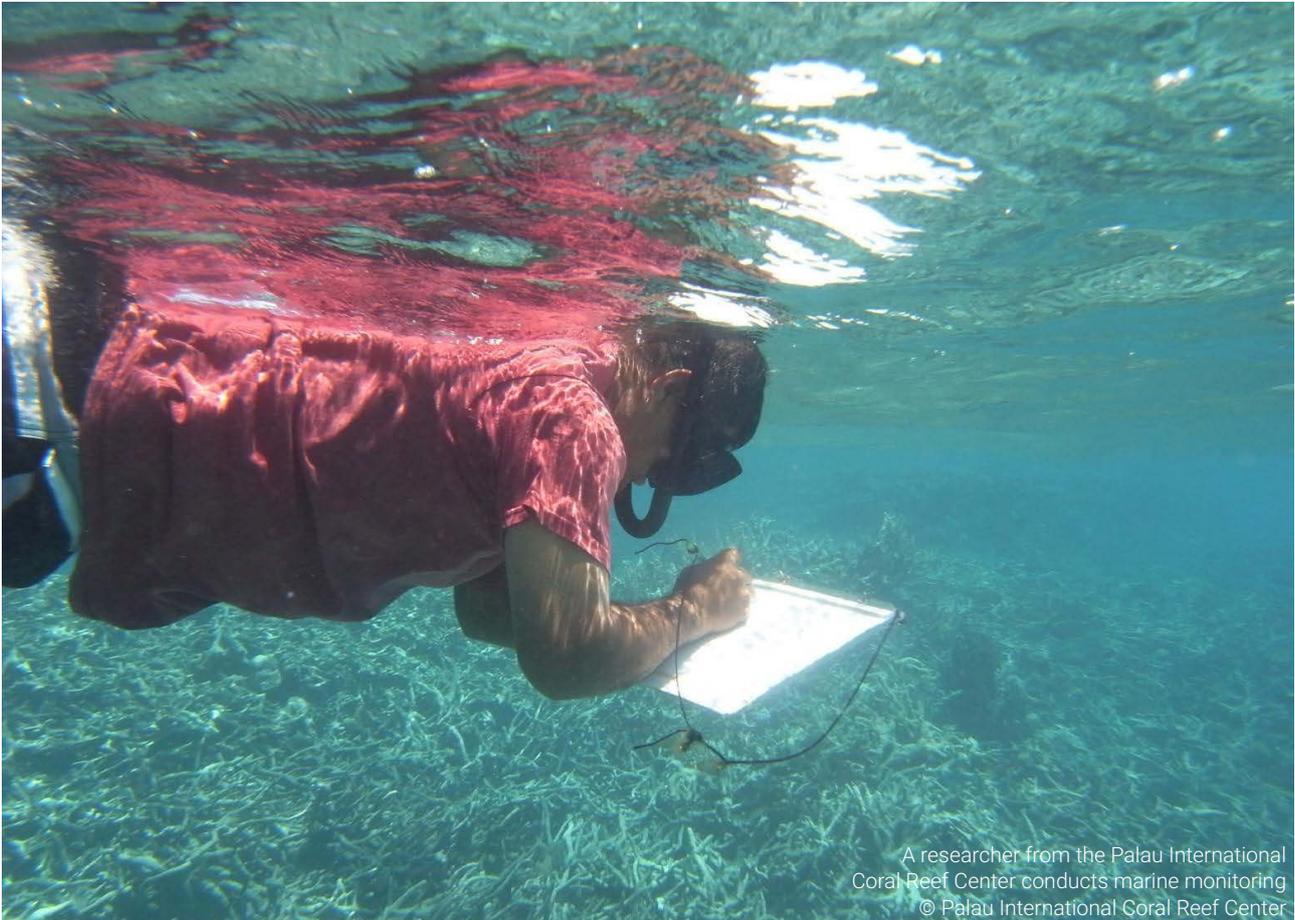
Location: Palau, FSM, Marshall Islands, Guam, Northern Mariana Islands

Organizations Involved:



Impacts

The MC helped establish 150 conservation areas. Micronesia is on track for 2020 goals: 30% of marine and 20% of terrestrial resources. The MC Measures Working Group developed the Marine Protected Area Management Effectiveness Tool. Communities use it to improve their management by keeping track of MPA effectiveness based on data from monitoring programs. Effective conservation requires financing mechanisms, such as Green Fees, tourism fees or tuna licensing fees. An endowment of \$56 million is being created to generate additional annual funds to support management activities, which has reached \$17 million as of 2015. Since 2006, the Micronesia Challenge has proven to be a successful solution. The Coral Triangle Initiative followed its lead in 2008, the Western Indian Ocean Coastal Challenge in 2012 and the Caribbean Challenge Initiative in 2013.



A researcher from the Palau International Coral Reef Center conducts marine monitoring
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Building blocks

1

High level political leadership & commitment

Bringing dedicated leaders together creates momentum for ambitious commitments forming strong partnership at local to regional level to support progress. Local implementation and international finance are catalyzed by political leaders at the highest level committing to an enthusiastic target.

2

Building strong partnerships with regional identity & glispa

Lasting partnerships sharing lessons learned are created through shared regional and cultural identity. This unites diverse stakeholders and jurisdictions.

3

Sustainable financing: PAN funds and endowments

Having structure and relationships in place prior to receiving funds is a key component to project success. Regional conservation trusts can build capacity and create a hub for regional networks and partnerships.

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