



MARINE TENURE AND SMALL-SCALE FISHERIES

LEARNING FROM THE PHILIPPINES EXPERIENCE



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Cover Photo: Family day amongst the mangroves of Bindoy, Negros Oriental, Philippines

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ACRONYMS AND ABBREVIATIONS

ADMP	Ancestral Domain Management Plan
ARMM	Autonomous Region of Muslim Mindanao
BFAR	Bureau of Fisheries and Aquatic Resources
CADC	Certificates of Ancestral Domain Claim
CADT	Certificate of Ancestral Domain Title
CBCRM	Community-Based Coastal Resource Management
CBFMA	Community-Based Forest Management Agreement
CLUP	Comprehensive Land Use Plan
CRM	Coastal Resource Management
CRMP	Coastal Resource Management Project
CDCS	Country Development Cooperation Strategy
DENR	Department of Environment and Natural Resources
DOLE	Department of Labor and Employment
EAFM	Ecosystem Approach to Fisheries Management
ECOFISH	Ecosystems Improved for Sustainable Fisheries
EO	Executive Order
FAO	Food and Agriculture Organization of the United Nations
FARMC	Fisheries and Aquatic Resources Management Council
FISH	Fisheries Improved for Sustainable Harvests
FSP	Fisheries Sector Program
GDA	Global Development Alliance
GT	Gross Tons
ICM	Integrated Coastal Management
IP	Indigenous People
IPRA	Indigenous Peoples Rights Act
IUU	Illegal, Unreported, and Unregulated
LGC	Local Government Code
LGU	Local Government Unit

LMMA	Locally Managed Marine Area
LMP	League of Municipalities of the Philippines
MAA+S	Managed Access Area plus Sanctuary Management
MAO	Municipal Agriculture Office
MKBA	Marine Key Biodiversity Area
MFARMC	Municipal Fisheries and Aquatic Management Council
MPA	Marine Protected Area
MSP	Marine Spatial Planning
MSY	Maximum Sustainable Yield
NAPC	National Anti-Poverty Commission
NCIP	National Commission on Indigenous People
NIPAS	National Integrated Protected Area System
NGO	Non-Governmental Organization
PCRA	Participatory Coastal and Fisheries Resource Assessment
PD	Presidential Decree
PEA	Political Economy Analysis
PO	People's Organization
PhiLMMA	Philippines Locally Managed Marine Area Network
RA	Republic Act
SSF Guidelines	Voluntary Guidelines for Securing Small-scale Fisheries in the Context of Food Security and Poverty Eradication
TGCC	Tenure and Global Climate Change
T/HP	Tons/Horse Power
TURF	Territorial Use Rights in Fishing
UPMSI	University of the Philippines – Marine Science Institute
UPV	University of the Philippines – Visayas
USAID	U.S. Agency for International Development

EXECUTIVE SUMMARY

Through its commitment to addressing extreme poverty, the U.S. Agency for International Development (USAID) is focused on developing a deeper understanding of the importance of small-scale fisheries and the role of marine tenure in achieving food security, inclusive economic growth, biodiversity conservation, and other priority development objectives. Small-scale fishing communities are among the poorest and most vulnerable groups in developing countries, and are highly dependent on wild fish stocks for food and livelihoods. These communities are largely landless, residing in coastal areas that are vulnerable to threats, especially those related to climate change. Small-scale fisheries employ more than 90 percent of the world's capture fisheries workforce and receive few if any subsidies. With fish stocks declining globally due to open access and poor governance of both land and sea, small-scale fishers and their families continue to be marginalized to a life of extreme poverty. In the Philippines, the National Anti-Poverty Commission (NAPC) characterizes small-scale fishers as the poorest sector in the nation.

The USAID Land and Urban Office's Tenure and Global Climate Change (TGCC) program has developed focused guidance designed to assist USAID staff and partners consider the role of sustainable small-scale fisheries and responsible governance of marine tenure in reducing extreme poverty. As part of this process two resources were produced: a draft sourcebook that documents the state of knowledge and good practices; and, a primer that provides specific guidance and job aids. Field assessments have been conducted in the Philippines and Indonesia, alongside a desk-based study in Bangladesh, to refine this guidance based on lessons from the field.

FIELD ASSESSMENT OBJECTIVES AND APPROACH

As part of the TGCC mechanism, the Land and Urban Office has produced guidance for inclusion of marine tenure in programming and projects in collaboration with fisheries projects in the Philippines, Indonesia, and Bangladesh. This field assessment feeds into the broader refinement of USAID guidance for the inclusion of tenure into fisheries programming. The initial field assessment took place in the Philippines and was carried out over a two-week period from July 4 to 15, 2016.

In addition to testing and refining the draft marine tenure guidance and job aids, key objectives of the field assessment were to:

- Determine the extent to which marine tenure is considered in project design and implementation as an enabling condition for securing sustainable small-scale fisheries;
- Identify challenges and opportunities for investing in small-scale fisheries to support multiple USAID development objectives;
- Draw out insights and lessons that can be applied to USAID marine and coastal programming worldwide; and,
- Improve guidance and tools to support USAID staff and partners to integrate marine tenure and small-scale fisheries in programming and project design.

Prior to the field assessment, the team conducted a review of the existing context for marine tenure and small-scale fisheries in the Philippines. In the field, the team conducted interviews and focus group meetings with USAID staff and implementing partners from Rare and the Ecosystems Improved for Sustainable Harvests (ECOFISH) project as well as project stakeholders from local government units

(LGUs), indigenous peoples groups, Municipal Fisheries and Aquatic Resource Management Councils (MFARMCs), *barangays*, and peoples organizations (PO) in Negros Oriental and Coron.

The field visit to the Philippines was also intended to take stock of the country's rich history of USAID fisheries programming and capture lessons and opportunities that can be applied to future investments not only in biodiversity conservation but also in the larger USAID portfolio dedicated to reducing extreme poverty. Since the 1980s, USAID has supported projects from community- to ecosystem-based levels, building on the best available science and management practices to support the government of the Philippines in their efforts to conserve marine resources and improve the livelihoods of small-scale fishers. These USAID-funded projects have not only been responsive to evolving management paradigms, but have also been at the cutting edge for building capacity for devolved coastal and fisheries management in Southeast Asia and globally.

PHILIPPINES CONTEXT: DEVOLUTION OF MARINE TENURE IN SMALL-SCALE FISHERIES

The 1987 Philippines Constitution established an overarching tenure principle by providing for the preferential use rights of subsistence fishermen to communal marine and fishing resources. Subsequent national laws reflect this tenure principle by establishing municipal waters extending 15 km from the shoreline for exclusive use by small-scale fishers operating in boats less than three gross tons. The responsibility of coastal and fisheries management has been largely devolved to local government (approximately 850 municipalities [and cities] in the country) through the establishment and engagement of MFARMCs composed of fishers and other stakeholders. Despite the strong national and legal policy framework for devolved resource management as the mechanism to uphold the preferential use of small-scale fisheries, building commitment and institutional capacity at multiples levels, from national to community, remains a challenge.

While devolution has established a legally sanctioned enabling environment for the sustainable management of small-scale fisheries at the local government level, there is a need to build up, strengthen and supplement this skeletal architecture so that a top-down meets bottom-up approach can be effectively integrated through a marine tenure and governance lens. Despite the ever-shortening political cycles and changing LGU agendas and MFARMC membership, it has been the existence of legislative protections coupled with capable local-level POs and communities that has provided longer-term continuity and commitment to fisheries management issues. Additionally, although political leaders and elites may be encouraged to support business interests in the marine sector (such as aquaculture or mariculture), there is a growing recognition of the clear advantages of supporting community-based resource management institutions, including the improved representation of often excluded groups, who are also key voting constituents. Ultimately, the generation of effective co-management practices at multiple scales of governance is proving to be an important approach to enabling shared authority over coastal and marine resources.

KEY RECOMMENDATIONS

Recognize the substantial and multidimensional contribution of sustainable small-scale fisheries in reducing extreme poverty. Most coastal and island developing countries have large maritime jurisdictions that support a complex and often conflicting and competing array of human uses. Small-scale fishers are at the heart of this “blue development space” where approximately 10 million Filipinos rely directly on small-scale fishing to meet their household food needs. USAID/Philippines mission staff emphasized the need to develop a shared understanding of the importance and multi-dimensional plight of fishing communities in order to justify investment beyond biodiversity conservation.

USAID/Philippines has an opportunity to support more inclusive economic growth for small-scale fishers, to help youth in fishing communities become part of a more competitively educated workforce, to improve the health and welfare of fishing families, and to meet other development objectives through the next update of the Country Development Cooperation Strategy (CDCS). Existing global agendas on poverty reduction and food security such as the *Global Food Security Act of 2016* and the *Voluntary Guidelines on Securing Sustainable Small-scale Fisheries in the Context of Food Security and Poverty Eradication* (SSF Guidelines) provide a platform to justify investment focusing on fishers.

In discussions with USAID staff, existing analytical tools, such as a political economy analysis (PEA), could be used to expand the development context to provide a more comprehensive analysis of small-scale fisheries as economic and demographic sectors. In addition, a country-level assessment of the status of implementation of the SSF Guidelines, developed collaboratively with partners, could guide the development of multi-sectoral investment strategy to reduce extreme poverty in fishing communities. A SSF Guidelines country-level assessment methodology was tested as part of the Philippines field assessment and has been refined to help USAID missions spearhead this activity with its partners, if deemed appropriate.

Diversify and harmonize investment portfolios to secure sustainable small-scale fisheries.

Historically, USAID's investment in marine and coastal issues has largely focused on meeting biodiversity conservation objectives. Despite great progress made in the Philippines toward reducing threats to marine biodiversity, other social, economic, and governance issues need to be addressed as part of a holistic approach to reduce extreme poverty and build resilience in the small-scale fisheries sector. Discussions held with local leaders and community organizers in Coron and Negros Oriental indicated a strong interest and need to address issues such as poverty (drawing upon the National Anti-Poverty Agenda), food security, and education in the context of fishing communities. On multiple occasions during the field assessment, the team heard that fishing families are seeking alternatives to fishing, especially for their children, but also for themselves. Declining fish stocks, disasters (such as typhoons), and annual seasonal limitations on fishing due to rough sea conditions affect small-scale fishers who depend primarily on fishing for their food and livelihood.

USAID missions should seek innovative ways to diversify and align investments to support multiple development objectives. A country-level policy review on small-scale fisheries could identify priority reforms and strategies that could be supported by different programs within the mission, such as eliminating harmful subsidies that promote overfishing or supporting a more inclusive coastal economy. The team learned during the field assessment that the Philippines National Anti-Poverty Commission (NAPC) has national multidimensional datasets that could be used for geospatial analysis of poverty, biodiversity, vulnerability, and other indicators in coastal communities. This would enable coordinated place-based investment from multiple funding streams.

Consider responsible governance of tenure in small-scale fisheries explicitly in project design. Responsible governance of tenure involves respecting the rights of small-scale fishers and fishing communities to the resources that form the basis of their social and cultural well-being, their livelihoods, and their sustainable development. National legal and policy frameworks, administrative and judicial systems, effective co-management arrangements, dispute resolution mechanisms, local participation and empowerment, and strengthened institutional capacity are all key ingredients of responsible governance of marine tenure.

Over the long history of USAID/Philippines' investment in biodiversity conservation, the consideration of marine tenure has been largely implicit in project design and iterative as new projects are designed. The Coastal Resource Management Project (CRMP) supported the nationwide delineation of municipal waters and strengthened LGU capacity to manage coastal resources and enforce preferential use rights for small-scale fishers. The Fisheries Improved for Sustainable Harvests Project (FISH) strengthened

inter-LGU arrangements to manage fisheries resources sustainably. ECOFISH builds on this legacy by acquiring and using knowledge of the social-ecological system to improve the ecosystem services upon which municipal fishers depend.

A more explicit approach would seek to: (a) define and secure the full bundle of tenure rights, including exclusion, withdrawal/access, management, enforcement, and alienation rights; and, (b) identify and build the capacity of national and local tenure governance bodies to secure these rights by strengthening the role of local resource users in decision making, supporting more effective co-management arrangements and dispute resolution mechanisms, and providing the administrative, legislative, and other mechanisms to recognize tenure rights. A review and analysis of the capacity and record of accomplishment of key tenure governance institutions in the Philippines including national and local government entities, MFARMCs, indigenous peoples groups, and POs is needed to identify strategies to strengthen responsible governance of tenure in the context of the existing national legal and policy framework. The development of situation models and theories of change that explicitly consider governance of both land and marine tenure can provide vital insights on constraints to improve project design and performance.

Work to secure the full bundle of land and marine tenure rights for small-scale fishers.

Preferential use rights of small-scale fishers to fish in municipal waters are protected by the Philippines Constitution and seminal national policies and laws. Both ECOFISH and Rare are supporting security of marine tenure rights, but are not explicitly considering the entire bundle of rights. By providing assistance to LGUs for fisher registration and gear licensing, both projects are securing the rights of fishers to access and extract marine and fishery resources from municipal waters. In the case of ECOFISH, right-sizing the fishing effort within a marine managed area that spans multiple municipalities will help define withdraw/access rights of registered fishers in those municipalities. Secure access to fishery resources needs to be coupled with appropriate support for legislation that enforces the exclusion of fishers from other municipalities from fishing. Rare is strengthening community-based management of marine reserves in combination with managed access zones to provide greater incentives. Under this approach, managed access zones are being established around the marine reserves where access/withdrawal rights are provided only to those fishers enforcing the marine reserve. Further, land tenure for small-scale fishers has also not been considered in project design.

Alienation/transfer rights are not explicitly considered, thus increasing the potential for other rights to be eroded. For example, in Coron, the expansion of leases of municipal water areas to commercial operators of pearl farms was attempted but successfully opposed by local fishers. Further, existing leases provide no compensation for lost fishing grounds. A number of examples from coastal tourism development where small-scale fishers were excluded from an area of municipal waters were highlighted during the field assessment.

Strengthen marine tenure governance institutions to protect tenure rights and effectively engage in co-management arrangements at multiple scales of governance. While marine tenure considerations often focus on the tenure rules governing rights and responsibilities, it also is critical to strengthen marine tenure governance institutions (POs, *barangay*, MFARMCs, as well as various national and local government offices and Sagunian Bayan) that design and support tenure arrangements through the creation and enforcement of associated rules. By providing consistent support to strengthening governance bodies (at *barangay* and municipal levels), an effective institutional modality can be created through which multiple objectives can be pursued over time such as biodiversity conservation, food security, economic growth, and climate change resilience. Focusing not only at the municipal but also at the *barangay* level builds sustainability into the tiered tenure arrangements since communities have the greatest commitment to support their ongoing welfare and well-being. The field assessment revealed that few MFARMCs, the legally mandated body to uphold preferential use rights and recommendatory body for appropriate rules, are truly representative of the small-scale fishers' interests and that they are minimally effective. The erosion of tenure rights has occurred sometimes

with the approval of a MFARMC whose members can be hand-picked by LGU executives. In the absence of capable and transparent local institutions, special interests can threaten tenure security. There is an opportunity to support and strengthen MFARMCs so that they can support the fullness of their mandate, develop effective co-management arrangements, and consider the vision for sustainable management of local waters. An assessment of how well co-management arrangements are working could provide insight into the key gaps and challenges at work in different parts of the Philippines.

Acquire knowledge of the social-ecological system early to define project focal areas and guide interventions. Small-scale fisheries are complex social-ecological systems. Traditional, local, and modern scientific knowledge are all needed to understand the connectivity and interactions among the ecosystem, resource users, governance systems and an array of social, economic, and political drivers. Participatory coastal and fisheries resource assessments (used by a long line of USAID-funded projects) are considered by both Rare and ECOFISH as the standard entry point to foster stakeholder engagement and to build a knowledge base of use patterns and conditions of resources in the area as well as conflicting and competing uses. Given the complexity of these systems, ECOFISH has conducted additional scientific studies and modeling to inform the delineation of the project's focal areas and interventions consistent with an ecosystem-based management approach. Both projects have introduced technology and built capacity to strengthen tenure rights for small-scale fishers such as through registration, marine spatial planning, and right-sizing. For new projects, there is a need to conduct baseline assessments that include not only ecological and socioeconomic conditions, but also characterization of existing marine tenure rights and institutions. Informal or weak marine tenure systems often go unrecognized during project design and implementation. As many fishing households are landless, tenure assessments should also provide an understanding of their land tenure security.

Develop focused job aids designed to guide investments in securing sustainable small-scale fisheries aligned with USAID's program cycle. As comprehensive guidance already exists to support implementation of the USAID program cycle, this field visit confirmed that USAID staff need guiding questions to stimulate and focus thinking and analysis about marine tenure and small-scale fisheries in programming and project design and analysis. These guiding questions can be used to support preparation of the CDCS, PEA, environmental impact assessment, gender analysis, and other important analytical requirements leading to a robust theory of change. Indeed, the USAID Land and Urban Office's TGCC program is taking this approach by developing key questions on marine tenure and small-scale fisheries that can be interjected at appropriate phases of the USAID program cycle.

I.0 INTRODUCTION

Through its commitment to addressing extreme poverty, the U.S. Agency for International Development (USAID) is focused on integrating a deeper understanding of the importance of small-scale fisheries and the role marine tenure plays in achieving multiple development objectives. Small-scale fisheries have been largely invisible in development programming despite their significant role in food security and rural economic development. Secure marine tenure and improved governance are enabling conditions for supporting sustainable small-scale fisheries to meet multiple USAID development objectives if investment constraints are addressed and programming opportunities are seized. The USAID Land and Urban Office's Tenure and Global Climate Change (TGCC) program has developed guidance designed to assist USAID staff and partners to consider sustainable small-scale fisheries and responsible governance of marine tenure in programming and project design. A sourcebook of good practices and emerging themes has been produced as a comprehensive review of the scientific literature and practitioners working in the field. A primer with job aids has been produced to assist USAID staff and partners consider marine tenure and small-scale fisheries in programming and project design. Field assessments were conducted in the Philippines and Indonesia, alongside a desk study in Bangladesh, to obtain a deeper understanding of how marine tenure is implicitly or explicitly considered in project design and implementation.

Small-scale fishers and coastal communities with secure rights over a given fishing area have a strong interest in organizing and acting collectively to manage their resources sustainably. Tenure refers to the relationship (whether defined under formal *de jure* law or under customary law) that individuals and groups hold with respect to land and resources. Marine tenure involves establishing a set of rights and responsibilities in the coastal and marine environment as to who is allowed to use which resources, in what way, for how long, and under what conditions, as well as who is entitled to transfer rights to others and how. Formal recognition of marine tenure provides communities with the security that they can invest in and manage their fishery resources for long-term sustainability. Marine tenure is evident in many existing fisheries practices such as territorial use rights in fisheries, managed access, marine protected areas, and catch shares, all of which involve the delineation of rights and responsibilities over marine and coastal resources. Marine tenure needs a strong governance framework and institutions at both national and local levels to maintain secure tenure rights.

The responsible governance of marine tenure involves respecting the rights of small-scale fishers and fishing communities to the resources that form the basis of their social and cultural well-being, their livelihoods and their sustainable development. National legal and policy frameworks, administrative and judicial systems, effective co-management arrangements, dispute resolution mechanisms, local participation and empowerment, and strengthened institutional capacity are all key ingredients of responsible governance of marine tenure.

This Philippines field assessment report highlights key findings and opportunities to reduce extreme poverty through responsible governance of tenure in small-scale fisheries. The findings and opportunities identified through the field assessments have been used to refine the primer and to assist USAID/Philippines mission staff and partners consider marine tenure and small-scale fisheries in a comprehensive approach to reducing extreme poverty in fishing communities.

2.0 FIELD ASSESSMENT OBJECTIVES AND APPROACH

The USAID/Philippines mission and its projects were selected for the field assessment based on its long history of experience and commitment to marine and coastal programming. The Philippines has already established a significant devolved approach to managing municipal waters that provides preferential rights to small-scale fishermen. Municipal/city government is the primary tenure institution for governance of marine waters extending 15 km from the shoreline.

Job aids developed as part of the primer provided general guidance for the field assessment. Prior to the field assessment, a review of the existing context for marine tenure and small-scale fisheries in the Philippines was conducted to provide a historical context (Appendix 1). In the field, the team conducted interviews and focus group meetings with USAID staff and implementing partners from Rare and the Ecosystems Improved for Sustainable Fisheries (ECOFISH) project, as well as project stakeholders from Local Government Units (LGUs) and members of indigenous peoples groups, Municipal Fisheries and Aquatic Management Councils (MFARMCs), *barangays*, and People's Organizations (POs) in Negros Oriental and Coron. In addition, an interview was conducted with the Philippines country coordinator of the Locally Managed Marine Area (LMMA) Network. A desk review and focus group meeting was conducted to develop a provisional country-level assessment of the status of implementation of the *Voluntary Guidelines for Securing Small-scale Fisheries in the Context of Food Security and Poverty Eradication* (SSF Guidelines) (Appendix 2). The field assessment was carried out over a two-week period from July 4 to 15, 2016. The team consisted of the Contracting Officer's Representative from the USAID Land and Urban Office (Mr. Stephen Brooks), two TGCC staff (Dr. Catherine Courtney – Activity Lead and Dr. Nayna Jhaveri – Resource Governance Advisor), and a fisheries socioeconomic expert (Dr. Robert Pomeroy). Key objectives of the field assessment were to:

- Determine the extent to which marine tenure is considered in project design and implementation as an enabling condition for securing sustainable small-scale fisheries;
- Identify challenges and opportunities for investing in small-scale fisheries to support multiple USAID development objectives;
- Draw out insights and lessons that can be applied to USAID marine and coastal programming worldwide; and
- Improve guidance and tools to support USAID staff and partners consider marine tenure and small-scale fisheries in programming and project design.

A review of how marine tenure and governance has been integrated into the project design and implementation was examined during field interviews with staff of two existing USAID-funded projects. Rare's project is part of a global program addressing issues of managed access focused at the community and municipal levels of governance. ECOFISH was designed to further refine an ecosystem approach to fisheries management (EAFM), as a part of a series of USAID-supported projects promoting coastal resource and fisheries management since the mid-1990s. The objectives of each of these two projects, as well as a few other relevant activities, are briefly set out below:

ECOFISH: The main objective of the ECOFISH project is to improve the management of important coastal and marine resources and associated ecosystems that support local economies. The ECOFISH

project is intended to foster fishing sector reforms through the application of EAFM in large marine conservation areas with the involvement of clusters of LGUs. It promotes the growth and restoration of the profitability of fisheries through conservation of ecosystem health and effective management. ECOFISH aims to conserve biological diversity, enhance ecosystem productivity, and restore profitability of fisheries in eight marine key biodiversity areas (MKBA), using EAFM as a cornerstone of improved social, economic, and environmental benefits. These eight MKBAs represent all six marine bio-regions of the Philippines and are marine ecosystem “hotspots” that mirror the common issues impacting capture fisheries locally and nationally, including: (a) loss of marine biodiversity; (b) declining fish stocks; (c) high population growth; (d) limited private sector investment; (e) inconsistent policies and programs for sustainable fisheries; and, (f) weak institutional and stakeholder capacity to plan and implement fisheries management. In addition to meetings with ECOFISH staff, the field assessment team held focus group meetings and key informant interviews with the stakeholders of one MKBA in Coron, Palawan.

Rare: There are two Rare projects in progress across the Philippines. *Fish Forever*, a project funded by the Bloomberg Foundation and others but not USAID, is primarily focused on empowering the world’s vulnerable coastal communities to sustainably manage their fisheries. It supports the development of a comprehensive, locally-led conservation approach where local fisheries can be strengthened, food security increased, and biodiversity conservation improved. *Fish Forever* works with local communities to create fishing areas that provide fisheries with exclusive access, build community capacity to set up and manage fish recovery zones (where fish stocks can recover unharmed), and use proven marketing techniques to cultivate lasting community support for sustainable fishery management. In addition to meeting with Rare staff, the field assessment team held focus group discussions and key informant interviews with stakeholders in Bindoy, Negros Oriental.

The USAID-funded Global Development Alliance (GDA) put together by Rare in collaboration with Bloomberg seeks to address the negative trends found within the nearshore fisheries sector by transforming incentives through two overlapping phases. In sum, the GDA identifies and pilots approaches that improve social and economic returns of nearshore fisheries in a way that supports and creates greater incentives for biodiversity conservation and sustainable management of fisheries, while both maintaining (and ultimately enhancing) the livelihoods of fishers and those directly and indirectly dependent on fisheries for their income. The focus is on improving economic incentives through managed access area plus sanctuary management (MAA+S), together with exploring and testing the viability of market “pull” strategies that can generate more revenue for fisheries through links with domestic and export markets.

PhiLMMA: The Philippine Locally Managed Marine Area (PhiLMMA) Network, Inc. is a non-stock and non-profit association of organized coastal communities (POs) and support organizations such as non-governmental organizations (NGOs), LGUs, and academic institutions, that envisions developed, empowered, interdependent, and faith-inspired coastal communities sustainably managing healthy marine ecosystems. It is committed to advancing the practice of marine conservation in the Philippines through exchanges and sharing of resources. PhiLMMA seeks to strengthen a national network that builds and enhances capacities of local resource managers in coastal resource management and adaptive management by providing enabling environments for practitioners to share experiences, strategies, resources and information on locally-managed marine areas.

Through community-based approaches, men and women municipal fishers have been able to pass appropriate fisheries policies such as, but not limited to, Marine Protected Area (MPA) establishment, seasonal closure, protection and management of endangered marine species, and up-scaled law enforcement activities. These efforts have resulted in significant increases in fish abundance and fish catch. PhiLMMA promotes multi-sectoral partnerships to facilitate sharing and learning of best practices in the areas of resource monitoring and management, knowledge management, community organizing,

organizational development, policy advocacy, law enforcement, sustainable livelihood, and disaster risk reduction and climate change adaptation.

3.0 PHILIPPINES LEGAL CONTEXT FOR MARINE TENURE AND SMALL-SCALE FISHERIES

Fishers remain the poorest sector in the Philippines. Approximately 10 million Filipinos rely directly on small-scale fishing to meet their household food needs (Armada & Bacalso, 2010). Where 28 out of 100 Filipinos are poor, this ratio becomes 41 out of 100 for fishers. The average wage and salary of a worker in the Philippines is 334 pesos per day; a Filipino in fishing and aquaculture earns 195 pesos per day.

In order to address the prevailing conflict between large and small-scale fishing interests, the 1987 Philippines Constitution specifically declares that the “State shall protect the rights of subsistence fishermen, especially of local communities, to the preferential use of the communal marine and fishing resources, both inland and offshore... [and] provide support to such fishermen through appropriate technology and research... and other services” (Art XIII, Sec. 7). This is to be achieved through the declaration of the people’s right “to effective and reasonable participation at all levels of social, political and economic decision-making” (Art. XIII, Sec. 16). This established an overarching tenure principle regarding preferential rights of subsistence fishermen to be applied nationally.

From the early 1990s, a second marine tenure approach was put into motion when a decentralized system of fisheries management was created in the Philippines with the passage of the 1991 Local Government Code. This, combined with the 1998 Fisheries Code, fleshed out the devolved fisheries management mandate with food security as the primary concern. The Fisheries Code asserts that it is the municipality/city government that has jurisdiction over municipal waters, thus resulting in the local level being the primary operative level for marine tenure and governance (Figure 1). Through this tenure institutional arrangement, the LGU has the fundamental responsibility to manage these waters by supporting preferential rights for small-scale fisheries in practice. In consultation with the MFARMC, the municipality/city government is responsible for the management, conservation, development, protection, utilization, and disposition of all fish and fishery/aquatic resources within the municipal waters. It has the authority to regulate fisheries through controls such as on gears, methods, closed seasons, and MPAs, as well as fishing licenses and permits.

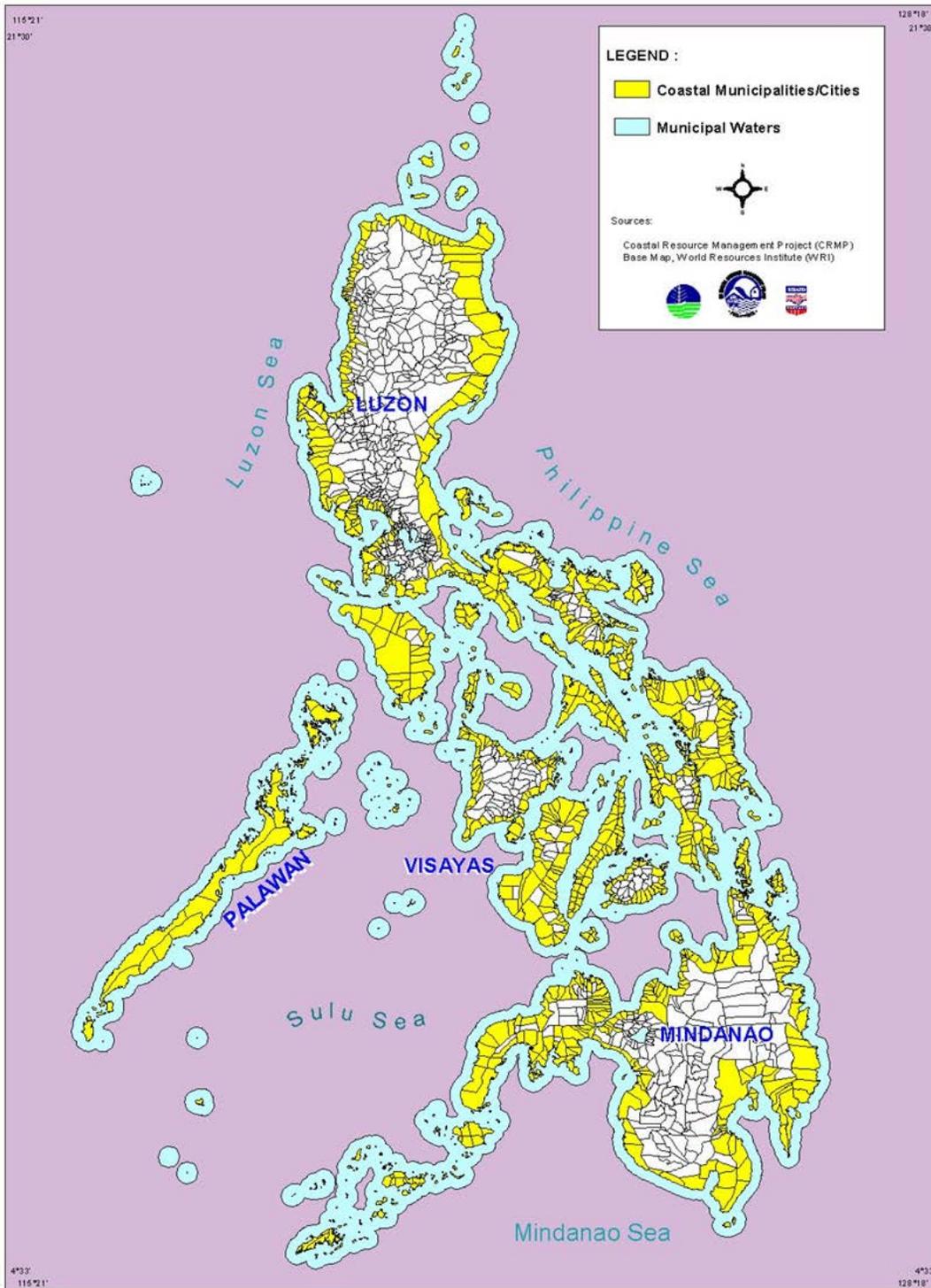


Figure 1. Map showing boundaries of municipalities and cities of the Philippines. Coastal municipalities and cities are highlighted in yellow. Municipal waters reserved for the exclusive use of small-scale fishers and extending 15 km from the shoreline are highlighted in blue.

Three other laws also affect fisheries management, namely the the 1992 National Integrated and Protected Areas System (NIPAS) Act, the 1997 Agriculture and Fisheries Modernization Act, and the 1997 Indigenous People's Rights Act. In 2006, the Philippines government officially adopted Integrated Coastal Management as the national strategy to ensure the sustainable development of the country's coastal and marine environment. More recently, as the inclusive growth agenda has picked up steam nationally, it is clear that the NAPC is attending to the needs of small-scale fisheries by setting up a sectoral council on artisanal fisherfolk that seeks to build understanding about poverty conditions within this large swath of the population.

Starting in the 1960s, alternative methods of resource use and management were explored in an attempt to reverse the negative trends of resource degradation in the Philippines. Consequently, there has been a shift to forward-looking policies and strategies that advocate "resource management" over a "use orientation" through community-based initiatives to rehabilitate, conserve, and protect the resources based on use and enhancement of local knowledge, skills, responsibility, and accountability (Sajise, 1995). The irrigation sector was the first to evolve an institutional development scheme for mobilizing the active participation of water users in 1968. People-oriented programs in the forestry sector started in the early 1970s (Serna, 1993). Community-based coastal resource management (CBCRM) started in the mid-1980s. To date, well over 1,000 CBCRM projects have been implemented by government, NGOs, fishing communities, and academic and research institutions. No country in the world has the range of experience with CBCRM and co-management that exists in the Philippines (Pomeroy & Carlos, 1997). The transition from CBCRM to co-management in the Philippines began in the early 1990s as project implementers, NGOs, fishers, and academics and researchers realized that the focus on community organizing and empowerment of fishers would not be enough to support resource management. It was realized, especially after enactment of the Local Government Code of 1991, that the local government was needed as a partner to provide legal and enforcement support for the community resource management and marine protected areas. CBCRM became an integral part of co-management.

While devolution has established a legally sanctioned enabling environment for the sustainable management of small-scale fisheries at the local government level, there is a need to build up, strengthen, and supplement this skeletal architecture so that a top-down meets bottom-up approach can be effectively integrated through a marine tenure and governance lens. Despite ever-shortening political cycles and changing LGU agendas and MFARMC membership, the existence of legislative protections coupled with capable local-level POs and communities has provided longer-term continuity and commitment to fisheries management issues. Additionally, as much as political leaders and elites may be encouraged to support business interests in the marine sector (such as aquaculture or mariculture), there is a growing recognition of the clear advantages of supporting community-based resource management institutions, including the improved inclusive representation of often excluded groups, who are also key voting constituents. Ultimately, the generation of co-management practices at multiple scales of governance is proving to be an important approach to realize shared authority over coastal and marine resources.

While donor-supported projects promoting biodiversity conservation have been the primary vehicle for addressing the sustainable fisheries challenge, it is anticipated that in future projects there will be both integration of biodiversity with other development goals, as well as new coastal management projects focused on specific development goals such as ending extreme poverty, realizing food security, and increasing resilience to climate change. It has been noted that the biggest crisis among small-scale fisheries is poverty and livelihood opportunities, and not how to generate sustainable fisheries. There is a need to think creatively about livelihood needs.

4.0 FINDINGS AND OPPORTUNITIES

PROGRAMMING TO SUPPORT MULTIPLE DEVELOPMENT OBJECTIVES

I. **Tenure security and governance issues in small-scale fisheries need to be articulated upfront in program and project design and analysis.**

Both land and marine tenure security and governance issues in small-scale fisheries are emerging as issues during project implementation, but have not been fully considered and incorporated upfront in project design. The team observed that many USAID/Philippines marine biodiversity conservation projects are “unconsciously” addressing tenure security and governance issues. This subliminal recognition needs to be transformed into a deliberate recognition in order to support sustainable small-scale fisheries.

- a. **Conduct Political Economy Analysis (PEA) that explicitly includes a focus on tenure security and governance in small-scale fisheries.** A PEA asks questions about the development context, including the factors that impact growth and governance such as politics, rules and norms, social and cultural practices, beliefs and values, and historical and geographical determinants. When developing a new Country Development Cooperation Strategy (CDCS), a PEA is useful in identifying the major forces acting for and against change nationally and in the regions where a mission may work. When designing a new sector project or activity or modifying an existing project or activity significantly, a PEA is useful in trying to decide how to tackle ongoing poor performance and sub-optimal outcomes in a country or sector that is already receiving aid.
- b. **Incorporate tenure issues and approaches in developing the situation model and theory of change.** The development of a situation model and a theory of change are becoming mainstream and a requirement in biodiversity and other programs. Tenure security and governance in small-scale fisheries should be considered and integrated (when appropriate) within the situation model and theory of change. In many sample fisheries situation models, open access is often linked to overfishing as a part of larger unsustainable fisheries issues. The focus on the improvement of tenure security and nearshore resource governance is recommended as a key approach to address open access issues in development programming. This includes explicitly considering rights to use, exclude, enforce, and manage resources through interventions that strengthen these rights.
- c. **Integrate tenure security and governance in small-scale fisheries in environmental and other required analyses.** USAID mission staff must perform a variety of analyses as part of design. These analyses provide another opportunity to ensure that tenure security and governance in small-scale fisheries is addressed upfront. An environmental analysis might reveal that the proposed project will create an unsustainable demand for fishery resources, result in impacts to sensitive marine and coastal habitats, or alienate or displace small-fishers or coastal communities. Additionally, gender analyses are critical for any project that may involve coastal communities, and in particular, fishing families. Women play a crucial role in the responsible governance of marine tenure in small-scale fisheries. They are fishers and gleaners of marine resources from shorelines, reefs, and mangroves, and play an important role in selling fish. The role of women is often invisible in fishing communities and as such women are often excluded from local marine tenure institutions or management bodies where formal decision-making occurs. This underscores the importance of considering tenure dynamics within communities; for example, women may have fewer rights to access key fishing grounds or may be restricted to specific areas for carrying out

gender-specific activities. Such customary rights arrangements may affect the viability of new interventions that identify new livelihoods for marginal populations within communities.

- d. **Develop focused job aids designed to guide investments in securing sustainable small-scale fisheries aligned with USAID's program cycle.** As comprehensive guidance already exists to support implementation of the USAID program cycle, the team confirmed the need for guiding questions to stimulate and focus thinking and analysis about marine tenure and small-scale fisheries in programming and project design and analysis. These guiding questions can be used to support preparation of the CDCS, PEA, environmental impact assessment, gender analysis, and other important analytical requirements leading to a robust theory of change. Indeed, the USAID Land and Urban Office's TGCC program is taking this approach by developing key questions on marine tenure and small-scale fisheries that can be integrated at appropriate phases of the USAID program cycle.
2. **Limiting investments to marine biodiversity conservation has resulted in lost opportunities to reduce extreme poverty in fishing communities.**

The Philippines has a large maritime jurisdiction that supports a complex and often conflicting and competing array of human uses. Small-scale fishers are at the heart of this “blue development space” where approximately 10 million Filipinos rely directly on small-scale fishing to meet their household food needs (Armada & Bacalso, 2010). USAID/Philippines mission staff emphasized the need to develop a shared understanding of the importance and multi-dimensional plight of fishing communities in order to justify investment beyond biodiversity conservation.

Historically, USAID's investment in marine and coastal issues has been limited to meeting biodiversity conservation objectives. Despite the great progress made in the Philippines toward reducing threats to marine biodiversity, other social, economic, and governance issues need to be addressed as part of a holistic approach to reduce extreme poverty and build resilience in the small-scale fisheries sector. Discussions held with local leaders and community organizers in Coron and Negros Oriental, indicated a strong interest and need to address issues such as poverty (drawing upon National Anti-Poverty Agenda), food security, and education. On multiple occasions during the field assessment, the team heard that fishing families are seeking alternatives to fishing, especially for their children but also for themselves. Declining fishing stocks, disaster events such as typhoons, and annual seasonal limitations on fishing due to rough sea conditions impact the small-scale fishers who depend primarily on fishing for food and livelihood. Both Rare and ECOFISH are involved in value chain studies in order to identify appropriate income generation opportunities. Rare is working on squid processing and marketing. Taking a close look at the time-labor involvements of communities in fishing over the annual cycle can support identification of when additional or alternative activities are feasible.

While the focus of the current projects by Rare and ECOFISH is biodiversity conservation, the gains made by these projects are vulnerable to a variety of social, economic, environmental, and political pressures from both land and sea. In the absence of secure land and marine tenure, fishing communities are vulnerable to being displaced or marginalized, and are susceptible to: (a) loss of fishing grounds from land reclamation and leases to commercial interests for aquaculture or mining; (b) degradation of fishing grounds due to overfishing by small and large fishers and poor governance of forest, agriculture, and land use; and, (c) loss of coastal land from economic development, coastal hazards, and impacts of changing climate.

- a. **Leverage US government and global agendas in poverty reduction and food security.** Existing global agendas on poverty reduction and food security such as the *Global Food Security Act of 2016* and the *SSF Guidelines* provide a platform to justify investment. The *SSF Guidelines* are intended to support the visibility, recognition, and enhancement of the already important role of small-scale fisheries and to contribute to global and national efforts towards the eradication of

hunger and poverty. The SSF Guidelines support responsible fisheries and sustainable social and economic development for the benefit of current and future generations, with an emphasis on small-scale fishers and fish workers, inclusive of vulnerable and marginalized people, and promoting a human rights-based approach. Even though the Philippines is not a Feed the Future country, funds can be sought to study fish and food security in the country.

- b. *Include updated information on small-scale fisheries in the next CDCS.*** The CDCS provides an opportunity to incorporate consideration of small-scale fisheries in supporting USAID's top development objective to reduce extreme poverty. Country-specific information is needed to understand the development context for marine and coastal programming. Much of this information is readily available from in-country government agencies and NGOs. Reports from international and regional organizations, such as the Food and Agriculture Organization of the United Nations (FAO), can also serve as important sources of information.
- c. *Assess the country implementation status of the SSF Guidelines.*** At present, there is little knowledge of the existence of the SSF Guidelines among national or local decision-makers. Disseminating the SSF Guidelines (particularly in translation, and ideally in a brief audio-visual format) will help key stakeholders reflect on why marine tenure issues are important to the emerging global and national Philippines agenda on securing sustainable small-scale fisheries. Indeed, the current Philippines context exemplifies many good practices being promoted by the SSF Guidelines. There is room, however, to further explore dimensions of the SSF Guidelines such as the need to address livelihoods, equity, social inclusion, and preferential use rights of small-scale fishers within coastal waters.

An initial assessment of the implementation of the SSF Guidelines in the Philippines was conducted through a desktop review and focus group discussions with USAID staff and partners to seek input on the draft assessment tool. The usefulness of the tool was acknowledged, and good discussions on the meaning of the guidelines were generated, which helped participants understand the complex and multi-sectoral nature of addressing small-scale fisheries. The assessment methodology will be refined based on the field testing. A possible next step would be to hold a larger workshop with relevant stakeholders in the Philippines to introduce the SSF Guidelines and conduct the full assessment. Breakout groups with relevant stakeholders would be formed to discuss the guidelines under specific themes. For each theme, discussions would be held to identify the existence and adequacy of national legal and policy frameworks and to highlight examples of local implementation through programs and projects. The output of the assessment workshop would be a multi-sectoral strategy to strengthen implementation of the SSF Guidelines toward securing sustainable small-scale fisheries.

3. Investment portfolios need diversification and alignment to address extreme poverty in small-scale fishing communities.

Given the strict criteria for use of the earmarked funds associated with programming interests of USAID missions, there is a real risk of investment being stove-piped and bound to specific development objectives with limited flexibility. Therefore, to enhance and optimize return on investment, USAID is encouraged to consider opportunities to diversify and align investments to support multiple development objectives associated with small-scale fishing communities. This is particularly relevant with regards to incorporating and addressing issues associated with marine tenure and coastal resource governance in small-scale fisheries-related programming.

- a. *Develop a harmonized mission-wide policy reform agenda for small-scale fisheries.*** A mission-wide legal and policy reform agenda to address tenure security and governance in small-scale fisheries would enable rational and harmonized investment from multiple investment streams. Such an agenda could advocate for the inclusion of small-scale fisheries in national food

security and nutrition policies and programs; highlight the need to eliminate fishing capacity-enhancing subsidies for fuel, boat construction, port development, or tax exemptions that contribute to overfishing; or support policy reform for beneficial subsidies to small-scale fisheries, improved regulation and enforcement, or improved fishing methods.

- b. *Identify mission-wide priority geographies for investment in small-scale fisheries.*** A mission-wide delineation of priority geographies for investing in small-scale fisheries could be developed to support multiple development objectives. A national vulnerability assessment of fishing communities could overlay poverty, health, nutrition, marine biodiversity, and other factors through geospatial analysis to establish mission-wide priority geographies and provide a place-based framework for individual program investment. The team learned during the field assessment that the Philippines NAPC has national multidimensional datasets that could be used for geospatial analysis of poverty, biodiversity, and vulnerability and other indicators in coastal communities.

PROJECT DESIGN CONSIDERATIONS FOR MARINE TENURE AND SMALL-SCALE FISHERIES

4. Consider marine tenure in project design and implementation.

Marine tenure should be explicitly considered in project design and implementation beginning with the development of a situation model and theory of change for a project. By doing so, the underlying root causes of and strategic actions to address open access will be better identified in small-scale fishing communities. There are numerous benefits to making the existing tenure dimensions more explicit in project design and implementation: (a) it highlights the most appropriate scales at which nested systems of marine tenure and governance can be established through the careful development of a theory of change; (b) it enables projects to track how the specific knowledge of particular stakeholders within the fisheries and coastal environment supports effective management rules and practices; and, (c) it clarifies how benefits are shared by specific sets of users, thus underscoring the equity dimensions of management approaches.

5. Secure the full bundle of land and marine tenure rights for small-scale fishers.

The full bundle of land and marine tenure rights for small-scale fishers need to be identified and secured to support sustainable small-scale fisheries. In the Philippines, the preferential use rights of small-scale fishers to fish in municipal waters (out to 15 km from the shore) are protected by the Philippines Constitution and seminal national policies and laws. Preferential use rights provide an overlay for examining and securing the bundle of tenure rights. Project activities are often focused on a portion of the bundle of tenure rights (Table 1). Greater attention needs to be paid to alienation/transfer rights that have the potential to erode the other rights. For example, in Coron, the expansion of leases of municipal water areas to commercial operators of pearl farms was attempted, but successfully opposed by local fishers. Further, existing leases provide no compensation for lost fishing grounds. A number of examples from coastal tourism development where small-scale fishers were excluded from an area of municipal waters were highlighted during the field assessment.

Table 1. Devolved tenure rights in the Philippines and illustrative project interventions

Tenure Right	Responsibilities of Devolved Tenure Governance Institutions 1998 Philippines Fisheries Code		Illustrative Project Interventions	
	Role of LGU	Role of MFARMC	Rare	ECOFISH
<p>Exclusion Ability to exclude outside fishers from accessing their marine resources or fishing in their fishing grounds</p>	<ul style="list-style-type: none"> Develops fisheries ordinances that determine who can fish in municipal waters 	<ul style="list-style-type: none"> Consults in the formulation of necessary mechanisms for inclusion or exclusion in limiting entry into the municipal waters that shall be most beneficial to the resident municipal fishers Recommends designation of portions of municipal waters for fishery reserves or limited use, educational, research, and/or special management purposes Consults on authorizing or permitting small and medium commercial fishing vessels to operate within the 10 to 15 kilometer area from the shoreline in municipal waters 	<ul style="list-style-type: none"> Promotes exclusion of fishers from other municipalities 	<ul style="list-style-type: none"> Promotes exclusion of municipal fishers from other municipalities outside of the multi-municipal governance system Strengthens exclusive rights of indigenous peoples with ancestral domains
<p>Access/withdrawal Rights to access and extract fish and other marine resources</p>	<ul style="list-style-type: none"> Maintains a registry of municipal fishers 	<ul style="list-style-type: none"> Submits to the local government the list of priorities for consideration in determining priorities among those who will be allowed to fish in municipal waters Assists the local government in maintaining a registry of municipal fishing vessels by type of gear and other boat particulars 	<ul style="list-style-type: none"> Assists LGUs to implement registration and licensing for municipal fishers Works with POs to develop managed access zones surrounding marine reserves Supports marine spatial planning at municipal level 	<ul style="list-style-type: none"> Assists LGUs to implement registration and licensing for municipal fishers Applies ecosystem modeling to right-size fishing effort in an ecosystem-based, multi-municipal governance system Supports marine spatial planning as a consolidating approach for integrated land-water use planning
<p>Management Management and maintenance practices to help</p>	<ul style="list-style-type: none"> Develops fisheries ordinances that establish types and number of fishing 	<ul style="list-style-type: none"> Assists in the preparation of the Village (<i>Barangay</i>) and Municipal Development Plan 	<ul style="list-style-type: none"> Builds capacity for: community-based management, 	<ul style="list-style-type: none"> Builds national capacity for co-management through fish stock assessment and habitat monitoring

Table 1. Devolved tenure rights in the Philippines and illustrative project interventions

Tenure Right	Responsibilities of Devolved Tenure Governance Institutions 1998 Philippines Fisheries Code		Illustrative Project Interventions	
	Role of LGU	Role of MFARMC	Rare	ECOFISH
sustainably use the resource and achieve other goals such as livelihood support, food security, and biodiversity conservation	<ul style="list-style-type: none"> gear allowed for use in municipal waters Develops coastal resource management (CRM) plans 	<ul style="list-style-type: none"> Recommends the enactment of municipal fishery ordinances Recommends the establishment of closed seasons for fisheries management Advises the village/municipal legislative council on fishery matters through its Committee on Fisheries Consults in the establishment of closed seasons for municipal waters Consults in the establishment of catch ceiling limitations in municipal waters for conservation and ecological purposes Consults on the determination of license fees for fishery activities in municipal waters 	<ul style="list-style-type: none"> MPA management, and fish catch monitoring Strengthens community-based MPA management (no-take marine reserves) and clearly marks boundaries with buoys 	<ul style="list-style-type: none"> Builds local capacity for co-management through multi-municipal governance systems Supports co-management for ancestral domain and municipal-level CRM Builds capacity for MPA management and monitoring Supports establishment of marine reserve network using ecological design principles
Enforcement Systems to enforce rules, resolve conflicts, and apply sanctions	<ul style="list-style-type: none"> Enforces fishing ordinances together with Bureau of Fisheries and Aquatic Resources, Philippine National Police, and other enforcement entities 	<ul style="list-style-type: none"> Assists the local government in the enforcement of fishery laws, rules, and regulations in municipal waters 	<ul style="list-style-type: none"> Builds capacity for community-based enforcement Promotes use of graduated sanctions 	<ul style="list-style-type: none"> Builds capacity for multi-municipal-level enforcement
Alienation/transfer Rights to sell, mortgage or lease the resources or area to others	<ul style="list-style-type: none"> Leases use rights to municipal waters 	<ul style="list-style-type: none"> Consults on the designation/establishment of zones for the construction of fish pens, fish cages, fish traps, and other structures for the culture of fish and other fishery products 	<ul style="list-style-type: none"> No indication of work in this area 	<ul style="list-style-type: none"> No indication of work in this area

6. Invest in social-ecological system knowledge to support project design and implementation.

Small-scale fisheries are complex social-ecological systems. Traditional, local, and modern scientific knowledge are all needed to understand the connectivity and interactions among the ecosystem, resource users, governance systems and an array of social, economic, and political drivers. Participatory coastal and fisheries resource assessments (PCRA) (used by a long line of USAID-funded projects) are considered as the standard entry point to foster stakeholder engagement and to build a knowledge base of use patterns and conditions of resources in the area as well as conflicting and competing uses.

Sound empirical research (of different kinds) is needed to support a range of fisheries management interventions. ECOFISH, Rare, and other efforts such as the LMMA network have conducted or used the results of scientific studies and modeling to inform the delineation of the projects focal areas and interventions consistent with an ecosystem-based management approach. ECOFISH's work on modeling larval dispersal and other studies on connectivity between key habitats, such as reefs, mangroves, and sea grasses, play a crucial role in strengthening marine tenure systems as part of ecosystem-based fisheries management. Both ECOFISH and Rare have introduced technology and built capacity to strengthen tenure rights for small-scale fishers such as through registration, marine spatial planning, and right-sizing.

Just as fishery-dependent and fishery-independent data are needed to carry out fishery stock assessments, it will be valuable to consider what types of data provide gender-differentiated insight on the ecological and socioeconomic dimensions of ecosystems. Criteria such as cost, accessibility, and transparency of such data management systems can also be used to evaluate long-term viability in developing locally-based tenure institutions.

For new projects, baseline assessments should not only consider ecological and socioeconomic conditions, but also characterize existing marine tenure rights and institutions. Informal or weak marine tenure systems often go unrecognized during project design and implementation. As many fishing households are landless, tenure assessments should also provide an understanding of their land tenure security. As noted above, it is important to ensure that these assessments consider the intra-community tenure situation, for example of women, youth, and marginalized groups within communities. Access and management rights of these populations are often restricted in comparison to others in the community.

7. Strengthen marine tenure governance institutions to secure tenure rights and support effective co-management arrangements at multiple scales of governance.

There is an opportunity to support and strengthen marine tenure institutions (POs, *barangay*, MFARMCs, as well as various national and local government offices and Sagunian Bayan) so that they can reach their mandate; develop effective co-management arrangements; and, realize the vision of sustainable management of local waters. While marine tenure considerations often focus on the tenure rules governing rights and responsibilities, it is critical to strengthen marine tenure governance institutions that design the tenure arrangements and therefore create these rules. By providing consistent support to strengthen governance bodies (at *barangay* and municipal levels), an effective institutional modality can be created through which multiple objectives can be pursued over time such as biodiversity conservation, food security, eradication of extreme poverty, and climate change resilience. Focusing not only at the municipal, but also at the *barangay* level builds sustainability into the tiered tenure arrangements since communities have the greatest commitment to support their ongoing welfare and well-being.

In the Philippines, the LGU together with the associated MFARMC (as a multi-stakeholder body) form the primary governance structures through which marine tenure rights (exclusion, access/withdrawal,

management, enforcement, and alienation/transfer) in municipal waters are allocated and exercised. The MFARMC together with the LGU should uphold the constitutional and national legal rights of small-scale fishers to the exclusive use of municipal waters. The field assessment revealed, however, that few MFARMCs are truly representative of the interests of small-scale fishers and are minimally effective. The erosion of tenure rights has occurred sometimes with the approval of a MFARMC, whose members can be hand-picked by LGU executives. In the absence of capable and transparent local institutions, special interests can threaten tenure security. This highlights the importance of promoting full and effective participation in community governance structures and the opportunity to support and strengthen MFARMCs.

An assessment of how well co-management arrangements are working could provide insight into the key gaps and challenges at work in different parts of the Philippines. For example, since MFARMCs become more effective where there is active engagement by forward-looking government officials, such as the Municipal Agriculture Office (MAO), there is room to support MAO officers to build up their fisheries expertise and engagement. Additionally, it is clear that communities recognize that the bottom-up budgeting process (now called the grassroots participatory budgeting process) launched in 2012, supported by registered NGOs, has the capacity to generate the needed support for local-level (*barangay*) fisheries management. It has been seriously taken up by communities and has positive momentum associated with it. Still, the protocols and timelines for delivery of funds remain unclear. Finally, the problem of how NIPAS intersects with the Fisheries Code, in terms of the strength of the NIPAS mandate vis-à-vis the local government's authority over municipal waters and the preferential use rights of small-scale fishers, is a key issue that needs to be revisited and clarified.

8. Include marine tenure in MPA network design.

Interest in scaling up MPAs as networks to achieve multiple management objectives, including biodiversity conservation, sustainable fishing, and climate resilience, has emerged over the last 10 years. An emphasis on designing networks of marine reserves based on ecological principles has emerged to help coral reef managers, practitioners, and communities develop networks that support the multiple objectives of sustainable fisheries, biodiversity conservation, and climate resilience.

The Philippines has served as a regional leader in the establishment of MPAs for biodiversity conservation and fisheries management and the application of ecological principles for network design. There is an opportunity to integrate marine tenure in MPA network design to improve management and effectiveness and to ensure that preferential use rights of small-scale fishers are not overlooked.

9. Integrate marine spatial plans and land use plans to secure tenure rights and minimize competing and conflicting resource uses.

Marine spatial planning integrated with land use plans is clearly an important tool for addressing multiple forms of marine tenure arrangements (institutions, rules, and practices) and minimizing competing and conflicting resource uses which could negatively impact small-scale fishers. Marine spatial planning is an effective tool for reconciling marine tenure arrangements, MPA networks, right-sizing, and other fisheries management interventions.

Both Rare and ECOFISH are engaged in various stages of marine spatial planning and are working with LGUs to integrate and reconcile land use and marine spatial plans. The lack of capacity at the LGU level and the political will was referenced as a primary driver of limited support to the more robust focus on the operationalization of integrated marine and land use plans across various LGUs in the region.

10. Recognize and support the substantial role of women in fisheries.

On the central issue of gender equity and small-scale fisheries, the local-level interviews in Coron and Negros Oriental did not indicate that gender inequality is a major challenge given the level playing field between men and women even if their roles are differentiated in a fisheries household. Women are more involved in gleaning, fish gear repair/management, processing, and marketing aspects of the value chain, whereas men are primarily involved in the fisheries catch at sea, and support, together with women, other aspects such as processing and marketing. In terms of marine tenure and governance, it appeared that women were active in POs and MFARMCs. As a result, feedback from communities indicated that the issue of social inequity and related power dynamics is a more pressing concern that merits closer attention.

Findings from a conversation with the LMMA network highlighted that there is a certain amount of gender blindness among key decision-makers as to the role of women in the fisheries sector. Advocacy groups have called for improving registration of women fishers (not only those involved directly in fish catch, but also in processing and marketing). This would in part provide a stronger understanding of the role of women fishers in small-scale fisheries. In addition, women-only groups have the potential to assist in the development of leadership, confidence, and negotiation skills among groups who already play a key role within communities and households.

That said, the Philippines NAPC's fisherfolk sectoral council has highlighted the importance of developing programs that protect and support women fishers who are active in all aspects of fisheries work. It has been recommended that the Registry System for Basic Sectors in Agriculture should include the fisher's gender in order to ensure that policies and programs are tailored in a gender-sensitive way.

In addition, ECOFISH (and LMMA) has been engaged in supporting women-managed marine protected areas (reefs and mangrove areas). These have been slowly built up in an organic fashion and have proven to increase catch of various species while enhancing conservation and protecting shorelines. Some further examination of the reasons behind these successes will be able to demonstrate whether a women-oriented approach brings particular rewards, particularly for poorer and marginalized women. Sharing examples of successful interventions such as the Oyster Women's Association in the Gambia (that won the 2012 Equator Prize) can elevate interest in such approaches.

11. Address issues of land tenure for small-scale fishing families.

While the focus of marine and coastal projects such as ECOFISH and Rare is on the coastal waters, it is recognized that land tenure security for small-scale fishers is an important dimension of achieving effective marine tenure governance, biodiversity protection, and livelihood improvements. Among the communities interviewed, the problem of landlessness was not identified as a primary concern, even though there was evidence of some fishing communities living long-term on public lands and effort had been put towards formalizing their land tenure rights. Nevertheless, a better understanding of the current situation regarding the documentation and security of household land rights (including gender dimensions) will help to identify what types of downstream value chain interests and off-farm opportunities can be pursued given the type of land assets they can leverage. Landed assets will also be important in terms of the space for additional enterprise activities as well as their ability to obtain loans to support them.

The issue of secure and documented land rights is also central to the problem of resettlement in the face of disasters. Foreshore land is very vulnerable to severe storms and impacts of sea level rise. While the issue was not raised in discussions, the problem of land availability and ownership for fish landing sites can be a critical component of how elite control of the local fisheries sector is exerted. As landing sites for small-scale fisheries are typically dispersed throughout the countryside, there is a need to provide security along the supply chain from fish to market.

APPENDIX I: PHILIPPINES CONTEXT FOR MARINE TENURE AND SMALL-SCALE FISHERIES

INTRODUCTION

The Philippines has had a long and evolving history in community-based coastal and fisheries resource management. This Appendix provides an overview of the Philippines context for marine tenure and small-scale fisheries.

STATUS OF PHILIPPINES FISHERIES AND COASTAL RESOURCES

The Philippine archipelago is composed of more than 7,100 islands. It is surrounded by the South China Sea in the north and the west, and the Pacific Ocean in the east. With 17,460 kilometers of coastline and marine waters covering 1,666,000 km², Philippine fishery resources play an important role in the lives and livelihoods of Filipinos. The Philippine archipelago lies in a region of the highest marine biodiversity, with at least 4,951 species of marine plants and animals and 16 endemic species.

Based on the Fisheries Code, the different sectors comprising the fishing industry are the commercial fishers, municipal fishers and aquaculture. The Fisheries Code defines municipal fishing as fishing within municipal waters using fishing vessels of three gross tons (GT) or less, or fishing not requiring the use of fishing vessels. Municipal water is generally defined as the area covered from the shore up to 15 kilometers to the sea.

Commercial fishing refers to the taking of fishery species by passive or active gear for trade, business, or profit beyond subsistence or sports fishing. The sector is further divided into three classes, namely: *small-scale* (utilizing passive or active gear utilizing fishing vessels of 3.1-20 GT); *medium scale* (fishing utilizing active gears and vessels of 20.1-150 GT); and, *large scale* (fishing utilizing active gears and vessels of more than 150 GT). Commercial fishers are usually based near large population centers where they land the bulk of their catch. They roam wide areas in search for fish. Major fishing gears used are the purse seine, trawl, ring net, and bag net.

The latest assessment of Philippine coral reefs revealed that only 5.5 percent are in excellent condition. This dismal state of coral reefs is commonly attributed to siltation, destructive fishing practices, and overfishing. Mangrove forest cover has been reduced from estimates between 400,000-500,000 hectares in the early 1900s to only 150,000 hectares in 2004. Forty-five percent of this mangrove loss is attributed to fishpond conversion. No comprehensive assessment has been done on the status of seagrass beds but they are also vulnerable to overexploitation, conversion, sedimentation, and pollution.

In terms of overfishing, fishery production began to level off during the early 1980s indicating that the maximum sustainable yield (MSY) has been reached. Capture fisheries production, especially by the municipal fishing sector, steadily declined during the period between 1991 and 1998. Although empirical studies have been done to calculate the MSY of the Philippines, exact figures are difficult to calculate given the multi-species nature of the tropical marine environment and the lack of reliable fisheries data after 1985 when fisheries data collection was transferred to a new agency. Analysts are wary to provide species-wide and geographical analysis given the lack of accuracy of fisheries monitoring data.

Palomares and Pauly (2014) reconstructed catch of the Philippines marine fisheries covering the period 1950-2010. Overall, the annual reconstructed catches in the Philippine exclusive economic zone were about 0.24 million tons per year in the early 1950s, which increased and then plateaued in the late 1970s at around 0.9 million tons per year. Expansion into more offshore, pelagic stocks in the late 1980s then enabled a new growth phase, which led to about 2.4 million tons per year being reached in 2010. Overall, this is 0.96 times the catch reported by the FAO on behalf of the Philippines, while the adjusted reported FAO catch estimated from the reconstructed catch is 0.86 times that of the reported FAO catch. The industrial sector (including so-called “baby trawlers” and unreported catch) contributed 66 percent of the catch, the rest consisting of artisanal fisheries (23 percent) and subsistence (11 percent), with recreational fisheries and industrial discards being minimal (0.6 percent). Overfishing is ubiquitous, as is “fishing down,” but efforts are made to counter these, notably through a multitude of MPAs, a tool pioneered in the Philippines. While the reconstructed estimates do not differ strongly from the official estimates, they are based on completely different assumptions about the balance between the industrial and artisanal catch (the latter being re-estimated from the bottom up). Therefore, if the new catch estimates are considered realistic, they should imply a serious re-examination of the Philippines fisheries statistics system.

In some areas, not only has the volume of catch been reduced, but also the quality. For example, in Central Visayas, there has been an overall shift in catch composition, away from coastal pelagic to oceanic pelagic species and away from demersal to pelagic species. In the Visayan Sea, one of the country’s most productive fishing grounds, a major change in composition of catch took place in the 1980s, with coastal pelagics replacing the demersals as the most abundant catch, and invertebrate species shifting from shrimp-dominant to squid-dominant, reflecting a shift in the ecosystem due to fishing pressure and a shift away from trawling to purse seine and ring net. These changes indicate that the Visayan Sea was exhibiting signs of overexploitation as far back as the 1980s.

In the Philippines, the total number of vessels in the municipal fishery sector was estimated at 20,000 units in the whole country in 1948, of which 83 percent were non-motorized. This grew to an estimated 500,000 units after 40 years with a higher percentage of motorized boats (Dalzell & Corpuz, 1990). The total number and total tonnage of commercial fishing boats has risen from 3,265 and 150,260 tons, respectively, in 1988, to 4,014 and 216,090 tons in 1994, a 22.9 percent and 43.8 percent increase, respectively (Courtney et al., 1998). Catch per unit effort as measured in tons/horsepower (t/hp) for the total small pelagic fish catch from municipal (small-scale) fisheries in the Philippines has declined from 2.9 t/hp in 1948 to an estimated 0.20 t/hp in 2000 (Green, White, Flores, Carreon, & Sia, 2003). The Lingayen Gulf, a major fishing ground in northern Luzon, Philippines, reached its maximum sustainable yield more than 20 years ago. It is estimated that the fishery now has 400 percent too much effort for the available fish stocks. Catch rates in Lingayen Gulf are five times smaller than they were in 1990 (Green et al., 2003). In 1983, Pomeroy (1989) estimated that there were 767 full-time fishers using 25 different fishing gear types in the 10 coastal *barangays* (villages) of the municipality of Matalom, Leyte. Subsequent visits to the area by Pomeroy in 1993 and 2001 found an increase in the number of full-time fishers to 923 and 1,087, respectively. Daily fish catch for line fishers had declined from 2.1 kg in 1983 to 0.5 kg in 1993; for fish trap fishers from 13.5 kg to 5.4 kg; and for gillnet fishers from 23.7 kg to 8.3 kg. Research conducted by the WorldFish Center (2002) on coastal fish stocks in the Philippines found that, overall, “the level of fishing in the grossly modified stock is 30 percent higher than it should be (i.e., fish are being harvested at a level 30 percent more than they are capable of producing).”

In the Philippines, critical issues affecting fisheries include: open access; overfishing and excessive fishing pressure; lack of management; inappropriate exploitation patterns; post-harvest losses; small- and large-scale fisheries conflicts; habitat degradation; lack of research and information; and, inadequacy of technical and human resource capabilities, particularly among managers and the agencies concerned in analyzing fisheries.

Coastal communities comprise about 54 percent of all municipalities in the country. The latest census of fisheries shows that there are 2,015,101 fishing operators. Of this, municipal fishing operators occupy a clear majority with 88.4 percent. However, actual classification of fishers as commercial and municipal may not be accurate since most commercial fish workers also work as municipal fishers when there are no fishing expeditions.

Municipal fishers are considered the “poorest among the poor.” In 2000, households whose heads were fishers had a significantly higher poverty incidence than households in general. Their daily income was roughly the retail value of two kg of fish. Low incomes can be attributed to declining fish catch, estimated to be about two kg per day, down from the 20 kg per day that was the average catch during the 1970s.

Households of fishers and those in the fishing industry also had heads with relatively lower education levels compared with households in general. Fishers’ households had lower access rates to basic necessities like safe water, sanitary toilets, and electricity than other households, and were more likely to live in makeshift houses or be squatting. Also, the average size of households of fishers and of those in the fishing industry was greater than the national average.

AN HISTORICAL OVERVIEW OF MARINE TENURE

The island settlers of what would become the Philippines had a long history of traditional fishing rights before the archipelago was first colonized by Spain in the 17th century. The *barangay* (village) had jurisdiction over coastal resources and defined the fishery limits (La Viña, 1999). The traditional property rights of *barangays* over fishing grounds were steadily eroded during the long Spanish colonial period, with community authority and rights superseded by state government control (Kalagayan, 1991). Lopez (1983) reports that under Spanish rule, the *barangays* were eliminated as administrative entities and with them went the territorial fishing rights claimed by each village. Under Spanish law, the fisheries and other natural resources were declared to be held by the Crown. Under both the Spanish and the Americans, traditional authority and rights were superseded by municipal government control of local fishing grounds. This administrative structure of municipal authority remains in place in the country today. Despite the historical existence of traditional fishing rights and village-based management systems in the Philippines, for the most part these systems have disappeared in the country. This is not to say that traditional community-based resource management systems and informal fisheries rights and rules systems do not exist, as localized examples can be found throughout the country (Ferrer, 1989; Mangahas, 1994).

The threat of Japanese encroachment moved the government to finally pass a Fisheries Law in 1932, restricting commercial fishing activities to American and Filipino-owned corporations. For the first time, municipal waters were defined as up to 5.5 km from shore; municipal governments now had authority to grant licenses to commercial fishers within these waters. In the 1960s, the Philippine government, aided by Japanese advisors, undertook intensive infrastructure, technology, extension and credit programs through the Fisheries Development Program to “develop” the industry (Heinan & Gonzales, 1993). In the early 1970s, the country fell under martial law and the centralized government control of fisheries was further reinforced through Presidential Decree (PD) 704, otherwise known as the Fisheries Act of 1975. Under PD 704, fisheries management is the responsibility of the government, both national and municipal. The management measures (mainly through regulatory instruments) undertaken by the government during this time, however, were ineffective in promoting the sustainable development and management of the country’s fisheries. In the mid-1970s, in response to decreasing unit catch of small-scale fishers, the government embarked on fishery policies and development programs concentrated on “use orientation,” that is, increasing production and exploitation of the resource base. In the 1980s, the government continued to support the needs of the sector through the Expanded Fish Production Program from 1983 to 1987. In the small-scale fisheries sector, the strategy of the program was geared

towards enabling the small fishers to venture into deeper waters by equipping them with more efficient boats and fishing gears. The underlying assumption was that the fishery could support increased fishing effort, despite expert opinion as early as 1980 that it could not. Ironically, it was during this period (1984-1988), that there was a decreased rate in coastal fish production of 1.3 percent a year, compared to the increasing rate of 6.1 percent in the preceding five years from 1979-1983 (Agbayani, 1993). The problems in the fishery continued to worsen throughout the late 1980s and early 1990s. The management (mainly through regulatory instruments) and development (increased fishing effort) measures undertaken by the government were still ineffective in promoting the sustainable management and development of the country's fisheries. It was realized that with the increasing rate of deterioration of natural resource systems in the Philippines, there was no way the country could pursue a pathway of sustainable development.

MARINE TENURE ISSUES

The right to use fishery resources for subsistence is enshrined in the Philippine Constitution. The ocean area of the Philippines is an open access resource. Management of local fishery resources is considered not only a responsibility, but also a right. Though the Fisheries Code enthrones this right more to LGUs than to fishing communities, it is evident that the spirit of the law is to devolve powers to manage the coastal resources to the fishers. The legal framework does not clarify/define the designated tenure area or the management mechanism for governance.

The 1998 Fisheries Code is considered a breakthrough in fisheries legislation because it “returns” the management of municipal waters from national to local governments. Organized community members are given the opportunity to formally participate in management efforts through, among others, the MFARMCs. Legal instruments, such as the Certificate of Ancestral Domain Title and Mangrove Stewardship Contracts, now also exist to give coastal communities a semblance of tenure security. These instruments likewise encourage communities to take charge of resource management planning and implementation. Tenure rights are imperative in ensuring that fishing communities obtain permanent, exclusive rights over the resources in a specific area, and that fickle politics or legislation will not eventually deprive them of the long-term benefits of their management efforts (Quicho, Misláng, & Batay-an, 1999; Garcia, 2004).

Case studies in the Philippines have shown that when user rights are specified and secure, there is a change in the behavior and attitude of the resource user towards conservation, and a much greater chance that sustainability will be achieved and maintained (Pomeroy & Carlos, 1997; Pomeroy, 2013).

FISHERIES AND COASTAL RESOURCE MANAGEMENT

The fisheries management narrative has undergone several transitions in the Philippines, as outlined by the following broad themes:

- 1970s-early 1980s: Command and control
- 1980s: Community-based management
- 1980s-1990s: Coastal resource management
- 1990s: Co-management
- 2000s: Integrated fisheries management
- 1990s-2000s: MPA management
- 2010s: EAFM

Starting in the 1960s, alternative methods of resource use and management were explored in an attempt to reverse negative trends. Consequently, there has been a shift to forward-looking policies and strategies that advocate “resource management” over a “use orientation” through community-based initiatives to rehabilitate, conserve, and protect the resources based on use and enhancement of local knowledge, skills, responsibility, and accountability (Sajise, 1995). The irrigation sector was the first to evolve an institutional development scheme for mobilizing the active participation of water users in 1968. People-oriented programs in the forestry sector started in the early 1970s (Serna, 1993). CBCRM started in the mid-1980s. To date, well over 1,000 CBCRM projects have been implemented by government, NGOs, fishing communities, and academic and research institutions. No country in the world has the range of experience with CBCRM and co-management that exists in the Philippines (Pomeroy & Carlos, 1997). The transition from CBCRM to co-management in the Philippines began in the early 1990s as project implementers, NGOs, fishers, and academics and researchers realized that the focus on community organizing and empowerment of fishers would not be enough to support resource management. It was realized, especially after enactment of the Local Government Code of 1991, that the local government was needed as a partner to provide legal and enforcement support for the community resource management and marine protected areas. CBCRM became an integral part of co-management.

The efforts in CBCRM and co-management in the Philippines emanate from the government, NGOs, and international development agencies. In 1989, President Aquino created a Presidential Commission on Anti-illegal Fishing and Marine Conservation or the Bantay Dagat Committee, which called for increased coordination among government agencies in enforcement of fisheries laws and increased participation of fishers in management (Kalagayan, 1991). In 1991, the government recognized the need to increase participation in management and to devolve control over resource access to local levels through policy and institutional reforms. Through several initiatives, the government actively promoted devolution and community-based resource management and co-management efforts to conserve coastal resources and diversify the income sources of the low-income small-scale fishers. These initiatives for CBCRM were embodied in the 1993-1998 Medium-Term Philippine Development Plan. Among its strategies were to implement a community-based fishery management strategy; regulate fishing effort within maximum sustainable yields; promote territorial use rights for small fishers; intensify aquaculture, optimal utilization of offshore, and deep sea resources; and, provide diversified occupational opportunities among marginal fishers. The core program for fisheries implemented under the plan was the Fisheries Sector Program (FSP) from 1990 to 1995. Among the policy and institutional reforms instituted through the FSP were: (1) decentralization of authority and simplification of procedures for clearance of local fisheries management ordinances subject to national laws and/or policies; (2) strengthened enforcement of fisheries laws through municipal-based inter-agency law enforcement teams; (3) promotion of community-based initiatives to rehabilitate, conserve, and protect the coastal resources and to diversify the sources of income of small-scale fishers; (4) engagement of NGOs to assist and undertake community organizing; and, (5) shift to limited access in concerned fishing areas. At the core of the resource and rehabilitation thrust of the FSP was coastal resource management. Fishers, LGUs, and other concerned agencies in the area were given the opportunity to determine the specific problems in their areas and to identify the management strategies to counteract these problems. These activities were continued through a follow-up project called the Fisheries Resources Management Project. Subsequent projects in the Philippines, primarily funded by USAID, such as the Coastal Resource Management Project (CRMP), the Fisheries Improvement for Sustainable Development (FISH) project, and the Ecosystems Improved for Sustainable Fisheries (ECOFISH) project, have continued to build on these reforms and approaches emphasizing an EAFM.

THE LOCAL GOVERNMENT CODE OF 1991

In 1991, the Philippine government enacted into law the Local Government Code (LGC), which devolved the delivery of public services and other administrative activities to LGUs (province, municipal, *barangay*). The LGC marked a shift in public administration from a centrally driven system of top-down management to a bottom-up strategy of expanded participation and responsibility of the LGUs. All matters under the LGC are governed and controlled by the LGUs, governors, congressmen, and mayors. The LGC empowers all LGUs to manage their respective municipalities, except for national heritage parks and protected areas. Among the functions devolved to the LGUs were resource management and environmental protection. National agencies were now required to consult with local leaders in the design of development programs. A general operative principle was a provision that the LGUs may group themselves, and consolidate or coordinate their efforts, services, and resources for purposes commonly beneficial to them. LGUs were given broad powers to generate funds through local taxes or shares in revenue from the exploitation of resources that used to be at the disposal of the national government. The LGC granted local governments (municipalities) a number of powers, including the management of municipal or nearshore waters. LGUs are responsible for the regulation of all fisheries within the municipal waters, including vessels of less than three GT and fishing within 15 km from shore. The national government has no influence on how natural resources are managed within municipal jurisdictions. Section 35 of the LGC specifically states that LGUs may enter into joint ventures and such other cooperative arrangements with POs and NGOs to engage in the delivery of certain basic services, capacity building, and livelihood projects, and to develop local enterprises designed to diversify fisheries, among others.

Section 2(c) of the LGC mandates the participation of stakeholders in coastal resource management programs and projects. The law requires all national agencies and offices to conduct periodic consultations with NGOs, POs, and other concerned sectors of the community before any project or program is implemented.

LGUs and local communities were also given certain privileges and/or preferential rights. Municipalities have the exclusive authority to grant fishery privileges and establish zones in municipal waters and impose rentals, fees, and charges. According to Section 149 of the LGC, municipalities (and cities, under Section 151), through the *Sangguniang Bayan*, may grant fishery privileges or rights to organizations or cooperatives of marginal fishers to erect fish corrals, oyster, mussel or other aquatic beds, or *bangus* fry gathering areas within a definite zone of the municipal waters free of any rental, fee, or charge (de Sagan, 1992; Tabunda & Galang, 1992). Granting fishery privileges within definite zones and establishing fishery refuge and sanctuaries entail the establishment of zones within municipal waters.

A Comprehensive Land Use Plan (CLUP) for each municipality and province is required by law via the LGC (1991) and is a prerequisite to the formation of local or provincial development plans (CEPF, 2001). CLUP refers to the primary and dominant bases for land use, applying a rational approach for allocating available land resources as equitably as possible among competing user groups and for different functions, consistent with the development plan of the area. The CLUP is often weak in LGUs. Likewise, the CLUP is not always developed in remote areas because of the lack of a formal process and thorough understanding of the natural and socioeconomic resources in remote areas.

LGUs have considerable freedom in interpreting the law as it relates to small-scale fisheries and municipal waters, especially because the Fisheries Code usually provides only general guidance, rather than detailed instruction on how to implement it. LGUs are interested in integrated coastal management, which includes habitat protection, shoreline management, mangrove restoration, tourism development, etc. Progressive mayors almost always support programs that tend to protect local resources, but only a handful of local leaders are considered progressive.

It has not been easy for LGUs to manage fisheries, and the rule of law varies substantially, depending on the will and capacity of mayors. While many mayors welcomed new rights, they have realized that they must rely less heavily on the national government for support. Many local governments were not prepared or were unaware of their new roles. Limited resources were made available to them from the national government for the transition, and it has taken them considerable time to adjust to their new authority. Many LGUs have not made any progress, while some have actively engaged in supporting fisher organizations and local management measures. The capacity and education of LGUs are limiting factors in interpreting and implementing the law. As a consequence, the interpretation and practice of implementation can substantially differ between LGUs. Thus, effectiveness mainly depends on the influence, will, and capacity of the LGU administration and its leaders.

The Bureau of Fisheries and Aquatic Resources (BFAR) and LGUs do not work together in a streamlined fashion, partly due to the autonomy of municipalities. Each LGU can adapt its own system, which may not be compatible with other entities either at the national or local level. Problems and inconsistencies become quite obvious, even around otherwise straightforward processes such as vessel registration, traceability monitoring, and catch reporting.

The challenge of harmonizing a national, centralized system while engaging local and community-based organizations is the most important factor that must be considered. Small-scale fisheries are within LGUs, and the jurisdiction and enforcement of marine resource policies varies from each city/municipality because of personal capabilities or bias of LGU leaders. The mayor's will and the organizational level of the individual LGUs are important. However, alignment on fisheries issues between municipalities is currently insufficient. It is therefore important that there is a national governing agency/policy or an oversight body that will ensure enforcement of important policies at the local levels.

FISHERIES CODE OF 1998

In 1998, Republic Act (RA) No. 8550 or the Philippine Fisheries Code was signed into law. Part of the Code consolidates existing laws and guidelines previously scattered among presidential decrees, administrative orders, and local ordinances into a single consistent law regulating fishing and the protection of the aquatic environment. Under the Fisheries Code, several sections of the LGC were clarified and supported. The Code clarified the designation of municipal waters up to 15 km from shore and the granting of preferential rights to fishing privileges in municipal waters to registered fisher organizations and cooperatives. This definition helped to resolve longstanding conflicts between small-scale and commercial fishing. Specifically, fishing rights are granted by LGUs within their municipal waters or special agencies created by law to administer select bodies of water (e.g., Laguna Lake Development Authority, Palawan Council for Sustainable Development). Fishing rights are granted to municipal fishers and their organizations listed in the registry of municipal fishers, subject to certain conditions and limitations. Fishpond licenses are required under the Fisheries Code, with preference given to small or medium enterprises, for up to 50 hectares for individuals and 250 hectares for associations/enterprises, subject to certain conditions.

In addition, the Fisheries Code called for the establishment of Fisheries and Aquatic Resources Management Councils (FARMC) at national and municipal/city levels (MFARMCs) to provide a structure for public participation in coastal and marine resource management (Sec. 69 and 73, RA 8550). MFARMCs are formed among fisher organizations and cooperatives and NGOs with assistance from the LGU and government agencies. MFARMCs are mandated to carry out a number of management advisory functions in close collaboration with the LGU. These functions include assisting in the preparation of Municipal Fishery Development Plans, recommending the enactments of fishing ordinances, assisting in enforcement, and advising the LGU on fishery matters. The members of the MFARMC can include a representative from the accredited NGO, private sector, and at least 11

fisherfolk representatives, including representatives from youth and women (Sec. 75, RA 8550). The 11 fisherfolk representatives consist of seven municipal fisherfolks, one fish worker, and three commercial fishers. For bays, gulfs, lakes, rivers, and dams bounded by two or more municipalities/cities, an Integrated FARMC can be created (Sec. 76, RA 8550).

Under RA 8550, LGUs can implement municipal water zoning as a strategy to effectively perform their responsibility to manage, conserve, develop, protect, utilize, and dispose fish and fishery/aquatic resources within their respective municipal waters. As part of the LGUs' mandate to conserve, develop, and protect fishery resources within their municipal waters, LGUs in consultation with MFARMCs can enact an ordinance establishing fish refuge and sanctuaries (Sec. 81, RA 8550). Fishery sanctuaries have biodiversity conservation functions though they are primarily established to help sustain fisheries production. Registered fisherfolk and cooperatives shall have preferential rights to the fishery privileges issued by the municipal/city government (Sec. 17, RA 8550). In addition, Section 21 of the Fisheries Code gives priority to resident municipal fisherfolk and their organizations/cooperatives in the use of municipal and demarcated fishery areas of the municipality. Fisherfolk can, directly or through the MFARMC, notify the LGU that their preferential rights have been overlooked or disregarded and request that they be granted fishery privileges. If the LGU doesn't take any action, the concerned fisherfolk can file a case in court against the LGU and the concerned officials to assert their rights under RA 8550 and the LGC. Section 16 of RA 8550 gives LGUs the jurisdiction over municipal waters; hence, municipal and city governments have exclusive authority to issue permits or licenses to fish within municipal waters and to issue licenses for fishing gears. Before LGUs can issue licenses and permits, they need to pass an ordinance covering the procedures for granting permits, licenses, and fishery privileges. The Fisheries Code has a long list of prohibited and approved activities based on fishing method employed, resource exploited, location of fishery activity, and other prohibited/regulated activities. An LGU may enact ordinances allowing or banning the use of certain fishing gear in accordance with procedure for local legislation in Sec. 48-59 of RA 7160. An LGU cannot impose a total ban on all types of fishing activities, but it can impose a closed area or closed season for a reasonable time period.

An example best illustrates the importance of these decentralization activities to co-management in the Philippines. Prior to the 1991 LGC, an ordinance to provide legal standing for a community-level MPA required approval by the secretary of the Department of Agriculture, which was a long and often unsuccessful procedure. With passage of the LGC, local municipalities had the legal right to approve an ordinance in support of a community-level MPA. Local government officials and fisher organizations now had the legal and administrative mandate to work cooperatively on coastal resource management. The establishment of MFARMCs under the 1998 Fisheries Code also strengthened co-management, as fishers now had authority to work cooperatively with the LGU on fisheries planning, management, and enforcement. It has not been easy for the LGUs to live up to the provisions of this new legislation in the Philippines. While many mayors have welcomed these new rights, they also realized that they must rely less on the national government for support. As noted above, many local governments were not prepared or were unaware of their new roles and were given little support during the transition. Some LGUs have actively engaged in supporting fisher organizations and local management measures while others have done nothing. In this context, the new administrative structure has bred success in locations that could not have been reached by national programs. Experience has shown that the mere promulgation of legislation and policies to control resource use practices cannot in itself lead to sustainable management of fisheries resources. These efforts must be combined with capacity building and education for all stakeholders. Overall, however, those involved in fisheries conservation and management in the Philippines feel that devolution has been a positive step towards sustainable management of fisheries resources in the country (Tagarino, 1995; Fellizar, Bernardo, & Stuart, 1997; Courtney, White, & Anglo, 2000).

The Fisheries Code was amended in 2015 through Republic Act 10654 to address illegal, unreported, and unregulated (IUU) fishing and other purposes. The amendment adopted the precautionary principle and called for managing fisheries and aquatic resources in a manner consistent with the concept of an ecosystem-based approach to fisheries management and integrated coastal area management in specific natural fishery management areas, appropriately supported by research, technical services and guidance from the State.

THE NATIONAL INTEGRATED PROTECTED AREAS SYSTEM ACT

RA 7586, an Act Providing for the Establishment and Management of National Integrated Protected Areas System (NIPAS), was enacted by Congress in 1992 to respond to the profound impact of human activities on all components of the natural environment particularly the effect of increasing population, resource exploitation, and maintaining the natural biological and physical diversities of the environment (Sec. 2). NIPAS is the national system of classification and administration of all designated protected areas to maintain essential ecological processes and life-support systems, preserve genetic diversity, ensure sustainable use of resources found therein, and maintain their natural conditions to the greatest extent possible (Sec. 4). Briefly stated, the NIPAS Act allows the government to identify and segregate defined areas of land and/or water, and classify them as protected areas for various purposes. All national parks, wildlife reserves, and sanctuaries existing prior to 1992 were automatically incorporated into the NIPAS. A special management body called the Protected Area Management Board was then constituted, comprised of representatives of the national government, local governments concerned, and the private sector or affected communities, which was tasked with the formulation of management plans to ensure the conservation and sustainable management of each protected area.

INTEGRATED COASTAL MANAGEMENT

Through Executive Order (EO 533), signed in 2006, Integrated Coastal Management (ICM) has been adopted by government as the national strategy for the sustainable development of the country's coastal and marine resources. The EO also specifies the establishment of supporting mechanisms for its implementation, specifically the development of a national ICM program. The ICM program is a consultative process involving relevant agencies, sectors, and stakeholders. The program also specifies the provision of direction, support, and guidance to LGUs in the development and implementation of local ICM programs. While the program is a positive development in terms of creating more policy space for CBCRM, the EO is silent on the participation of the national FARMC and the MFARMCs in the planning. The participation of FARMCs could have served to counterbalance the usual top-down mode of government planning.

INDIGENOUS PEOPLES RIGHTS

The 1987 Constitution of the Philippines guarantees resource control and rights of indigenous peoples (IP) to their ancestral lands (Bryant, 2002; Calcari, 2004). Specifically, the Department of the Environment and Natural Resources (DENR) recognizes these rights. DENR issued Administrative Order No. 2 in 1993 to provide guidelines for issuing Certificates of Ancestral Domain Claim (CADC). The CADC gives rights to IPs to manage and to use the resources found within their domains in accordance with existing laws, to gain access to adequate and basic services, and to be able to plan their own future (DENR, 1996). Domains include all lands and natural resources occupied or possessed by indigenous communities. These areas are also necessary to the economic, social, and cultural welfare of the indigenous group (Pinto, 1996). The CADC gives the indigenous group the preferential rights over the resources, but it does not formally give the indigenous group the exclusive use of the resources (Dalabajan, 2001). In order to apply for a CADC, indigenous groups must provide supporting evidence of a claim, such as burial sites and established resource use sites (Eder, 1994). In accordance with the

CADC, indigenous groups must also submit Ancestral Domain Management Plans (ADMP) that are “reflective of their needs and aspirations” (DENR, 1996). The DENR’s Administrative Order No. 34 (series of 1996) provided guidelines for formulating ADMPs where resource users of the ancestral domain would be required to abide by the plan’s stipulations (Dalabajan, 2001). The ADMP is necessary to encourage sustainable resource use while promoting cultural integrity, strengthening ancestral claims, enhancing self-reliance and empowerment, and protecting traditional resource rights. The CADC, through the ADMP, requires migrants entering ancestral lands to respect local management rules and governing bodies, an issue that is critically important in many parts of the Philippines (Bryant, 2002). Although the CADC is not a title to the area, the CADC can serve as a strong basis to protect the community’s tenure (Pinto, 1996). With time, indigenous groups can use their CADC as leverage to obtain a Certificate of Ancestral Domain Title (CADT), meaning full legal sanction of lands. A CADT refers to a title formally recognizing IPs’ resource management rights and full ownership over their ancestral domains (Claver, 2003). The NIPAS recognizes customary rights of IPs to their ancestral domains and supports perpetuation of their cultural practices and traditions. However, until 1997, the Philippines Constitution did not formally implement indigenous rights. The issuance of the CADT is slow and full of controversy. Also, the autonomy of the tribal councils continues to be undermined by national government priorities (e.g., opening up ancestral domains to mining explorations). The National Commission on Indigenous People (NCIP), the national agency representing the IPs, has been charged by some sectors for not providing enough services for IP communities and for misrepresenting IP communities with regards to mining issues (First Peoples Worldwide, 2003).

The Indigenous People’s Rights Act (IPRA) was implemented in 1997, following a long struggle for the recognition of the rights of IPs to their ancestral domain land claim and cultural identity (Republic Act No. 8371, 1997). Massive land grabbing and development aggression in ancestral domains prompted coalition building amongst IPs, whose movements had often been spread and isolated from each other. The advocacy campaign for the IPRA was full of controversy, such as the proper representation of diverse IP communities and the submission of their traditional claims and culture to the legal system.

Under this law, the NCIP was created as the primary government agency to carry out the objectives of the IPRA. The IPRA requires the state to not only respect, recognize, and protect the rights of IPs, but also to preserve and protect their culture, traditions, and institutions (Sec. 29) (First Peoples Worldwide, 2003). The rights protected under IPRA encompass the right to claim ancestral domains that contain the physical environment and the cultural and spiritual bonds associated with the land, including sacred places and traditional fishing grounds (Rimban, 1998). This protection even extends to the traditional indigenous knowledge associated with natural resources (e.g., bioprospecting). IPs can exclude others in exploiting the natural resources within their ancestral domain, including migrant settlers and organizations. Particularly, they are responsible for maintaining ecological balance of their resources (Protected Areas Wildlife Bureau, 1998).

The IPRA recognizes the property rights of indigenous cultural communities over their ancestral domains and ancestral lands. A traditional tribal council (composed of the tribal chief, council members, and spiritual advisers) is recognized by the law to draft policies on natural resource use and development plans in the ancestral domain. The tribal council can exercise their political muscle by invoking the use of their traditional tribal justice system as a sign of their cultural identity and autonomy from the national laws.

Although IPRA has gone through many controversies regarding its constitutionality and its adherence to the culture of IPs, it provides opportunities for IPs to establish community-based property rights over ancestral waters, including marine waters. This has been done by the Calamianes *Tagbanua* in Northern Palawan. The management plan of the tribal council over their ancestral domain became more coherent after they were issued a CADT. The traditional beliefs and practices were enhanced when national laws recognized their mandate over the ancestral domain. It also strengthened the participation of the IPs in

legal policy-making, thus reducing conflicts between different stakeholders. The *Tagbanua* currently enjoy benefits from ecotourism while preserving their culture and conserving their ancestral land and waters.

The NIPAS Act also contains provisions related to the rights of IPs. Section 13 of the Act requires that members of concerned indigenous communities shall be consulted prior to the adoption of any regulations adopted by the DENR for the area, and other parts of the Act require their participation in all aspects of its management.

MANGROVE FORESTS

The agreement mechanisms (related to user and property rights) being used for mangrove management and conservation in the Philippines are the Community-Based Forest Management Agreement (CBFMA), Protected Area Community-Based Resource Management Agreements, Special Agreement in Protected Areas, Special Forest Land Use Agreement, and Forest Land Use Agreement for Tourism Purposes (Melana et al., 2000).

Mangrove forests are under the jurisdiction of the DENR (except areas released for conversion to fishponds). Executive Order 263 established community-based forest management (CBFM) as the national strategy for protection and regeneration of all forests and provides tenure instruments for fisherfolk communities to replant mangroves and sustainably use fishery resources according to an approved management plan. The CBFMA is a production-sharing agreement entered into by an organized community and the government to develop, utilize, manage and conserve specific portions of forest land consistent with the principles of sustainable development and pursuant to an approved Community Resource Management Framework Plan. CBFMAs empower communities to enter into agreements with the private sector and with any unit of government for appropriate development and management projects in multiple use zone timberland areas as contained in the Community Resource Management Framework Plan in accordance with the provisions of Department Administrative Order 96-29, DENR, and other pertinent policies, rules, and regulations. The Framework Plan defines the terms and procedures for access, use, and protection of natural resources within the CBFM area.

The Protected Area Community-Based Resource Management Agreement is entered into by the DENR representing the government and organized tenured migrant communities or interested IPs in protected areas and buffer zones (upland and mangroves). These agreements have terms of 25 years and are renewable for another 25 years. This community-based program provides opportunities to organized tenured migrant communities and IPs to manage, develop, utilize, conserve, and protect the resources within the protected areas and buffer zones. The tenure instrument is issued only within multiple use, sustainable use, and buffer zones. However, the tenure holders may engage in protection and restoration activities in other allowable zones, such as restoration zones consistent with the Protected Area Management Plan. This management plan contains the rationale for protected area establishment, proposed boundaries including buffer zones, and designation of management zones including buffer zones with purposes, strategies and allowable uses.

LGUs need to ensure and enforce an absolute ban on cutting of naturally grown mangrove stands (Fisheries Code, Forestry Code, and National Internal Revenue Code, amending specific provisions of PD 705). Local governments need to be vigilant against non-compliant fishpond lessees including those who do not pay appropriate fees to BFAR and the LGU, those who have abandoned or underutilize their lease areas, and those who have situated their ponds in unreleased areas.

FISHERFOLK SETTLEMENT

The Philippine Fisheries Code has made explicit the reservation for and establishment of fisherfolk settlement areas near fishing grounds, to be done in coordination with concerned agencies of the government. However, this provision is weak for several reasons. First, the law fails to provide for the most appropriate government agency to lead the implementation of the provision. Instead of the Department of Agriculture (referred to as “the Department” in the Fisheries Code), the more appropriate agencies are the DENR, which has jurisdiction over public lands; the Department of Agrarian Reform, which verifies the inclusion or exclusion of the possible settlement areas in the Comprehensive Agrarian Reform Program; and LGUs, which are vested with the authority to zone lands within their jurisdiction. Second, the section does not provide for the participation of fisherfolk in the establishment of such settlement areas. Third, the Code fails to allocate the necessary financial resources to implement the provision. Fourth, the law fails to provide details on how this right will be enforced. Fifth, the provision fails to establish a security of tenure for the fisherfolk because it deprives them the bundle of rights associated with ownership of the land. Finally, the law does not recognize that the area of settlement shall be the same area where fishers are currently settled.

MARINE PROTECTED AREAS

MPAs, such as reserves, sanctuaries, and parks, are used to protect particular well-defined areas and critical habitats (White, Alino, & Memeses, 2006). MPA is a broad term for sites where boundaries have been established in order to provide some level of management. Many MPAs are managed through a community-based or co-management governance arrangement.

The authority to establish and manage an MPA is held by three jurisdictions – local government, DENR, and BFAR. Both national government agencies have responsibilities for protecting marine environments. Laws for protected areas are the National Fisheries Act of 1998 (RA 8550) and the NIPAS Act of 1992 (NIPAS-RA 7586).

LGUs utilize MPAs as a coastal management and fisheries management tool. Within their regulatory boundaries, LGUs are able to establish sanctuaries, limit access to marine resources, prescribe zones for different uses, and collect taxes or fees associated with the use of the municipal waters. LGUs do not require approval from national government agencies to establish municipal reserves or sanctuaries.

A typical MPA or fish sanctuary in the Philippines consists of a core zone (typically a strictly no-take zone) and a buffer zone (usually a limited take zone).

The establishment of a managed marine area is always done with the participation of the community. Community ownership of the intervention is a very important element for the sustained implementation and, ultimately, the success of marine managed or protected area initiatives. Community ownership may not be achieved through a prescribed set of interventions or patented steps, but it helps to have elements in place to ensure higher chances of success.

COMMUNITY RIGHTS REGIMES

In a paper by Vera, Cabaces, and Reyes (2007), they state that:

“Although community-based coastal resource management is a popular approach, it would not be correct to say that the Philippines has a community right regime. The Fisheries Code provides several opportunities as starting points for a community rights regime such as decentralization of the jurisdiction of municipal waters to LGUs, creation of the MFARMC, prioritization of resident fishers in the use of municipal waters, recognition of traditionally marginalized sections of the fisherfolk sector (i.e., women and youth). However, there is still

much more work for fisherfolk communities to realize a community-based rights regime. LGUs would need to pass fishery ordinances that would limit the pressure from migrant fishers to be able to successfully manage municipal waters. Strong fisherfolk organizations or representatives must fully engage the LGU in order to transcend the recommendatory nature of the MFARMCs. In addition, further harmonization between the functions of the BFAR, the DENR and the LGUs needs to be done in order to develop more efficient, decentralized and devolved governance systems of the coastal zone. According to the fisherfolks, a community-based approach does not mean that the government is abandoning their duties and responsibilities and passing it on to the fisherfolks. Instead, the community-based approach pushed the local government to recognize that fisherfolks are key partners of LGUs in serving their constituents. This recognition, including the development of capacities and knowledge in fisheries management and community development, has built up the confidence of the common fisherfolk and empowered them to voice out their vision and issues. This empowerment is greatly recognized by fisherwomen who are members of the organizations. Not only do they get the opportunity to participate in activities outside the household, their knowledge and skills as leaders are recognized by others. Their role in development is more valued. Transformations from the community, organization, household to the individual level are slowly happening.”

RARE TURF-RESERVE

Rare, a US-based NGO with an office in the Philippines, is implementing the *Fish Forever* program. The foundation of the program is establishing TURF-reserves in selected sites in the country. Area-based fishing rights, commonly referred to as TURFs programs, allocate secure, exclusive fishing privileges within a specified marine area to a group case or an individual. TURF-reserves are TURFs paired with no-take reserves, which are areas where no fishing is permitted.

There is no legal basis for TURF-reserves in the Philippines. Because municipalities are free to manage their municipal waters and to define user rights or no take zones and respective policies, any TURF-reserve approach would have to be implemented over a municipal ordinance. For the TURF-reserve to work, it will be important to know who is fishing in which boats, what is being fished, how much, when, and where. Enforcement remains the biggest challenge. In many cases, ordinances cannot be implemented because the municipality has no capacity or budget to employ officers to enforce it. The probability of success for implementing TURF-reserves thus depends on the enabling environment and enforcement of the LGU.

It has been suggested by Rare that the primary policy areas important in the advancement of coastal fisheries and rights-based management in the Philippines pertain to how well the local governments cooperate among themselves in any given area of the country. Since each municipal/city government has its own set of regulations to manage its own areas of jurisdiction, it is important that these are synchronized with other local governments in the same management area. Also, since national law does allow for enforcing areas of access by municipal/city jurisdiction, this requires that groups or clusters of LGUs have a common understanding or agreement and thus legal policies on how they will work together to manage an area. The only successful small-scale fisheries management in the Philippines have occurred where LGUs have banded together and formed management clusters with common local ordinances and binding agreements within the cluster. The Fisheries Code reinforces the need for this cooperation but it does not guarantee that it will occur. In this regard, the regional offices of BFAR can play more of a role in the facilitation of LGUs working together on common fisheries management issues.

Some fisheries experts believe that rights-based management limits more holistic fisheries management that would support broader conservation and development initiatives. Given the Philippines' broader EAFM, rights-based management is a limiting tool that does not incorporate conservation or

development work. Similarly, the TURF approach must respond to location-specific needs. A broad approach that balances resource management, resource rehabilitation, governance, and economic development and livelihoods would be better for the Philippines than narrower rights-based management systems.

LOCALLY MANAGED MARINE AREA (LMMA)

The Philippines is a member of the locally managed marine area (LMMA) Network (Mercado, 2011). The Philippine LMMA (PhiLMMA) Network has member sites in Zambales, Batangas, and Romblon. Two local NGOs, SIKAT and Center for Empowerment and Resource Development, are the LMMA Network members in the Philippines. In the Philippines, the LMMA Network's approach of establishing locally managed marine areas and using community-based adaptive management is often viewed as part of, if not similar to, the familiar CBCRM approach, given the key principles behind both concepts and the history of CBCRM in the country.

An LMMA is an area of nearshore waters and its associated coastal and marine resources that is largely or wholly managed at a local level by the coastal communities, land-owning groups, partner organizations, and/or collaborative government representatives who reside or are based in the immediate area. Communities typically set aside at least part of an LMMA as a no-take reserve (oftentimes referred to as an MPA, but with a different meaning than the formal definition above) or impose certain gear, species, or seasonal restrictions to allow habitat and resources to recover from fishing pressure, or to sustain or increase fish catch. An LMMA can vary widely in purpose and design; however, two aspects remain constant: 1) a well-defined or designated area; and, 2) substantial involvement of communities and/or local governments in decision-making and implementation. In using an LMMA approach, some coastal communities are reviving traditional practices that have been used as part of their culture for many generations. Others are using more modern ideas introduced from outside. Some use a combination of both.

The Learning Framework of the LMMA Network takes into account the importance of governance in LMMA management, with the term "governance" referring to the particular set of institutions, rights, and rules operating within and guiding a society.

COMMUNITY-BASED NATURAL RESOURCE MANAGEMENT

In a review of Philippine community based natural resource management (CBNRM) done for the Ford Foundation, it was concluded that CBNRM remains the nation's best hope for sustainability (Gollin & Kho, 2008). The editors, Gollin and Kho, conclude that government, specifically local government, needs to become integral to community-based management. They posit a multi-stakeholder body attached to the LGU as the form of management most likely to be able to support CBNRM's goals of local control and local benefit. This is felt to be the most viable form of community-based institution. They find that rather than being an easily identifiable "community" to which one can turn over management, the reality is that social boundaries of most organized communities don't equate with the local people's sense of who "the community" is. Vesting particular local organizations with the sole rights to benefits is therefore often and understandably a source of local conflict and does not provide the needed link to sustainability required by CBNRM's premise.

They conclude that the people's organization model of community that prevails in the Philippines CBNRM needs to be modified. The study found the importance of preexisting social solidarity is needed to accomplish natural resource management. Any attempt to externally initiate community natural resource management cannot hope to duplicate this level of internal cohesion. Also, the diversity of resource interests significantly increase the difficulty of internal cohesion. They suggest a two-track approach to community and property rights – one that distinguishes two different categories of rights to

be transferred, use rights and decision-making rights, and two different “community” holders of those rights. The allocation of use rights should be given to the resource users and made secure. The decision-making rights, the power to decide how resource are used and who may use them, should be vested in community-based institutions, a multi-sectoral body formally attached to a LGU.

SEA USE ZONING – MARINE SPATIAL PLANNING

Two USAID-funded projects, the Fisheries Improved for Sustainable Harvests (FISH) project, and the ECOFISH project, have emphasized the use of sea use zoning or marine spatial planning (MSP) (Armada, 2014). In fisheries management, MSP or at least its fisheries use zoning component, is an effective tool for consolidating the range of management interventions, particularly in relation to the various marine spatial uses. Zoning as a tool does not replace any of the coastal and marine management tools already in place. In fact, it should be highlighted that MSP or its fisheries use zoning component will only attempt to consolidate the various management initiatives by ensuring that the spatial scale is considered. In the coastal and fisheries use context, zoning is meant to reduce conflicts among various capture fisheries activities, between capture fisheries and other sea uses (maritime, tourism, and mariculture), and between human activities and marine environment, particularly in key habitats such as mangrove forests, seagrass beds, and coral reefs.

INCENTIVE SYSTEMS FOR STAKEHOLDER PARTICIPATION

Juinio-Memez, Butardo-Toribio, Perez, and Pollisco (2007) identify incentive systems to be established to encourage fishers’ and other stakeholders’ involvement and participation and to lessen overfishing and illegal fishing practices. Various types of stakeholders may have different motivations and interests and, thus, will require different kinds of incentives. The types of incentives that can be applied at the local level include:

- 1) Property rights. Property rights include access and harvest rights that define the extent of use of the resources. This is necessary to prevent over-fishing and open-access fisheries. Another form of property rights is territorial use rights which specify the boundaries of municipal waters that can be used as fishing grounds for exclusive use of registered fisherfolk.
- 2) Skills development and livelihood assistance. Fishers can be provided with technical assistance to improve their skills and income potential. Some examples of support include alternative livelihood training, marketing and transport support, and improved post-harvest facility.
- 3) Financial assistance. Some examples of financing assistance are credit support or livelihood and loan assistance programs for small-scale fishers. LGUs may help marginalized fisherfolk form organizations and cooperatives and help them secure outside financial assistance. Law enforcers, like the *Bantay-dagat* and community volunteers, can also be provided with honoraria or share fines and penalties collected as incentives for their participation.
- 4) Recognition and other support. Local coastal and resources managers and enforcers can be given awards and public recognition for good performance. Incentives may also be in the form of training and capacity building, and logistical support such as uniforms, tools, and equipment.

APPENDIX 2: TAKING STOCK OF THE VOLUNTARY GUIDELINES ON SECURING SUSTAINABLE SMALL-SCALE FISHERIES: A DESK REVIEW OF THE PHILIPPINES

INTRODUCTION

The USAID Land and Urban Office's Tenure and Global Climate Change (TGCC) program developed focused guidance to assist USAID staff and partners in considering the role of sustainable small-scale fisheries and responsible governance of marine tenure in reducing extreme poverty. As part of this process, two documents were developed: a sourcebook that documents the state of knowledge and good practices and a primer that provides specific guidance and tools. Field assessments were conducted in the Philippines and Indonesia, alongside a desk-based study in Bangladesh, to refine the guidance and tools based on lessons from the field.

With growing recognition of the significance of small-scale fisheries to food security, local and global economic growth, biodiversity conservation, and other development objectives around the world, the Food and Agriculture Organization (FAO), working with member states, developed the Voluntary Guidelines on Securing Sustainable Small-scale Fisheries (SSF Guidelines) (FAO, 2015). The Guidelines are the first dedicated international instrument to directly address both small-scale fishers, fish workers, and their families. The TGCC has developed the SSF Guidelines Assessment Tool to conduct a desk review of background information on the national legal, policy, and institutional framework in Indonesia that supports the SSF Guidelines.

SSF GUIDELINES ASSESSMENT TOOL

The SSF Guidelines Assessment tool is designed to help USAID staff and partners take stock of the status of implementation of the *Voluntary Guidelines on Securing Sustainable Small-scale Fisheries in the Context of Food Security and Poverty Alleviation* (FAO, 2015). The tool is organized into eight interconnected dimensions of securing sustainable small-scale fisheries based on the SSF Guidelines (Table 2). Two crosscutting themes in the SSF Guidelines, capacity development and implementation support and monitoring, were incorporated into the eight dimensions.

For each dimension, strategies and good practices were crafted based on the SSF Guidelines and put into a matrix to facilitate assessment and rating. An example of the assessment matrix and worksheet used during the workshop is provided in Table 3. The SSF Guidelines assessment tool is provided together with a desk review conducted to summarize background information for each dimension as well as Indonesia's National Plan of Action for Small-scale Fisheries Management.

Participants drew on presentations and background information to review the extent to which national laws and policies and local implementation were reflective of the SSF Guidelines. Participants identified accomplishments and gaps, developed ratings and rationale, and provided recommendations. The

implementation status is ranked as high, medium, or low for each dimension and then a cumulative rating can be made by considering the status of both national and local status of implementation (Table 3).

Table 2. Key dimensions and strategies based on the SSF Guidelines, FAO (2015)

A. Responsible governance of tenure

1. Recognize and protect legitimate tenure rights
2. Grant preferential and equitable access and use
3. Address competing and conflicting resource uses

B. Sustainable resource management

4. Promote responsible fishing practices and policies that ensure sustainable resource use
5. Strengthen the capacity of stakeholders to manage resource sustainably
6. Develop effective monitoring, control, and surveillance systems
7. Develop effective co-management arrangements

C. Social development, employment, and decent work

8. Improve working conditions and safety for small-scale fisheries workers
9. Develop human resource capacity of small-scale fishers and fishing communities
10. Diversify livelihoods and income-generating activities
11. Ensure access of children and youth in fishing communities to education

D. Value chains, post-harvest, and trade

12. Build capacity for small-scale fisheries to benefit from market opportunities
13. Improve the value chain for fish and fishery products for domestic and export markets
14. Reform national policies to minimize adverse impacts of domestic and international trade on small-scale fisheries

E. Gender equality

15. Mainstream gender equality as an integral part of small-scale fisheries development

F. Disaster risks and climate change

16. Recognize and address the differential impact of natural and human-induced disasters and climate change on small-scale fisheries and communities

G. Policy coherence, institutional coordination, and collaboration

17. Adopt national policies and laws that support an integrated, holistic, ecosystem-based approach to marine and coastal management
18. Establish mechanisms for institutional coordination and collaboration at international, regional, national, subnational levels

H. Information, research, and communication

19. Improve knowledge of social-ecological systems
20. Improve access to information and data needed for decision making

Table 3. Example worksheet used to take stock of the status of implementation of the SSF Guidelines

A. RESPONSIBLE GOVERNANCE OF TENURE	
Overall Rating (circle one) 1 2 3 4 5	
<p>1. Recognize and protect legitimate tenure rights</p> <p>a. Recognize, record, respect, and protect all forms of legitimate tenure rights, taking into account customary rights to aquatic resources and land and small-scale fishing areas enjoyed by small-scale fishing communities.</p> <p>b. Ensure that small-scale fishers, fish workers, and their communities have secure, equitable, and socially and culturally appropriate tenure rights to fishery resources (marine and inland) and small-scale fishing areas and adjacent land, with a special attention paid to women with respect to tenure rights.</p> <p>c. Recognize, respect, and protect local norms and practices, as well as customary or otherwise preferential access to fishery resources and land by small-scale fishing communities including indigenous peoples and ethnic minorities consistent with international human rights law.</p> <p>d. Ensure that small-scale fishing communities are not arbitrarily evicted nor their legitimate tenure rights otherwise extinguished or infringed.</p>	
National Legal/Policy/Institutional Framework	Local Implementation
<p>Rating (circle one) 1 – low 2 – medium 3 – high</p>	<p>Rating (circle one) 1 – low 2 – medium 3 – high</p>
<i>To what extent do existing laws, policies, and institutions support the SSF Guidelines?</i>	<i>To what extent are the SSF Guidelines implemented on the ground?</i>
<i>What are recommendations to improve the legal/policy/institutional framework to better support the SSF Guidelines?</i>	<i>What are recommendations to improve implementation of the SSF Guidelines?</i>
<p>2. Grant preferential and equitable access and use</p> <p>a. Grant preferential access of small-scale fisheries to fish in waters under national jurisdiction, with a view to achieving equitable outcomes for different groups of people, in particular vulnerable groups, including the creation and enforcement of exclusive zones for small-scale fisheries. Small-scale fisheries should be given due consideration before agreements on resource access are entered into with other countries and parties.</p> <p>b. Adopt measures to facilitate equitable access to fishery resources for small-scale fishing communities.</p> <p>c. Restore access to traditional fishing grounds and coastal lands to small-scale fishing communities displaced by natural disasters and/or armed conflict, taking into consideration the sustainability of fisheries resources.</p>	
National Legal/Policy/Institutional Framework	Local Implementation
<p>Rating (circle one) 1 – low 2 – medium 3 – high</p>	<p>Rating (circle one) 1 – low 2 – medium 3 – high</p>
<i>To what extent do existing laws, policies, and institutions support the SSF Guidelines?</i>	<i>To what extent are the SSF Guidelines implemented on the ground?</i>
<i>What are recommendations to improve the legal/policy/institutional framework to better support the SSF Guidelines?</i>	<i>What are recommendations to improve implementation of the SSF Guidelines?</i>
<p>3. Address competing and conflicting resource uses</p> <p>a. Recognize that competition from other users is increasing within small-scale fisheries areas and that small-scale fishing communities, in particular vulnerable and marginalized groups, are often the weaker party in conflicts with other sectors and may require special support if their livelihoods are threatened by development activities of other sectors.</p> <p>b. Consider the social, economic, and environmental impacts of large-scale development on tenure rights through impact studies, and hold effective and meaningful consultations with these communities, in accordance with national legislation.</p>	

Table 3. Example worksheet used to take stock of the status of implementation of the SSF Guidelines

A. RESPONSIBLE GOVERNANCE OF TENURE	
c. Provide small-scale fishing communities and individuals, including vulnerable and marginalized people, access through impartial and competent judicial and administrative bodies to timely, affordable, and effective means of resolving disputes over tenure rights. d. Establish mechanisms to support fishing communities affected by grave human rights violations to rebuild their lives and livelihoods, including the elimination of any form of discrimination against women in tenure practices in case of natural disasters and/or armed conflict.	
National Legal/Policy/Institutional Framework	Local Implementation
Rating (circle one) 1 – low 2 – medium 3 – high	Rating (circle one) 1 – low 2 – medium 3 – high
<i>To what extent do existing laws, policies, and institutions support the SSF Guidelines?</i>	<i>To what extent are the SSF Guidelines implemented on the ground?</i>
<i>What are recommendations to improve the legal/policy/institutional framework to better support the SSF Guidelines?</i>	<i>What are recommendations to improve implementation of the SSF Guidelines?</i>

Table 4. Cumulative Rating Guide

Local Implementation	National Legal/Policy		
	Low	Medium	High
Low (isolated examples)	1	2	3
Medium (several examples)	2	3	4
High (multiple examples)	3	4	5

RECOMMENDATIONS ON TOOL METHODOLOGY AND UTILIZING THE OUTPUT OF THE ASSESSMENT

An initial assessment of the SSF Guidelines implementation in the Philippines was conducted in July 2016 through a desktop review and focus group discussions with USAID staff and partners to seek input on the tool. The rating tool was not used for this exercise due to the limited scale of the effort. The usefulness of the tool was acknowledged. Good discussions on the meaning of the guidelines were generated which helped participants understand the complex and multi-sectoral nature of addressing small-scale fishery challenges.

Recommendations to improve the methodology include:

- (1) The desk assessment of each guideline was successfully achieved. There are 20 specific guidelines in the assessment. It was found that while a first draft could be developed by one person, the range of the guidelines is such that one person will probably not have the knowledge to answer each adequately. There is a need to bring other experts in to comment on and add to the first draft.
- (2) The assessment tool should be revised from the current version to include ratings for national enabling conditions and local implementation. With devolution of fisheries management to local

government units (LGUs) in many countries, it will be important to assess implementation at both levels.

- (3) There is a need to revise the methodology for using the tool to provide guidance on use of the outputs of the tool with a resulting implementation strategy.
- (4) It would be helpful to hold a larger workshop with relevant stakeholders in the Philippines to introduce the SSF Guidelines and conduct the assessment. Breakout groups with relevant stakeholders could be formed to discuss the guidelines under a specific theme. For each theme, discussions could be held to identify the existence and adequacy of national legal and policy frameworks and to highlight examples of local implementation through programs and projects. The output of the assessment workshop could be a multi-sectoral strategy to strengthen implementation of the SSF Guidelines toward securing sustainable small-scale fisheries.

It is not envisioned that the assessment tool would be used to evaluate and rank countries on their level of implementation of the SSF Guidelines, but rather as a tool that could be used within individual countries to identify gaps in small-scale fisheries development and management, develop strategies, or assist in programming of policy and programs. The SSF Guidelines are intended to support the visibility, recognition, and enhancement of the important role of small-scale fisheries and to contribute to global and national efforts towards the eradication of hunger and poverty. The SSF Guidelines support responsible fisheries and sustainable social and economic development for the benefit of current and future generations, with an emphasis on small-scale fishers and fish workers and including vulnerable and marginalized people, promoting a human rights-based approach.

There are several audiences for the output of the assessment: (1) USAID missions and other donor agencies, (2) national and local government officials, (3) researchers and NGOs, and (4) fishers and community level institutions.

For USAID missions and other donor agencies, the output can be used to help staff integrate considerations of sustainable small-scale fisheries and responsible governance of marine tenure in current programming within the mission, future needs for building programming on small-scale fisheries and marine tenure, project design, and evaluation aligned with the program cycle.

For national and local government officials, the output can be used to provide guidance that could be considered for the development and implementation of ecosystem friendly and participatory policies, strategies and legal frameworks for the enhancement of responsible and sustainable small-scale fisheries. It can also be used to help identify gaps in laws, policies, strategies, plans, or regulations supporting responsible governance of marine tenure for sustainable small-scale fisheries. Identified gaps can inform the development context at national and local levels and point the way toward improved implementation of existing laws, policies, strategies, plans, or regulations and strategic policy reform. The output can also be used to strengthen the management functions of government for small-scale fisheries development and management.

For researchers, the output can be used to identify gaps in information and data on small-scale fisheries research priorities. For NGOs, the output can be used to support policy reform and advocacy programs.

For fishers and fishing communities, the output can be used: to understand and ensure that rights are being protected; to promote policy reform and advocacy; to fully integrate applicable obligations, voluntary commitments, and available guidance; to ensure that laws, policies, strategies, plans, or regulations of the country contribute to food security and the equitable development of small-scale fishing communities and poverty eradication; and, to improve the socioeconomic situation of fishers and fish workers within the context of sustainable fisheries management.

SUMMARY OF DESK REVIEW FOR THE PHILIPPINES

This desk review provides an overview of each dimension of the SSF Guidelines Assessment Tool and a summary of the Philippines legal, policy, and institutional framework that supports the SSF Guidelines.

A. RESPONSIBLE GOVERNANCE OF TENURE

SSF GUIDELINES OVERVIEW

Responsible governance of tenure forms a core theme in the SSF Guidelines and provides a springboard for strengthening national fisheries laws and policies and for recognizing and securing local community-based institutional platforms to manage coastal fisheries through an ecosystem-based management approach. National legal and policy frameworks, administrative and judicial systems, effective co-management arrangements, dispute resolution mechanisms, local participation and empowerment, and strengthened institutional capacity are all key ingredients for responsible governance of marine tenure. Responsible governance of tenure should be aligned closely with human rights, especially in small-scale fisheries (Charles, 2013).

The SSF Guidelines urge states to adopt national legislation to strengthen responsible governance of tenure of land, fisheries, and forests to ensure that small-scale fishers, fish workers, and their communities have secure, equitable, and socially and culturally appropriate tenure rights to fishery resources, fishing areas, and adjacent land (Table 5). Formal recognition of marine tenure provides communities with the security needed to invest in and manage their fishery resources for long-term sustainability. Granting preferential access to fish and water through the creation and enforcement of exclusive use zones and effective and transparent mechanisms, and addressing resource use conflicts are needed to protect the rights of small-scale fishers. Conflict resolution mechanisms are necessary to address competing and conflicting use of land and nearshore waters.

Table 5. Responsible governance of tenure strategies and good practices [adapted from FAO (2015)]

1. Recognize and protect legitimate tenure rights
a. Recognize, record, respect, and protect all forms of legitimate tenure rights, taking into account, where appropriate, customary rights to aquatic resources and land and small-scale fishing areas enjoyed by small-scale fishing communities.
b. Ensure that small-scale fishers, fish workers and their communities have secure, equitable, and socially and culturally appropriate tenure rights to fishery resources (marine and inland) and small-scale fishing areas and adjacent land, with a special attention paid to women with respect to tenure rights.
c. Recognize, respect, and protect local norms and practices, as well as customary or otherwise preferential access to fishery resources and land by small-scale fishing communities including indigenous peoples and ethnic minorities consistent with international human rights law.
d. Ensure that small-scale fishing communities are not arbitrarily evicted and that their legitimate tenure rights are not otherwise extinguished or infringed.
2. Grant preferential and equitable access and use
a. Grant preferential access of small-scale fisheries to fish in waters under national jurisdiction, with a view to achieving equitable outcomes for different groups of people, in particular vulnerable groups, including the creation and enforcement of exclusive zones for small-scale fisheries. Small-scale fisheries should be given due consideration before agreements on resource access are entered into with other countries and parties.
b. Adopt measures to facilitate equitable access to fishery resources for small-scale fishing communities.
c. Restore access to traditional fishing grounds and coastal lands to small-scale fishing communities displaced by natural disasters and/or armed conflict, taking into consideration the sustainability of fisheries resources.

Table 5. Responsible governance of tenure strategies and good practices [adapted from FAO (2015)]

3. Address competing and conflicting resource uses	
a.	Recognize that competition from other users is increasing within small-scale fisheries areas and that small-scale fishing communities, in particular vulnerable and marginalized groups, are often the weaker party in conflicts with other sectors and may require special support if their livelihoods are threatened by the development and activities of other sectors.
b.	Consider the social, economic, and environmental impacts of large-scale development on tenure rights through impact studies, and hold effective and meaningful consultations with these communities, in accordance with national legislation.
c.	Provide small-scale fishing communities and individuals, including vulnerable and marginalized people, access through impartial and competent judicial and administrative bodies to timely, affordable, and effective means of resolving disputes over tenure rights.
d.	Establish mechanisms to support fishing communities affected by grave human rights violations to rebuild their lives and livelihoods, including the elimination of any form of discrimination against women in tenure practices in case of natural disasters and/or armed conflict.

LEGAL, POLICY, AND INSTITUTIONAL FRAMEWORK

There is a strong legal framework for protecting tenure rights in the Philippines. The exclusive right of Filipinos to use fishery resources and preferential use rights for subsistence is enshrined in the Philippine Constitution. At the same time, the ocean area of the Philippines is an open access resource. Management of local fishery resources is considered not only a responsibility but also a right. Though the Fisheries Code enthrones this right more to LGUs rather than fisherfolk communities, it is evident that the spirit of the law is to devolve powers to manage the coastal resources to the fisherfolk. The legal framework does not clarify/define the designated tenure area or the management mechanism for governance. There is no transfer of fishing rights to foreign fishers allowed.

The 1998 Fisheries Code is considered a breakthrough in fisheries legislation because it “returns” the management of municipal waters from national to local governments. Organized community members are given the opportunity to formally participate in management efforts through, among others, the Fisheries and Aquatic Resources Management Councils (FARMCs). Legal instruments, such as the Certificate of Ancestral Domain Title, Community-Based Forest Management Agreement, and Mangrove Stewardship Contracts, now also exist to give coastal communities a semblance of tenure security. These instruments likewise encourage communities to take charge of resource management planning and implementation. Tenure rights are important to ensure that fisherfolk communities obtain permanent, exclusive rights over the resources in a specific area, and that fickle politics or legislation will not eventually deprive them of the long-term benefits of their management efforts.

Registered fisherfolk and cooperatives shall have preferential rights to the fishery privileges issued by the municipal/city government (Sec. 17, RA 8550). In addition, Section 21 of the Fisheries Code gives priority to resident municipal fisherfolk and their organizations/cooperatives in the use of municipal and demarcated fishery areas of the municipality.

The Fisheries Code clarified that municipal waters extend up to 15 km from shore. Municipalities are free to manage their municipal waters, to define user rights or no take zones, and to develop policies. This definition helped to resolve longstanding conflicts between small-scale and commercial fishing. Fishing rights are granted to municipal fisherfolk and their organizations listed in the registry of municipal fisherfolk, subject to certain conditions and limitations.

The Fisheries Code provides the legal structure for establishing governance structures for an ecosystem-based approach to fisheries management through the Integrated FARMCs and the ability of

municipalities to coordinate municipal fisheries ordinances to address common concerns and enforcement. A general operative principle of the Local Government Code is a provision that LGUs may group themselves, consolidate or coordinate their efforts, services and resources for purposes commonly beneficial to them.

Under RA 8550, LGUs can implement municipal water zoning as a strategy to effectively perform their responsibility to manage, conserve, develop, protect, utilize and dispose fish and fishery/aquatic resources within their respective municipal waters. As part of the LGUs' mandate to conserve, develop, and protect fishery resources within their municipal waters, LGUs in consultation with FARMCs can enact an ordinance establishing fish refuges and sanctuaries (Sec. 81, RA 8550). Fishery sanctuaries have biodiversity conservation functions though they are primarily established to help sustain fisheries production.

The Indigenous People's Rights Act (IPRA) requires the state to not only respect, recognize, and protect the rights of Indigenous Peoples (IPs) but also to preserve and protect their culture, traditions, and institutions (Sec. 29).

The law governing the management, development, protection, and disposition of fisheries and aquatic resources in the Autonomous Region in Muslim Mindanao (ARMM) is the Muslim Mindanao Autonomy Act 86, also known as the ARMM Aquatic and Fisheries Code of 1999. The Framework Agreement on the Bangsamoro in Muslim areas of Mindanao would provide for exclusive use rights to utilize and manage natural resources to the Bangsamoro. This is generally considered to be a sovereignty issue more than a property rights issue.

Not all LGUs are recognizing and protecting legitimate tenure rights in practice. While all LGUs are required to have a Coastal Resources Management (CRM) plan including a fisheries management plan which recognizes tenure rights, there may not be actual implementation. Much of the recognition depends upon the priorities of the mayor.

B. SUSTAINABLE RESOURCE MANAGEMENT

SSF GUIDELINES OVERVIEW

The SSF Guidelines urge states to adopt and implement national legislation that supports responsible fishing practices and sustainable resource use. Secure tenure rights must be accompanied by the adoption at all levels of responsible fishing practices (Table 6). Government and local institutional capacity must be strengthened to participate in decision making and manage resources sustainably. Effective monitoring, control, and surveillance systems are needed to address IUU fishing. Co-management arrangements between government and local stakeholders need to be clearly articulated and upheld.

Table 6. Sustainable resource management strategies and good practices [adapted from FAO (2015)]

4. Promote responsible fishing practices and policies that ensure sustainable resource use	
a.	Adopt measures for the long-term conservation and sustainable use of fisheries resources and to secure the ecological foundation for food production giving due recognition to the requirements and opportunities of small-scale fisheries.
b.	Recognize that rights and responsibilities come together and tenure rights are balanced by duties, and support the long-term conservation and sustainable use of resources and the maintenance of the ecological foundation for food production.
c.	Promote fishing practices that minimize harm to the aquatic environment and associated species and support the sustainability of the resource.

Table 6. Sustainable resource management strategies and good practices [adapted from FAO (2015)]

d. Avoid policies and financial measures that may contribute to fishing overcapacity and, hence, overexploitation of resources that have an adverse impact on small-scale fisheries.
5. Strengthen the capacity of stakeholders to manage resource sustainably
a. Enhance the capacity of small-scale fishing communities to enable them to participate in decision-making processes.
b. Develop knowledge and skills to support sustainable small-scale fisheries development and successful co-management arrangements.
c. Facilitate, train, and support small-scale fishing communities to participate in and take responsibility for their legitimate tenure rights and systems and the management of the resources on which they depend for their well-being and that are traditionally used for their livelihoods, with special attention to equitable participation of women and vulnerable and marginalized groups.
6. Develop effective monitoring, control, and surveillance systems
a. Improve availability and access to information necessary for responsible small-scale fisheries and sustainable development, including on IUU fishing.
b. Establish new or promote the application of existing monitoring, control, and surveillance systems applicable to and suitable for small-scale fisheries.
c. Establish effective monitoring and enforcement mechanisms to deter, prevent, and eliminate all forms of illegal and/or destructive fishing practices having a negative effect on marine and inland ecosystems.
d. Improve registration of small-scale fishers to support monitoring, control and surveillance systems and provide to the state fisheries authorities the information required for the management of the activity.
7. Develop effective co-management arrangements
a. Promote participatory management systems, such as co-management.
b. Ensure clarification and agreement on co-management roles and responsibilities through a participatory and legally supported process.
c. Encourage and support the role and involvement of both men and women, whether engaged in pre-harvest, harvest, or post-harvest operations, in the context of co-management and in the promotion of responsible fisheries.
d. Address transboundary issues with shared waters and fishery resources, to ensure that small-scale fishing communities granted rights are protected.

LEGAL, POLICY, AND INSTITUTIONAL FRAMEWORK

There is strong national legislation supported by national institutions for sustainable resource management in the Philippines. LGUs have responsibility for sustainable resource management within municipal waters up to 15 km from shore. Implementation is variable and depends upon the priorities of local government officials.

RA 8550, the Fisheries Code, refers to the development, management, and conservation of the fisheries and aquatic resources and integrates all laws pertinent to fisheries. RA 8550 provides that the Bureau of Fisheries and Aquatic Resources (BFAR) has the mandate to enforce all laws, and formulate and enforce all rules and regulations governing the conservation and management of fishery resources, except in municipal waters. BFAR has the jurisdiction to grant licenses for commercial fishing activities within Philippine waters.

RA 8550 provides for the exclusive jurisdiction of city and municipal governments over the inland and municipal waters concerning the management, conservation, utilization, protection, development, and

disposition over fishery and aquatic resources. RA 8550 supplements the mandates of local governments under the Local Government Code (RA 7160) by empowering local governments to enact appropriate local ordinances for these purposes and enforce all fishery laws and regulations within the municipal waters (Sec. 16, R.A 8550). It therefore strengthens and expands the fisheries management powers of local governments (Sec. 149, Local Government Code).

Section 2 of RA 8550 states: “to protect the rights of fisherfolk, especially of the local communities with priority to municipal fisherfolk, in the preferential use of the municipal waters. Such preferential use, shall be based on, but not limited to, maximum sustainable yield or total allowable catch on the basis of resources and ecological conditions, and shall be consistent with our commitments under international treaties and agreements.”

EO 305 is the evolution of RA 8550 into the LGU. The majority councils of LGUs must adopt all of the Fisheries Code or adopt the Code with amendments before it can be legally implemented by the LGU.

The Fisheries Code was amended in 2015 through Republic Act 10654 to address IUU fishing and for other purposes. The amendment adopted the precautionary principle to manage fishery and aquatic resources in a manner consistent with the concept of an ecosystem-based approach to fisheries management and integrated coastal area management in specific natural fishery management areas, supported by research, technical services and guidance provided by the state.

Capacity building on resource management is carried out primarily by BFAR, the Department of the Interior and Local Government, LGUs, NGOs, and domestic and foreign assisted projects. The regional BFAR offices and the LGUs do little training on fisheries management. The League of Municipalities of the Philippines is also an important actor when it comes to developing capacity to manage resources sustainably given that the Fisheries Code authorizes municipalities to issue Municipal Fisheries Ordinances.

RA 8550, Section 14 requires a monitoring, control, and surveillance system to be established by the Department in coordination with LGUs, FARMCs, the private sector, and other agencies concerned to ensure that the fisheries and aquatic resources in Philippine waters are judiciously and wisely utilized and managed on a sustainable basis and conserved for the benefit and enjoyment exclusively of Filipino citizens. With the 2015 Fisheries Code amendment, IUU fishing was addressed by calling for the installation of a monitoring, control, and surveillance system on all flagged Philippine fishing vessels that helps identify commercial vessels operating illegally in Philippine waters. The amendment also calls for it to be unlawful to intentionally tamper with, switch off or disable the vessel monitoring system.

The Fisheries Code (Sec. 73) endorsed the establishment of FARMCs at the national, municipal and village (*barangay*) levels. The FARMCs are mandated to carry out a number of management advisory functions in close collaboration with the LGUs. These functions include assisting in the preparation of Municipal Fishery Development Plans, recommending the enactment of fishing ordinances, assisting in enforcement, and advising the LGU on fishery matters. Despite this enabling legislation, the FARMCs tend to not be fully functional in most municipalities in the country. The FARMC can influence LGU programs as the bottom-up budgeting program system allows organized fisherfolk to influence how budgets are prioritized and used, yet this is rarely practiced.

C. SOCIAL DEVELOPMENT, EMPLOYMENT, DECENT WORK

SSF GUIDELINES OVERVIEW

The SSF Guidelines urge states to create an environment free from corruption, crime, violence, abuse of authority, and other illegal activities (Table 7). Within the context of sustainable resource management and secure tenure, support for developing alternative income-generating opportunities that diversify livelihoods for economic resilience is necessary.

Table 7. Social development, employment, and decent work strategies and good practices [adapted from FAO (2015)]

8. Improve working conditions and safety for small-scale fisheries workers
a. Create conditions for men and women of small-scale fishing communities to fish and carry out fisheries-related activities in an environment free from crime, violence, mafia activities, piracy, theft, sexual abuse, corruption, and abuse of authority.
b. Address occupational health issues and unfair working conditions of all small-scale fishers and fish workers by ensuring that the necessary legislation is in place and is implemented.
c. Eradicate forced labor; prevent debt-bondage of women, men, and children; and adopt effective measures to protect fishers and fish workers, including migrants, with a view to the complete elimination of forced labor in fisheries, including small-scale fisheries.
d. Improve sea safety, which includes occupational health and safety, in small-scale fisheries (inland and marine) through the development and implementation of coherent and integrated national strategies, with the active participation of the fishers themselves and with elements of regional coordination, as appropriate.
9. Develop human resource capacity of small-scale fishers and fishing communities
a. Promote investment in human resource development such as health, education, literacy, digital inclusion, and other skills of a technical nature that generate value addition for the fisheries resources as well as awareness-raising.
b. Support the development of and access to other services that are appropriate for small-scale fishing communities with regard to, for example, savings, credit, and insurance schemes, with special emphasis on ensuring the access of women to such services.
c. Recognize that capacity development should build on existing knowledge and skills and be a two-way process of knowledge transfer, providing for flexible and suitable learning pathways to meet the needs of individuals, including both men and women and vulnerable and marginalized groups.
10. Diversify livelihoods and income-generating activities
a. Recognize the economic and professional importance of the full range of activities along the small-scale fisheries value chain: pre- and post-harvest; in an aquatic environment or on land; undertaken by men or by women.
b. Support existing, or the development of, complementary and alternative income-generating opportunities—in addition to earnings from fisheries-related activities—for small-scale fishing communities, as required and in support of sustainable resource utilization and livelihood diversification.
c. Recognize and respect the role of migrant fishers and fish workers in small-scale fisheries, given that migration is a common livelihood strategy in small-scale fisheries.
11. Ensure access of children and youth in fishing communities to education
a. Provide and enable access to schools and education facilities that meet the needs of small-scale fishing communities and that facilitate gainful and decent employment of youth, respecting their career choices and providing equal opportunities for all boys and girls and young men and women.
b. Recognize the importance of children’s well-being and education for the future of the children and for society at large.

LEGAL, POLICY, AND INSTITUTIONAL FRAMEWORK

Social development and work conditions for fishers in the Philippines are protected by several laws and institutions, although implementation tends to vary.

Under the Fisheries Code Article I: Municipal Fisheries, Section 25, fish workers shall be entitled to the privileges accorded to other workers under the Labor Code, Social Security System and other benefits under other laws or social legislation for workers. The Fisheries Code has made explicit the establishment of fisherfolk settlement areas, to be done in coordination with concerned agencies of the government, where certain areas of the public domain, especially near the fishing grounds, shall be reserved for the settlement of the municipal fisherfolk. However, the implementation of this provision is weak.

The Department of Labor and Employment (DOLE) is mandated to formulate policies, implement programs, and serve as the policy-coordinating arm of the Executive Branch in the field of labor and employment. DOLE promotes gainful employment opportunities, develops human resources, protects workers and promotes their welfare, and maintains industrial peace.

While BFAR has no specific service or program on safety at sea or working conditions for small-scale fishers, it does supply life vests to fishers and provide warnings of storms and orientations on fisheries safety. The BoatR program includes safety at sea features such as training. BFAR is providing PhilHealth insurance to registered fishers under the FishR program. LGUs in the country do little to improve working conditions and safety at sea for small-scale fishers. Project NOAH is the Philippines' primary disaster risk reduction and management program under the Department of Science and Technology, providing warning of storms. Monthly contributions by fisherfolk to the Social Security System as self-employed members are fully subsidized by the Department of Agriculture. However, few fishers in the country are covered as self-employed members. While there is limited information, fish workers employed by commercial boats tend not to be cared for very well.

The government has several development plans to improve fishers' incomes and sustain fisheries.

The Philippine national government agencies have mandates through which their respective programs and projects should be contributing to human resource capacity, including those of small-scale fishers and fishing communities. The human resource capacity programs and projects may be implemented or assisted by other countries or by international agencies through a donation or a grant. NGOs, both domestic and international, influence the creation of a conducive environment for human resource capacity for fishery resource management, utilization and conservation.

With the passage of the Local Government Code of 1991, LGUs have the autonomy to identify, develop, and implement programs and projects such as human resource capacity for the local communities. Through the Internal Revenue Fund, LGUs may fund their own programs and projects.

The Amended Fisheries Code created the Fisheries Management Fund, which will provide livelihood and scholarship programs for fishermen and their families. This fund is sourced from penalties on IUU fishing.

Over the last 30 years there have been more than 100 programs and projects with livelihood interventions implemented in coastal areas. A range of different livelihoods have been provided and implemented in fishing and coastal communities with mixed success and sustainability by fisher households. It is estimated that no more than 15-20 percent of livelihood interventions are successful and sustainable; that is, that they are maintained by the recipients one year after the project ends.

The current actors involved in achieving sustainable fisheries livelihoods in the Philippines are national government agencies, LGUs, international donors, private foundations, NGOs, and financing institutions.

RA 8550 has several sections addressing access of children and youth in fishing communities to education through state fisheries schools/colleges, school curriculum, and education campaigns. The Department of Education is authorized to integrate environmental education in school curriculums.

There is a need to better understand how these provisions and various institutions contribute to social development, employment and work in practice.

D. VALUE CHAIN, POST-HARVEST, AND TRADE

SSF GUIDELINES OVERVIEW

The SSF Guidelines highlight the central role of small-scale fisheries in the post-harvest sector and the fact that women should be recognized and supported as important contributors to the value chain (Table 8). Post-harvest actors may have unequal power relationships that require special support or attention. The value chain for fish and fishery products for domestic and export markets must be improved through investments in infrastructure and seafood handling at all stages.

Table 8. Value chains, post-harvest, and trade strategies and good practices [adapted from FAO (2015)]	
12. Build capacity for small-scale fisheries to benefit from market opportunities	
a.	Recognize the central role that the small-scale fisheries post-harvest subsector and its actors play in the value chain.
b.	Recognize the role women often play in the post-harvest subsector and support improvements to facilitate women's participation in work.
c.	Enable timely access to all relevant and accurate market and trade information for stakeholders in the small-scale fisheries value chain.
13. Improve the value chain for fish and fishery products for domestic and export markets	
a.	Recognize the traditional forms of associations of fishers and fish workers and promote that their organizational and capacity development is adequate in all stages of the value chain to enhance their income and livelihood security.
b.	Foster, provide, and enable investments in appropriate infrastructures, organizational structures, and capacity development to support the small-scale fisheries post-harvest subsector in producing good quality and safe fish and fishery products, for both export and domestic markets, in a responsible and sustainable manner.
c.	Avoid post-harvest losses and waste, and seek ways to create value addition, building on existing traditional and local cost-efficient technologies, local innovations, culturally appropriate technology transfers, and environmentally sustainable practices.
14. Reform national policies to minimize adverse impacts of domestic and international trade on small-scale fisheries	
a.	Facilitate access to local, national, regional, and international markets and promote equitable and non-discriminatory trade for small-scale fisheries products.
b.	Give due consideration to the impact of international trade in fish and fishery products and of vertical integration on local small-scale fishers, fish workers, and their communities. Ensure promotion of international fish trade and export production do not adversely affect the nutritional needs of people for whom fish is critical to a nutritious diet and their health and well-being and for whom other comparable sources of food are not readily available or affordable.
c.	Recognize benefits from international trade should be fairly distributed and that effective fisheries management systems are in place to prevent overexploitation driven by market demand that can threaten the sustainability of fisheries resources, food security, and nutrition.
d.	Adopt policies and procedures, including environmental, social, and other relevant assessments, to ensure that adverse impacts by international trade on the environment, small-scale fisheries culture, livelihoods, and special needs related to food security are equitably addressed.

LEGAL, POLICY, AND INSTITUTIONAL FRAMEWORK

Training for local fishing households could improve the value chain by adding value to fish products. Moreover, there should also be training provided on better handling of fish at sea and at the landing sites. Most fishers do not have a good understanding of product handling and quality control. There are many national government agencies providing capacity building for fishers for livelihoods and market development.

Infrastructure, logistics, transportation, and hygiene are all key value chain components that are often limited in the Philippines. Usually the basic infrastructure for a clean place where fish can be stored and chilled is missing. Product quality and spoilage is a major challenge facing the country's fish products, although no reliable estimates exist and the extent of losses in the post-harvest phase of fisheries is difficult to quantify. Locally, an estimated 25 to 30 percent of the total catch is lost due to improper handling. Ice supply and appropriate storage boxes are the typical limiting factors. An opportunity exists to improve post-harvest facilities by enhancing access to salt, ice, and cold storage in strategic locations. Most fishers do not have access to these ways of maintaining product quality. These important changes would involve relatively little effort and yield important gains. Private sector participation should be recruited to help provide such facilities.

The government has several development plans to improve the value chain for fish and fishery products through national government agencies. A number of national government agencies provide support related to domestic and export markets and trade. The challenge for small-scale fishers is to be informed of these programs and to take advantage of them.

It is not possible to understand the buyers and traders in the Philippines without understanding *suki*. It pervades all aspects of the market. The *suki* relationship in the Philippines is a marketing linkage of trust between the buyer and seller. It provides the fisher with a guaranteed outlet for his fish and access to capital, while providing the trader with a steady supply of fish.

E. GENDER EQUALITY

SSF GUIDELINES OVERVIEW

The SSF Guidelines highlight the need for states to achieve gender equality as an integral part of small-scale fishery development strategies (Table 9). Gender equality means equal treatment of women and men in laws and policies, and equal participation, access to resources and services (e.g. justice, education, health) within families, communities and society at large (Arenas & Lentisco, 2011). Gender equality results from applying gender equity principles which refers to the process of fair and just treatment of women and men. To ensure fairness and justice, measures must be put in place to compensate for the historical and social disadvantages that prevent women and men from sharing a level playing field. Gender equality in small-scale fisheries must be mainstreamed in compliance with international human rights law.

Table 9. Gender equality strategies and good practices [adapted from FAO (2015)]

15. Mainstream gender equality as an integral part of small-scale fisheries development	
a.	Comply with obligations under international human rights law and implement the relevant instruments to which they are part.
b.	Secure women's equal participation in decision-making processes for policies directed toward small-scale fisheries.
c.	Establish policies and legislation to realize gender equality, and as appropriate, adapt legislation, policies, and measures not compatible with gender equality, taking into account social, economic, and cultural aspects.

- d. Encourage the development of better technologies of importance and appropriate to women's work in small-scale fisheries.

LEGAL/POLICY/INSTITUTIONAL FRAMEWORK

Guarantees of equality and nondiscrimination are embedded in the Philippines' Constitution and labor legislation. However, gender equality is not recognized as a normative macroeconomic goal in the Philippines' national development plan. Although gender equality is not explicitly expressed in the Philippine Development Plan and the Philippine Labor and Employment Plan, the Philippines has indicated its commitment to promoting gender equality in other parts of the national plans and in sector-specific plans. Sectoral gender mainstreaming in policies/strategies/plans includes gender and development budgets for all sectors and LGUs. The Philippine Plan for Gender Responsive Development 1995-2025 is an example. The Magna Carta of Women (RA 9710) is an overall legislative framework that articulates the specific rights, needs, and supports required by women in their general and working lives. The Philippine Commission on Women participates in policy advocacy and the evaluation of government policies and programs in relation to gender responsiveness. One of the focus areas of the Commission is women's economic empowerment.

Agriculture (agriculture, forestry, and fishing) is one of the largest sectors of women's employment in the Philippines and is identified as a priority for development and export, with food security being an important goal. The overarching agricultural policies and plans do not address the situation of women in the sector, although there are references to gender issues in a number of plans and strategies. Despite ongoing agrarian reform, when compared with men, women own less land and productive assets in their own name than men and are disadvantaged through inheritance laws and land titling systems and in their ability to purchase land. Women are more likely than men to be responsible for subsistence crops and to lack access to cash crops and the resulting income. Furthermore, women receive less agriculture extension training and less credit. In addition to reducing gender-specific constraints in agriculture, there are also opportunities to support women's paid work in processing and value-added production.

The members of the FARMC can include a representative from accredited NGOs, private sector, and at least 11 fisherfolk representatives, including representatives from youth and women (Sec. 75, RA 8550).

F. DISASTER RISK AND CLIMATE CHANGE

SSF GUIDELINES OVERVIEW

The SSF Guidelines highlight the need for holistic approaches and cross-sectoral collaboration to address disaster risk and climate change in small-scale fisheries and fishing communities (Table 10). While coastal and island communities dependent on marine resources have a history of adapting and being resilient to change, ongoing pressures on global fisheries and the impacts of climate change are expected to cause unprecedented transformations that are difficult to predict. The impacts of climate change on coastal communities and small-scale fisheries must be assessed at multiple scales and through the whole value chain.

Table 10. Disaster risk and climate change strategies and good practices [adapted from FAO (2015)]

16. Recognize and address the differential impact of natural and human-induced disasters and climate change on small-scale fisheries and communities	
a.	Develop capacity of small-scale fishing communities to address disaster risks and adapt to climate change.
b.	Account for the impact that climate change and disasters may have on the post-harvest and trade subsector in the form of changes in fish species and quantities, fish quality and shelf-life, and implications with regard to market outlets.
c.	Understand how emergency response and disaster preparedness are related in small-scale fisheries and apply the concept of the relief-development continuum.
d.	Promote the role of small-scale fisheries in efforts related to climate change and encourage and support energy efficiency in the subsector, including the whole value chain—fishing, post-harvest, marketing, and distribution.

LEGAL, POLICY, AND INSTITUTIONAL FRAMEWORK

In 2009, the Congress enacted the Climate Change Act of 2009, RA 9729 and in 2010, RA 10121 or the Philippine Disaster Risk Reduction and Management Act. These twin laws on disaster risk reduction and response management have common goals and objectives: to increase the resilience of vulnerable communities and the country against natural disasters; and to reduce damage and loss of lives and properties due to disasters.

BFAR does not currently have a specific policy on disaster reduction and management and climate change but is developing such a policy through a working unit. BFAR was heavily involved in responding to Typhoon Yolanda. BFAR is working with the Philippine crop insurance company to provide insurance for boats and gear. The Department of Science and Technology is promoting a project on early storm warning systems. LGUs have disaster risk reduction and response management plans that identify the most vulnerable communities in the country. Good plans have been written by consultants; however, these have generally had minimal stakeholder involvement and implementation varies.

G. POLICY COHERENCE, INSTITUTIONAL COORDINATION, AND COLLABORATION

OVERVIEW

The SSF Guidelines urge states to adopt integrated, ecosystem, and holistic approaches to secure sustainable small-scale fisheries and address the many potential social, economic, and environmental factors that can threaten local management of tenure (Table 11). As such, there is an important role for government in creating the policy environment and space for tenure arrangements to succeed (Charles, 2013). International, regional, national, and subnational coordination and collaboration are needed to support a harmonized policy environment for securing sustainable small-scale fisheries that focus on the long-term vision of eradicating poverty and hunger.

Table 11. Policy coherence, institutional coordination and collaboration strategies and good practices [adapted from (FAO, 2015)]

<p>17. Adopt national policies and laws that support an integrated, holistic, ecosystem-based approach to marine and coastal management</p> <p>a. Develop and use spatial planning approaches, including inland and MSP, that take due account of the small-scale fisheries’ interests and role in integrated coastal zone management.</p> <p>b. Adopt specific policy measures to ensure harmonization of policies affecting the health of marine and inland water bodies and ecosystems and to ensure that fisheries, agriculture, and other natural resource policies collectively enhance the interrelated livelihoods derived from these sectors.</p> <p>c. Consider integrated, ecosystem, and holistic approaches to small-scale fisheries management and development that take the complexity of livelihoods into account.</p> <p>d. Recognize and address the underlying causes and consequences of transboundary movement of fishers and contribute to the understanding of transboundary issues affecting the sustainability of small-scale fisheries.</p>
<p>18. Establish mechanisms for institutional coordination and collaboration at international, regional, national, subnational levels</p> <p>a. Establish and promote the institutional structures and linkages—including local-national-regional-global linkages and networks—necessary for achieving policy coherence, cross-sectoral collaboration, and the implementation of holistic and inclusive ecosystem approaches in the fisheries sector with clear roles and responsibilities and defined points of contact in government authorities and agencies for small-scale fishing communities.</p> <p>b. Promote collaboration among their professional associations, including fisheries cooperatives and civil society organizations, through networks and platforms for the exchange of experiences and information, and to facilitate their involvement in policy- and decision-making processes relevant to small-scale fisheries communities.</p> <p>c. Recognize and promote, as appropriate, local governance contributions to effective management of small-scale fisheries, taking into account the ecosystem approach and in accordance with national law.</p> <p>d. Promote enhanced international, regional, and sub-regional cooperation in securing sustainable small-scale fisheries.</p>

LEGAL, POLICY, AND INSTITUTIONAL FRAMEWORK

The Philippines has no comprehensive law that embodies all the concepts and principles of an ecosystem approach to fisheries management. However, there is a growing recognition of this perspective and approach in current policies, plans and programs. The 1987 Philippine Constitution, the Fisheries Code of 1998 (RA 8550), the 1992 National Integrated Protected Areas System Act (RA 7586), and several other special laws have provided platforms for developing integrated fisheries management and coastal resource management approaches which have facilitated the adoption and implementation of ecosystem-based approach to fisheries management concepts. Through Executive Order 533, signed in 2006, integrated coastal management has been adopted by government as the national strategy for the sustainable development of the country’s coastal and marine resources.

The Fisheries Code amendment is consistent with the concept of an ecosystem-based approach to fisheries management and integrated coastal area management in specific natural fishery management areas, appropriately supported by research, technical services and guidance provided by the state. Fisheries Office Order 164, Series 2016 of BFAR is Mainstreaming Ecosystem Approach to Fisheries Management. The order states that by 2020, all BFAR programs shall be developed and implemented following the principles of an ecosystem-based approach, and all BFAR activities shall be consistent with the plan adopted by all stakeholders in their respective fisheries management area.

The authority to establish and manage an MPA is held by three jurisdictions, local government, DENR, and BFAR. Both national government agencies have responsibilities for protecting marine environments.

Laws for protected areas include the National Fisheries Act of 1998 (RA 8550) and the National Integrated Protected Areas System Act of 1992 (RA 7586).

LGUs utilize MPAs as a coastal management and fisheries management tool. Within their regulatory boundaries, LGUs are able to establish sanctuaries, limit access to marine resources, prescribe zones for different uses, and collect taxes or fees associated with the use of the municipal waters. LGUs do not require approval from national government agencies to establish municipal reserves or sanctuaries.

Although there is no specific policy for integrating the LGUs' comprehensive land use plan with the sea/water use plans, some LGUs are now beginning to integrate the two plans, for example in Coron.

The Philippines is involved in several international and regional institutions for coordination and collaboration on fisheries. At the national and subnational level, the management of fishery resources is distributed among several government levels including village, municipal or city governments, BFAR, and DENR. National government agencies, active at both national and regional levels, coordinate and cooperate through specific commissions and councils.

A general operative principle of the LGC is a provision that the LGUs may group themselves, consolidate or coordinate their efforts, services and resources for purposes commonly beneficial to them. Section 76 of the Fisheries Code allows for creation of Integrated Fisheries and Aquatic Resources Management Councils (IFARMCs). The IFARMCs can be created in bays, gulfs, lakes, rivers, and dams bounded by two or more municipalities/cities. The IFARMC serves as the venue for close collaboration among LGUs in the management of contiguous resources to achieve the objectives of integrated fishery resource management.

BFAR and LGUs do not work together in a streamlined fashion, partly due to the autonomy of municipalities. Each LGU can adapt its own system, which may not be compatible with other entities, either at the national or local level. The mayor's will and the organizational level of the individual LGUs are important. However, alignment on fisheries issues between municipalities is currently insufficient.

H. INFORMATION, RESEARCH, AND COMMUNICATION

SSF GUIDELINES OVERVIEW

The SSF Guidelines recognize the need for social, ecological, economic, and cultural information and data to support decision-making on sustainable management of small-scale fisheries (Table 12). Small-scale fisheries are complex social-ecological systems. Improved knowledge of the dynamics of these systems is needed as a foundation for providing appropriate and responsible support and to ensure that informal, indigenous, and customary knowledge, practices, and tenure systems are valued and protected.

Table 12. Information, research, and communication strategies and good practices [adapted from (FAO, 2015)]

19. Improve knowledge of social-ecological systems	
a.	Establish systems of collecting fisheries data, including ecological, social, cultural, and economic data relevant for decision making on sustainable management of small-scale fisheries.
b.	Ensure that the knowledge, culture, traditions, and practices of small-scale fishing communities, including indigenous peoples, are recognized, and as appropriate, supported, and that they inform responsible local governance and sustainable development processes.
c.	Encourage small-scale fisheries research and collaborative and participatory data collection, analyses, and research with funding.

Table 12. Information, research, and communication strategies and good practices [adapted from (FAO, 2015)]

d. Promote research into the conditions of work, including migrant fishers and fish workers, health, education, and decision making, in the context of gender relations, to inform strategies for ensuring equitable benefits for men and women in fisheries.
20. Improve access to information and data needed for decision-making
a. Recognize the importance of communication and information, necessary for effective decision-making.
b. Prevent corruption, particularly through increasing transparency, holding decision makers accountable, and ensuring that impartial decisions are delivered promptly and through appropriate participation and communication with small-scale fishing communities.
c. Recognize small-scale fishing communities as holders, providers, and receivers of knowledge and the need for access to appropriate information to help them cope with existing problems and empower them to improve their livelihoods.
d. Promote the availability, flow, and exchange of information, including on aquatic transboundary resources, through the establishment or use of appropriate existing platforms and networks at community, national, sub-regional, and regional levels, with appropriate approaches, tools, and media for communication with and capacity development for small-scale fishing communities.

LEGAL, POLICY, AND INSTITUTIONAL FRAMEWORK

Information, research, and communication on small-scale fisheries is undertaken through national government agencies and academic and research institutions.

The National Fisheries Research and Development Institute of BFAR plays an important role of fisheries research in the development, management, conservation and protection of the country's fisheries and aquatic resources. The Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development of the Department of Science and Technology formulates policies, plans and programs for science and technology-based research and development and coordinates, evaluates, and monitors the national research and development efforts in the agriculture, aquatic and natural resources sectors.

RA 8550 mandates the Commission on Higher Education, Department of Education, and the Philippine Information Agency to conduct a nationwide information campaign on the provisions of the law and sustainable development, and to promote the development, management, conservation, and proper use of the environment. RA 9003 strengthens the mandate of these institutions to conduct information activities.

Several universities, such as the University of the Philippines – Marine Science Institute (UPMSI), University of the Philippines – Visayas (UPV) and its College of Fisheries, and Silliman University have strong research and teaching programs which integrate social and ecological systems. There are also a number of state colleges and universities doing teaching and research on fisheries. Through the years, a number of fisheries development projects and programs have supported and undertaken information, research and communication on small-scale fisheries.

There is increasing use of the internet and social media by government agencies, LGUs, and NGOs to improve access to information and data for decision-making.

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