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# MAINSTREAMING EAFM PROGRAM

Ecosystems Approach to  
Fisheries Management  
Planning and Implementation Process  
**TOOLKITS**

PHILIPPINES

# TOOLKIT 1

## EAFM Governance Benchmarking:

*Measuring local government units (LGU) capacity for EAFM in the Philippines*



### WHAT IS IT?

EAFM governance benchmarking is a participatory process of self-assessment that enables an LGU to measure its capacity to implement an ecosystem approach to fisheries management. As an ecosystem approach, EAFM tends to be complex. To make it workable, it is best for it to be disaggregated into its practical elements with corresponding expected results. At the national level, EAFM activities may only be limited to policy formulation, enactment of laws, or agreements on number and areas of geographies subject to fisheries management. At the site level, however, EAFM activities and expected results can be more specific.

The purpose of setting the benchmarks is to provide a framework to guide fisheries managers and stakeholders in effectively implementing EAFM by setting guideposts for the progress (levels) in implementing the necessary elements (benchmarks).

### EAFM GOVERNANCE BENCHMARKS

The process uses a set of fifteen (15) EAFM benchmarks that are necessary for EAFM as implemented at a site. For each benchmark, LGU officials and stakeholders score the LGU (on a scale of Level 1 to Level 3), after assessing whether the LGU meets the description of the benchmark at that level. While the process is a self-assessment based on collective perception of governance capacity, the LGU should show supporting documents to prove that it has met the requirement of the benchmark at that level.

EAFM Governance Benchmarks:

1. Management boundaries established
2. Comprehensive fisheries management plan adopted and regularly updated
3. Marine spatial planning to reduce use conflicts
4. Fisheries management office established and operational

5. Fisheries registration and licensing system established
6. Coastal marine habitat management established
7. Fisheries resources established
8. Network of Marine Protected Areas (MPA) established
9. Fisheries Law enforcement team and program established
10. Local constituencies for fisheries management organized and actively involved (fisherfolk, CSOs, private sector)
11. Multi-institutional collaboration on fisheries/coastal resources management
12. Sustainable financing for Fisheries/ CRM
13. Revenue generation established
14. Incentives (disincentives) scheme to change behavior
15. Coastal environment-friendly enterprises established

The general scheme for assessing progress is as follows: Level 1 - initiation at the scale of the LGU; Level 2 - sustainability of the actions in the LGU; Level 3 - expansion of the action ecosystem-wide (inter-LGU and in coordination with BFAR): At Level 1, LGU is at the start-up stage; in Level 2, the LGU is moving towards EAFM; and at Level 3, the LGUs within the FMA are practicing EAFM.

The mode (the score that appears most often) roughly determines that general status of governance capacity. For example: an LGU scores 3 benchmarks at Level 1, 8 at Level 2 and 4 at Level 3. The general score for the LGU is Level 2 because there are 8 benchmarks at Level 2.



### HOW IS IT CONDUCTED?

A. Convene key LGU officials and stakeholders: Mayor, MPDC, MAO, SB Chair for agriculture/fisheries, representatives of stakeholder groups (FARMC, additional sectors not represented in the FARMC). During this meeting, participants are given orientation on how the EAFM governance benchmarking is done.

B. Use of the EAFM Governance Benchmarking scoresheet (Table 1). Participants discuss each benchmark and collectively agree on what level the LGU is at present. When agreement is reached, check the appropriate box. Check the appropriate boxes for all fifteen benchmarks.

C. Collect supporting documents (Table 2) to show that the level has been reached. These documents are also valuable reference materials for the review and updating of the EAFM plan and complementary LGU policies/ ordinances.

### TIPS AND INSIGHTS

- The EAFM governance benchmarking tool is designed to complement the Mainstreaming EAFM Program of BFAR by incentivizing FMA-level planning and management. It links to FishR, BoatR databases, the Malinis at Masaganang Karagatan (MMK) and TARGET incentives programs.
- Self-evaluation is based on perception, and consensus among participating stakeholders. Because of this, the EAFM governance benchmarking scores should not be used to compare across LGUs. The primary purpose of the process is for the LGU to identify the elements for improvement. Comparison across LGUs should be limited to identifying common priorities and explore potential collaboration in developing capacity. Identifying common priorities is especially crucial at Level 3, where LGUs need to work together to manage a common ecosystem-scale management area.
- Experience in conducting benchmarking (e.g. Danajon Bank) shows that when LGUs recognize common areas of improvement, they are more inclined to work together through sharing of resources (e.g. for law enforcement) and complementation (e.g. MPA networking).



### WHEN DO YOU USE IT?

Use the EAFM governance benchmarking for the first time to establish a baseline. The LGU may conduct regular assessment using the tool annually or bi-annually (once every two years) in order to monitor progress. Governance indicators must be ultimately linked to improvements in particular environmental and socioeconomic conditions. Therefore, it is good practice to correlate progress in governance capacity with the status of the fisheries and coastal resources, as well as some key socio-economic indicators.

In the Philippines, biophysical data sets continue to be generated but are underutilized. Where they continue to be useful in providing baseline information and aide in substantiating issues, the flow of information often stops in the planning stage. This is due to several factors: difficulty in accessing the information, lack of perceived need for the information, or lack of technical know-how in utilizing the information as well as updating the information. In addition, utilization of data also terminates at the end of the projects. Linking the biophysical and socio-economic data sets to governance benchmarking ensures that the collection of data feeds back to improve governance capacity.

## FURTHER READING

For more information about measuring governance capacity and examples in the Philippines, check out:

Adriano, Ma. Nina and Diosdado Estimada. 2014. The Effectiveness of the Local Governance Performance Management System (LGPMS) in Improving Governance in the Municipality of San Rafael. *Asia Pacific Journal of Education, Arts, and Sciences* 1(5): 29-38.

Asian Development Bank (ADB). 2006. *Philippines Performance Measurement at the Local Level (Final Report)*. Manila, Philippines: ADB.

Christie, Patrick, David Fluharty, Alan White, Liza Eisma-Osorio, and William Jatulan. 2007. Assessing the feasibility of ecosystem-based fisheries management in tropical contexts. *Marine Policy* 31:239-250.

Department of Interior and Local Government (DILG). 2000. *Local Productivity and Performance Measurement System*. Quezon City, Philippines: DILG.

Department of Interior and Local Government - Bureau of Local Government Supervisions (DILG-BLGS). 2011. Indicator System. Retrieved from <http://www.blgs.gov.ph/lgpmv2/cmshome/index.php?pageID=41&childFlag=1> January 15, 2017.

Department of Interior and Local Government - National Capital Region (DILG-NCR). SGLG (Brochure). Retrieved from [http://lgrc.lga.gov.ph/Media/uploads/NCR\\_resources\\_SGLG.pdf](http://lgrc.lga.gov.ph/Media/uploads/NCR_resources_SGLG.pdf) January 15, 2017.

Department of Interior and Local Government (DILG). 2014. Memorandum Circular No. 2014-39. Retrieved from [http://www.dilg.gov.ph/PDF\\_File/issuances/memo\\_circulars/DILG-Memo\\_Circular-2014326-7960dfc5e3.pdf](http://www.dilg.gov.ph/PDF_File/issuances/memo_circulars/DILG-Memo_Circular-2014326-7960dfc5e3.pdf) January 15, 2017.

ECOGOV - Philippine Environmental Governance Project. 2003. *Developing an index for Measuring Good Environmental Governance of LGUs and DENR*. Manila, Philippines: Development Alternatives, Inc.

Olsen, Stephen and Patrick Christie. 2000. What Are We Learning From Tropical Coastal Management Experiences. *Coastal Management*, 28:5-18.

Olsen, Stephen B. 2002. Assessing Progress Towards Goals of Coastal Management. *Coastal Management* 30:325-345.

Olsen, Stephen B. 2003. Frameworks and Indicators for assessing progress in integrated coastal management initiatives". *Ocean & Coastal Management* 46: 347-361.

Pomeroy, Robert, Len Garces, Michael Pido, Geronimo Silvestre. 2010. Ecosystem-based fisheries management in small-scale tropical marine fisheries: Emerging models of governance arrangements in the Philippines. *Marine Policy* 34: 298-308.

Intergovernmental Oceanographic Commission (IOC). 2006. *A Handbook for Measuring the Progress and Outcomes of Integrated Coastal and Ocean Management*. IOC Manuals and Guides, 46; ICAM Dossier, 2. Paris: UNESCO. (English).

**TABLE 1. EAFM GOVERNANCE BENCHMARKING SCORESHEET**

GOVERNANCE BENCHMARK		LEVEL 1 INITIATED AT LGU	LEVEL 2 SUSTAINED AT LGU	LEVEL 3 EXPANDED ECOSYSTEM-WIDE (INTER-LGU)
1	Management boundaries established	LGU municipal waters delineated (map/chart prepared by NAMRIA)	Formal agreements on municipal waters boundary delineation with contiguous LGUs	Appropriate ecosystem-scale management boundaries established (fisheries management area; inter-LGU+BFAR)
2	Comprehensive fisheries management plan adopted and regularly updated	Comprehensive fisheries/coastal management plan developed and adopted for LGU (with corresponding legal and policy instrument)	Comprehensive fisheries/ coastal management plan implemented (with initial budget, implementation plan, etc)	EAFM plan for FMA adopted and implemented (inter-LGU+BFAR)
3	Marine spatial planning to reduce use conflicts	Fisheries and other uses identified and zoning plan developed	Fisheries use zoning plan implemented (with corresponding legal or policy instrument) and monitored	Fisheries use zoning plan improved, sustained and objectives attained (e.g. conflict reduced)
4	Fisheries management office established and operational	Fisheries/CRM officer in LGU designated (by EO or ordinance) with clear mandate, staff and logistical support	Fisheries/CRM office established (by ordinance), with regular staff and budget.	Inter-LGU (+BFAR) alliance, council, etc. established to cover FMA
5	Fisheries registration and licensing system established	Fishers, boats and fishing gears registration (using FishR and BoatR) and licensing system established (ordinance)	Fishers, boats, and fishing gears registration and licensing system implemented and enforced within LGU; may include reciprocation arrangements with contiguous LGUs	Registration and licensing system used to regulate fishing effort at FMA-scale (towards right-sizing)
6	Coastal marine habitat management established	Coastal marine habitat baseline assessment conducted and habitat profile developed	Coastal marine habitat monitoring conducted regularly and appropriate management actions implemented	FMA-scale habitat monitoring and management (as part of EAFM Plan)
7	Fisheries resources established	Fisheries baseline assessment conducted and fisheries profile developed	Fisheries monitoring conducted regularly and feedback to stakeholders and resource users; appropriate species- and/or gear-specific management actions implemented	FMA-scale fisheries monitoring and management (as part of EAFM Plan)
8	Network of Marine Protected Areas (MPA) established	Individual MPA or MPAs established, baseline data collected, MPA management plan implemented, and monitoring system established	Individual MPA or MPAs sustained and MPA network arrangements established	MPA network arrangements implemented, enforced and sustained (as part of EAFM Plan)
9	Fisheries law enforcement team and program established	Fisheries law enforcement team and law enforcement program established	Fisheries enforcement operations regularly conducted (with operation plan) and enforcement database established	Collaborative enforcement with LGU alliance/ inter-LGU/inter-agency FLE task force; FMA-wide
10	Local constituencies for fisheries management organized and actively involved (fisherfolk, CSOs, private sector)	Local constituencies for fisheries management engaged in consultations/ planning; FARMC established	Local constituencies for fisheries/coastal management actively participating in management planning and implementation	Local constituencies for fisheries management expanded and organized FMA-wide; actively participating in EAFM planning and implementation

GOVERNANCE BENCHMARK		LEVEL 1 INITIATED AT LGU	LEVEL 2 SUSTAINED AT LGU	LEVEL 3 EXPANDED ECOSYSTEM-WIDE (INTER-LGU)
11	Multi-institutional collaboration on fisheries/ coastal resources management	LGU engagement with other agencies (BFAR, DENR, etc) re comprehensive F/CRM (e.g TWG)	Formalized LGU engagement with other agencies and contiguous LGUs (with regular budget support, joint programs)	Multi-institutional collaboration on CFRM sustained (formalized as alliance, council, etc) with budget, staff, M&E
12	Sustainable financing for Fisheries/ CRM	LGU budget dedicated for F/CRM (any amount)	Business plan (budget+ other revenues) to fund implementation of EAFM plan at LGU level	Business plan (with sharing of budget and revenues) to implement EAFM plan at FMA-scale
13	Revenue generation established	Revenue generation system on CRM/fisheries management initiated (any amount)	Revenue-generating measures effectively implemented and enforced (based on resource rent)	Revenue-generating measures sustained to support implementation of EAFM plan (FMA-scale)
14	Incentives (disincentives) scheme to change behavior	Incentives/disincentives scheme initiated (awards, rewards, fees and charges to provide incentive to desired behavior or disincentive to reduce undesired behavior)	Incentives/disincentives scheme established and showing positive results (verifiable behavior change)	Incentive/disincentive scheme adapted FMA-wide and showing positive results (verifiable behavior change)
15	Environment-friendly enterprises established	Environment-friendly enterprises initiated (any)	Environment-friendly enterprises established and showing positive results in reducing fishing pressure and/or increasing 'incomes' at LGU level.	Environment-friendly enterprises established and showing positive results at FMA-scale.

TABLE 2. LIST OF SUPPORTING DOCUMENTS

GOVERNANCE BENCHMARK		SUPPORTING DOCUMENTS		
		LEVEL 1 INITIATED AT LGU	LEVEL 2 SUSTAINED AT LGU	LEVEL 3 EXPANDED ECOSYSTEM-WIDE (INTER-LGU)
1	Management boundaries established	<ul style="list-style-type: none"> <li>✓ NAMRIA chart/map of municipal water boundaries (initial)</li> <li>✓ Proof of validation – report on the results of validation</li> </ul>	<ul style="list-style-type: none"> <li>✓ MOA/Resolution/Policy instrument with contiguous municipalities</li> <li>✓ Markers/Documents on agreed coastal terminal points</li> <li>✓ Ordinance adopting NAMRIA proposed municipal waters, reflecting agreements with contiguous municipalities</li> <li>✓ NAMRIA certified map of municipal waters</li> </ul>	<ul style="list-style-type: none"> <li>✓ MOA with contiguous municipalities in the FMA establishing the fisheries management area</li> <li>✓ Concurrence/ acknowledgement by BFAR of expanding the FMA to include areas beyond municipal waters for relevant pelagic fisheries</li> </ul>
2	Comprehensive fisheries management plan adopted and regularly updated	<ul style="list-style-type: none"> <li>✓ Report on results of initial start-up workshops identifying early management interventions with action plan</li> <li>✓ EO, other instruments implementing early management interventions and providing personnel/ funds</li> </ul>	<ul style="list-style-type: none"> <li>✓ FARMC endorsement</li> <li>✓ EO/ resolution adopting and fisheries management plan</li> <li>✓ Municipal ordinance providing regular budget for the implementation of the plan</li> </ul>	<ul style="list-style-type: none"> <li>✓ Inter-LGU EAFM plan for the agreed fisheries management area adopted through inter-LGU MOU, supported by municipal resolutions</li> <li>✓ EAFM plan management actions incorporated into LGU fisheries/ CRM plan with budget for implementation</li> </ul>
3	Marine spatial planning to reduce use conflicts	<ul style="list-style-type: none"> <li>✓ Interaction matrix of activities in the coastal zone of the LGU</li> <li>✓ Proposed zones with corresponding rules on activities allowed/ prohibited.</li> <li>✓ Studies, charts/maps supporting the decisions on zoning</li> </ul>	<ul style="list-style-type: none"> <li>✓ FARMC endorsement</li> <li>✓ Ordinance adopting zoning</li> <li>✓ Monitoring of compliance with zoning; records of conflicts and how these were resolved</li> </ul>	<ul style="list-style-type: none"> <li>✓ Expansion/ complementation of LGU zoning to marine spatial plan for the entire FMA</li> <li>✓ Updating of LGU zoning plans to conform with the MSP for the FMA, with corresponding ordinance adopting the changes</li> </ul>
4	Fisheries management office established and operational	<ul style="list-style-type: none"> <li>✓ EO or other instruments creating the office and appointment of fisheries technician/ CRM staff</li> </ul>	<ul style="list-style-type: none"> <li>✓ EO or instruments (MOA, MOU) creating linkages with other units in the LGU</li> <li>✓ Training documents for staff and other personnel</li> <li>✓ Ordinance providing regular budget for the operation of the office</li> </ul>	<ul style="list-style-type: none"> <li>✓ Action plans, program documents (MOA, MOU) that show leveraged support from partners (including NGAs, donor projects, CSOs, etc)</li> </ul>
5	Fisheries registration and licensing system established	<ul style="list-style-type: none"> <li>✓ Updated records of FishR and BoatR for the LGU</li> <li>✓ Ordinance establishing a licensing system that uses the registration database</li> <li>✓ Documentation of back-up system in place</li> </ul>	<ul style="list-style-type: none"> <li>✓ Database of licenses issued, fees collected linked to registration system</li> <li>✓ Records of reciprocal arrangements with contiguous LGUs (where applicable)</li> </ul>	<ul style="list-style-type: none"> <li>✓ Documentation showing that registration and licensing are linked to monitoring and management of fisheries resources/ habitats</li> <li>✓ Report on the result of monitoring and evaluation of registration and licensing</li> <li>✓ EO or legal instrument establishing limits to licenses issued based on results of the biophysical and compliance monitoring</li> </ul>

GOVERNANCE BENCHMARK		SUPPORTING DOCUMENTS		
		LEVEL 1 INITIATED AT LGU	LEVEL 2 SUSTAINED AT LGU	LEVEL 3 EXPANDED ECOSYSTEM-WIDE (INTER-LGU)
6	Coastal marine habitat management established	<ul style="list-style-type: none"> <li>✓ Habitat (mangrove, seagrass, corals) profile (usually with MAO or MENRO)</li> <li>✓ Report on Participatory Coastal Resources Assessment - PCRA (Academe, projects, NGOs)</li> <li>✓ Report on coastal habitats assessment</li> <li>✓ Report/documentation on results of initial consultations/ workshop to assess status of coastal marine habitats – resources map, issues identification and prioritization</li> </ul>	<ul style="list-style-type: none"> <li>✓ Report on Habitat monitoring with results compared to baseline</li> <li>✓ Report on PCRA (monitoring event)</li> <li>✓ Adoption of management actions to address priority issues related to habitat management (may be part of LGU Start-up Plan)</li> </ul>	<ul style="list-style-type: none"> <li>✓ Expansion/ complementation of habitat monitoring for the entire FMA</li> <li>✓ Adoption of management actions to address priority issues related to habitat management (may be part of Inter-LGU EAFM plan)</li> </ul>
7	Fisheries resources management established	<ul style="list-style-type: none"> <li>✓ Fisheries profile (past and present)</li> <li>✓ Documentation/Report on the results of fish landing survey, gear and vessel inventory</li> <li>✓ Report on the results of initial consultations/ workshop to assess status of fisheries resources – users map, issues identification and prioritization</li> </ul>	<ul style="list-style-type: none"> <li>✓ Report of the results of fish landing/fisheries survey with comparison to past/baseline data (monitoring event) and presented to stakeholders</li> <li>✓ Adoption of management actions to address priority issues (may be part of Start-up Plan)</li> </ul>	<ul style="list-style-type: none"> <li>✓ Expansion/ complementation of fisheries monitoring for the entire FMA</li> <li>✓ Adoption of management actions to address priority issues related to fisheries (may be part of Inter-LGU EAFM plan)</li> </ul>
8	Network of Marine Protected Areas (MPA) established	<ul style="list-style-type: none"> <li>✓ Reports /documents - habitat and fish assessment, enforcement protocol, MPA management plan</li> <li>✓ Training of MPA Management Committee, office, council</li> <li>✓ Ordinance establishing individual MPAs</li> <li>✓ MEAT and SEAT assessment reports</li> </ul>	<ul style="list-style-type: none"> <li>✓ Common framework for management of MPAs in the LGU (Ordinance/EO/MOU/MOA creating an MPA Network management office or committee or unit overseeing all the MPAs)</li> <li>✓ Documentation of continuous enforcement activities in individual MPAs</li> </ul>	<ul style="list-style-type: none"> <li>✓ Multi-year management plan covering network of MPAs across LGUs in the FMA</li> <li>✓ MEAT and SEAT assessment report</li> <li>✓ Documentation of regular activities of the MPA network</li> </ul>
9	Fisheries law enforcement team and program established	<ul style="list-style-type: none"> <li>✓ EO or ordinance creating the law enforcement team (contains list of team members, assets and operating budget)</li> <li>✓ Oplan, program, protocol</li> <li>✓ Documentation of assets and budget</li> <li>✓ Training on basic FLE operations of a law enforcement team</li> </ul>	<ul style="list-style-type: none"> <li>✓ Report on the updating of Oplan for FLE</li> <li>✓ Record books/database containing information on enforcement operations</li> <li>✓ Documentation of coordination with other enforcement agencies</li> </ul>	<ul style="list-style-type: none"> <li>✓ Ordinances (preferably) to establish and support continuous operation of inter-LGU law enforcement team</li> <li>✓ Documentation of joint enforcement operations with other local government units</li> <li>✓ Training on advanced FLE operations</li> </ul>

GOVERNANCE BENCHMARK		SUPPORTING DOCUMENTS		
		LEVEL 1 INITIATED AT LGU	LEVEL 2 SUSTAINED AT LGU	LEVEL 3 EXPANDED ECOSYSTEM-WIDE (INTER-LGU)
10	Local constituencies for fisheries management organized and actively involved (fisherfolk, CSOs, private sector)	<ul style="list-style-type: none"> <li>✓ Proof of establishment of FARMC, POs (DOLE Certification, SEC Registration, DSWD Certification, LGU Certification)</li> </ul>	<ul style="list-style-type: none"> <li>✓ Document of participation in review/ approval /endorsement of fisheries management plans/ ordinances</li> <li>✓ Documentation on the participation in implementation and monitoring evaluation of management plans</li> </ul>	<ul style="list-style-type: none"> <li>✓ Local constituencies for fisheries management expanded and organized FMA-wide (federation of POs/ baywide or FMA-wide FARMCs;</li> <li>✓ Record books, database and financial statements (excellent financial standing) for the past 5 years</li> </ul>
11	Multi-institutional collaboration on fisheries/ coastal resources management	<ul style="list-style-type: none"> <li>✓ Inter-LGU MOAs/MOUs</li> <li>✓ Inter-agency MOAs/MOUs</li> <li>✓ Ordinances, Resolutions</li> </ul>	<ul style="list-style-type: none"> <li>✓ Program documents showing inter-LGU, inter-agency cooperation; action plans</li> <li>✓ Documentation of coordinated implementation, enforcement and monitoring of CFRM activities</li> <li>✓ Inter-LGU Oplan, Inter-agency Oplan</li> </ul>	<ul style="list-style-type: none"> <li>✓ Multi-year action plans and other documents to show sustained collaboration across LGUs and agencies in the FMA</li> <li>✓ Updated/revised action plans to implement the inter-LGU EAFM Plan according to jurisdiction and agency mandates</li> <li>✓ Database, record books of operations and other activities</li> <li>✓ Budgetary contribution/ leverage</li> </ul>
12	Sustainable financing for Fisheries/ CRM	<ul style="list-style-type: none"> <li>✓ Report on the result of various consultations to assessment of revenue generating programs and new or improved schemes identified</li> <li>✓ Ordinance, other legal instruments providing budget for implementing management actions (in Start-up Plan)</li> </ul>	<ul style="list-style-type: none"> <li>✓ Business plan (budget+ other revenues) to fund implementation of Start-up plan at LGU level</li> </ul>	<ul style="list-style-type: none"> <li>✓ Business plan (with sharing of budget and revenues) to implement EAFM plan at FMA-scale incorporated in the Annual Investment Plans of the period covered</li> </ul>
13	Revenue generation established	<ul style="list-style-type: none"> <li>✓ Report on the result of various consultations to identify sources of revenue, and new or improved schemes</li> <li>✓ Ordinance, other legal instruments establishing revenue generating programs for LGUs with specific use of funds for fisheries management incorporated</li> </ul>	<ul style="list-style-type: none"> <li>✓ Implementation plan, revenue collection and disbursement protocols for identified revenue sources</li> <li>✓ Record books and other documents supporting implementation and operation of the revenue-generating schemes</li> </ul>	<ul style="list-style-type: none"> <li>✓ Record books and other documents supporting implementation and operation of the revenue-generating scheme (five years)</li> <li>✓ Business Plan with fisheries management activities funded through the generated revenue as reflected in the Annual Investment Plan</li> <li>✓ Documents supporting the funding of management actions under the inter-LGU EAFM Plan through the generated revenues</li> </ul>

GOVERNANCE BENCHMARK		SUPPORTING DOCUMENTS		
		LEVEL 1 INITIATED AT LGU	LEVEL 2 SUSTAINED AT LGU	LEVEL 3 EXPANDED ECOSYSTEM-WIDE (INTER-LGU)
14	Incentives (disincentives) scheme to change behavior	<ul style="list-style-type: none"> <li>✓ Ordinance establishing incentives/disincentives scheme initiated (awards, rewards, fees and charges to provide incentive to desired behavior or disincentive to reduce undesired behavior)</li> </ul>	<ul style="list-style-type: none"> <li>✓ Ordinance establishing incentives/disincentives scheme approved and implemented</li> <li>✓ Studies/ surveys on behavioral change as a result of the incentives system</li> </ul>	<ul style="list-style-type: none"> <li>✓ Incentive/disincentive scheme adopted FMA-wide</li> <li>✓ Studies/ surveys on behavioral change as a result of the expanded incentives system</li> </ul>
15	Coastal environment-friendly enterprises established	<ul style="list-style-type: none"> <li>✓ Report on the result of various consultations (scoping) to identify alternative and supplemental livelihoods</li> <li>✓ Socio-economic profile</li> <li>✓ MOA/ award/ grants establishing enterprises by the local government or by community partners as supported by the LGU</li> </ul>	<ul style="list-style-type: none"> <li>✓ Implementation plan, revenue collection and disbursement protocols</li> <li>✓ Environmental mitigation and monitoring plans</li> <li>✓ Record books and other documents supporting implementation of enterprises and employment records showing fisherfolk involved in the enterprise development</li> </ul>	<ul style="list-style-type: none"> <li>✓ Record books and other documents supporting implementation and operation of the enterprise (five years) across LGUs in the FMA</li> <li>✓ Monitoring and evaluation report on the progress of the enterprises measuring benefits to organized fisherfolk</li> <li>✓ Financial statements, record books</li> <li>✓ Studies/ surveys on perception, attitudes and behavioral change as a result of the environment-friendly enterprise</li> <li>✓ Assessment report of the EMMP</li> </ul>

## TOOLKIT 2

# Review of Municipal Fisheries Ordinance (MFO)



### WHAT IS IT?

Many LGUs have existing municipal fisheries ordinances. When the Fisheries Code was revised in 2015, most (if not all) of these ordinances require updating to be consistent with national law. This tool helps the LGU make a comprehensive assessment of what needs to be updated or added. The tool is especially helpful for LGUs that are drafting their MFO for the first time.

The tool is primarily to assess the existing ordinance or to prepare for drafting of a new ordinance. The assessment is a pre-requisite to the actual drafting of the MFO.

### REVISED FISHERIES CODE (RA NO. 10654)

Republic Act No. 10654, entitled “An Act to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing, Amending R.A. No. 8550, otherwise known as The Philippine Fisheries Code of 1998,” was enacted by Philippine Congress on December 1, 2014 and lapsed into law on February 27, 2015 without the signature of the President, in accordance with Art. VI, Sec. 27(1), Constitution. The law took effect on March 23, 2015 after its publication.

Department Administrative Order No. 10, s. 2015 or the Implementing Rules and Regulations (IRR) of R.A. No. 8550, as amended by R.A. No. 10654, was prepared by a Multi-Sectoral Drafting Committee convened by BFAR, and was signed by the Secretary of Agriculture on September 23, 2015. The IRR, after its publication on 25 September 2015, took effect on 10 October 2015.

Republic Act No. 10654 amended certain sections of, and also added new provisions to R.A. No. 8550. As a result, the Philippine Fisheries Code is now a combination of:

- original sections of R.A. No. 8550 that were not changed;
- amended sections of R.A. No. 8550 (the changes introduced by R.A. No. 10654 replaced the original text); and
- new sections/ provisions inserted by R.A. No. 10654.

Note that the ordering of sections still follows that of R.A. No. 8550, except that there is renumbering in some parts as a result of the insertion of new provisions.

The Implementing Rules and Regulations (IRR) of the Fisheries Code (DAO 10, s. 2015) is now integrated, taking into consideration both laws. All regulations (Fisheries Administrative Orders) issued by DA-BFAR implementing R.A. No. 8550 remain in effect, unless explicitly or impliedly superseded.

What are the significant changes introduced by R.A. No. 10654?

1. Regulatory mechanisms to address illegal, unreported and unregulated (IUU) fishing

- a) Penalties for engaging in IUU fishing
- b) Reportorial requirements for fish catch
- c) Deployment of Fisheries Observer
- d) Adoption of a Monitoring, Control and Surveillance and Traceability System for Municipal Fishing Vessel
- e) Implementation of Boarding and Inspection Protocols
- f) Implementation of Vessel Monitoring Measures and Vessel Monitoring System
- g) Adoption and Implementation of Port State Measures
- h) Trade-Related Measures on IUU Fishing-Derived Products

2. Improved enforcement against violations of the Fisheries Code

- a) Imposition of Stiffer Penalties based on Gross Tonnage of the Fishing Vessels
- b) Identification of Serious Violations and Accompanying Administrative Sanctions
- c) Introduction of Community Service as Penalty
- d) Lien on Property
- e) Citizen's Suit and SLAPP

3. Modification of some regulated/ prohibited acts

- a) Amended Definition of Active Fishing Gear
- b) Clarification on Use of Active Gear by Authorized Small-Scale Commercial Fishing in Municipal Waters
- c) Superlights and Fishing Light Attractors

4. Administrative penalties and adjudication of violations

- a) Administrative adjudication in general
- b) Administrative Adjudication Committee
- c) Hearing and Deciding Administrative Cases
- d) Offer to Settle
- e) Powers of BFAR in relation to adjudication

5. Broadening options for harvest control

6. Recognition of and alignment with international agreements

7. Adoption of precautionary and ecosystem-based management approaches

8. Fisheries Management Fund

How is the review of the MFO conducted?

A. Convene meeting with Mayor, MPDC, MAO, SB Chair of Agriculture/ Fisheries, FARMC, other stakeholders not represented in the FARMC. In this meeting, discuss:

- Status of implementation of existing MFO, if any
- Priority issues and problems to be addressed in a new/ revised MFO

B. Go over checklist of components of an MFO to identify sections relevant to the LGU, and check appropriate box if the sections are or are not in the current MFO, and if the section needs updating if it is in the existing MFO.

Table 1. Checklist of components of the municipal fisheries ordinance

KEY SECTIONS IN MFO		IN EXISTING MFO?		NEEDS UPDATE
SUBJECT	CONTENT / REMARKS	Y	N	
Municipal waters	<ul style="list-style-type: none"> <li>• Technical description of boundaries provided by NAMRIA</li> </ul>			
	<ul style="list-style-type: none"> <li>• <i>Note: Agreement of contiguous LGUs?</i></li> </ul>			
Water use zones (MSP)	<ul style="list-style-type: none"> <li>• Technical description and chart/map of proposed zones, with corresponding list of activities allowed/ not allowed in each zone</li> </ul>			
	<ul style="list-style-type: none"> <li>• <i>Note: Needs technical study to establish appropriate zones for MPAs, fixed and mobile fishing activities, other uses (e.g. ecotourism, navigation) including interaction matrix</i></li> </ul>			

KEY SECTIONS IN MFO		IN EXISTING MFO?		NEEDS UPDATE
SUBJECT	CONTENT / REMARKS	Y	N	
	<ul style="list-style-type: none"> <li>Note: this requires consultation and consensus of stakeholders re boundaries and regulations</li> </ul>			
Registry of municipal fishers	<ul style="list-style-type: none"> <li>Registration system linked to BFAR FishR and BoatR databases</li> </ul>			
Licensing system	<ul style="list-style-type: none"> <li>Note: that registration and licensing are different and separate. Registration is a right of qualified fishers; Licensing is a privilege and may be restricted by type, area, duration, and subject to payment of fees</li> </ul>			
	<ul style="list-style-type: none"> <li>Rules and procedure for the preferential grant of fishing licenses / exclusive fishery privileges to municipal fishers and their POs</li> </ul>			
	<ul style="list-style-type: none"> <li>Color-coding and numbering of licensed municipal fishing vessels</li> </ul>			
License fees and other user fees	<ul style="list-style-type: none"> <li>License fees for various fishing activities</li> </ul>			
	<ul style="list-style-type: none"> <li>Auxiliary invoice for transport of fishery products</li> </ul>			
	<ul style="list-style-type: none"> <li>User fees for docking, anchoring, etc</li> </ul>			
	<ul style="list-style-type: none"> <li>User fees for non-harvest access to MPAs (e.g. snorkeling, diving)</li> </ul>			
	<ul style="list-style-type: none"> <li>User fees for development activities in the coastal area (e.g. resorts)</li> </ul>			
	<ul style="list-style-type: none"> <li>Note: many LGUs include the user fees in the municipal revenue ordinance/ code; ensure consistency</li> </ul>			
Regulation of fishing activities	<ul style="list-style-type: none"> <li>Prohibited acts (not included in the Revised Fisheries Code) with corresponding penalties</li> </ul>			
	<ul style="list-style-type: none"> <li>Regulation of fishing activities that require supplemental LGU legislation (e.g. regulation of fishing light attractors, small commercial fishing boat operation in</li> </ul>			

KEY SECTIONS IN MFO		IN EXISTING MFO?		NEEDS UPDATE
SUBJECT	CONTENT / REMARKS	Y	N	
	municipal waters beyond 10km, use of fine mesh nets for specific fisheries species, closed seasons)			
Administrative adjudication	<ul style="list-style-type: none"> <li>Note: for violation of MFO</li> <li>Note: Aligned with administrative adjudication of BFAR under the Revised Fisheries Code</li> </ul>			
Habitat management	<ul style="list-style-type: none"> <li>Protection/ rehabilitation of coral reefs, seagrass beds, mangrove areas, soft bottom habitats not included in MPAs</li> </ul>			
	<ul style="list-style-type: none"> <li>Regulation of coastal pollution (from land-based activities)</li> </ul>			
	<ul style="list-style-type: none"> <li>Regulation of sand mining/ quarrying in rivers that drain into the coastal area (licensing is under the jurisdiction of province/city, but municipality can regulate through zoning, mitigating measures to prevent erosion/ siltation)</li> </ul>			
	<ul style="list-style-type: none"> <li>Establishment of MPA network based on ecological connectivity</li> </ul>			
Institutional arrangements	<ul style="list-style-type: none"> <li>Creation of an advisory council complementing FARMC</li> </ul>			
	<ul style="list-style-type: none"> <li>Creation/ designation of CRM office/ officers</li> </ul>			
	<ul style="list-style-type: none"> <li>Establishment of bantay-dagat, including mandatory training, deputation, accountability</li> </ul>			
	<ul style="list-style-type: none"> <li>Granting authority Mayor to enter into inter-LGU agreement with contiguous LGUs to establish an ecosystem-scale management area, prepare and implement an EAFM plan, create a multi-agency FLE team, and contribute funds and other resources for the implementation of the EAFM plan</li> </ul>			
Appropriations (budget)	<ul style="list-style-type: none"> <li>Appropriating regular budget for operations of the CRM office, bantay dagat and implementation of LGU CRM/ inter-LGU EAFM plans.</li> </ul>			

C. Identify and collect information/ data needed to develop regulations/ actions to address identified priority issues and problems. Note that these may already be in existing planning documents such as: CLUP, CRM plan, etc.

D. Based on the information/ data collected, discuss and agree on the regulations/ actions. This may require a series of consultations/ meetings. Translating the agreement into proper legislative language may require the assistance of a lawyer/ expert.

## TIPS AND INSIGHTS

Table 2. Examples of MFO provisions

SUBJECT	SAMPLE TEXT	REMARKS
Municipal waters	Pursuant to the Local Government Code of 1991 and the Fisheries Code, the municipal waters of this Municipality shall be within the geographic coordinates in the technical description and corresponding chart attached as Annex "A" as determined by the National Mapping and Resource Information Authority (NAMRIA), for purposes of management and law enforcement, and without prejudice to the settlement of boundary disputes with contiguous LGUs: xxx	<ul style="list-style-type: none"> <li>This sample provision takes into account that the LGU may still be in negotiation with its neighbors re boundaries. The pendency of negotiations should not be a bar to defining the municipal waters (provisionally) for purposes of enforcement. The effect is that the areas still under negotiation will have overlaps in jurisdiction.</li> </ul>
Registry of municipal Fisherfolk	<p>The Municipality shall maintain a registry of municipal fisherfolk for the purpose of determining priorities among them, of regulating and limiting entry into the municipal waters, and of monitoring fishing activities and/or other related purpose. The registry shall follow the procedure and shall be linked to the national database of municipal fisherfolk, municipal fishing vessels and gear of the Bureau of Fisheries and Aquatic Resources (BFAR).</p> <p>The list or registry shall be updated annually or as often as maybe necessary, and shall be posted in barangay halls or other strategic locations where it shall</p>	<ul style="list-style-type: none"> <li>The municipal registry is linked to BFAR's FishR and BoatR databases. This ensures that the registered fisherfolk are recognized by the national government and are eligible for programs and assistance that are based on the national registry (e.g. identification of beneficiaries of BFAR's livelihood assistance is based on FishR, eligibility of LGUs for BFAR incentives is based on compliance with FishR and BoatR)</li> </ul>

SUBJECT	SAMPLE TEXT	REMARKS
	be open to the public for the purpose of validating the correctness and completeness of the list. Provided, however, that the Municipality in consultation with MFARMC shall formulate the necessary mechanisms for inclusion or exclusion procedures that shall be most beneficial to the municipal fisherfolk.	
Regulation of 'danggit' (siganid) harvesting	<p>Regulation on the Catching of Siganid, Locally Known as "Danggit" or "Bararawan". – The catching of siganid species shall be governed by the following rules:</p> <p>a) The catching, gathering and selling of siganid fry, locally known as "kuyug" is prohibited.</p> <p>b) The catching and gathering of siganid species locally known as "danggit" or "bararawan" during the closed season from the third, fourth and fifth day after the new moon of every month; Provided, that if the gathering of matured "danggit" and "bararawan" that are already enclosed in the fish corral during the prohibited period is unavoidable, such gathering shall not be done before seven-thirty in the morning (7:30 a.m.).</p> <p>c) The use of "3-ply" net with mesh size smaller than #7 is prohibited.</p> <p>d) Towing of nets for catching siganids is prohibited.</p>	<ul style="list-style-type: none"> <li>Science-based regulation taking into account the spawning period of danggit. The closed season may be year-round or limited to the peak months (may be site specific)</li> </ul>
Regulation of use of compressors	The use of compressors for fishing is prohibited. Provided, that, operators of fish cages may be allowed to use air compressors for feeding in the designated cages, subject to registration of compressors and prohibition of its	<ul style="list-style-type: none"> <li>Use of compressors is not regulated under the Fisheries Code, the LGU may ban or regulate depending on the common practice in the area.</li> </ul>

SUBJECT	SAMPLE TEXT	REMARKS
	transfer to other locations or use. The operator or air compressor shall undergo an orientation on safety and health dangers of using air compressors prior to the issuance of permit for the air compressor.	
Regulation of 'basnig'	<p>Regulation of basnig (liftnet) operation for catching dilis (anchovies) and pusit (squid). - The operation of basnig (liftnet) below three (3) GT in municipal waters is allowed for the purpose of catching dilis (anchovies) only. In order to ensure sustainability of the anchovy stocks, the number of basnig vessels that may be licensed shall be limited to twenty-five (25) only. Provided, that no person may be given more than one (1) license. Provided further, that the number of basnig vessel licenses may be increased upon showing that the average daily catch of existing operators is greater than 20 balde, and that the anchovy stocks have not been depleted.</p> <p>“Basnig” of up to five (5) gross tons capacity for catching “dilis” (anchovy species) and “pusit” (squid), shall be allowed to operate within ten point one (10.1) to fifteen (15) kilometer area from the shoreline in municipal waters as defined herein with the boundaries and depth of such allowable areas for commercial fishing.</p> <p>Consistent with the Fisheries Code (Sec. 93) and its Implementing Rules and Regulations (Rule 93.1(2)), the use of nets with mesh size of up to #21 is allowed for catching dilis and/or pusit. Provided, that the operator shall take measures to ensure that no juveniles of other species are caught using the fine mesh net.</p>	<ul style="list-style-type: none"> <li>This provision was passed by Coron, Palawan after consultations with basnig operators. The operators themselves proposed the limits. The appropriateness of the limits were confirmed by scientific studies.</li> <li>Note that the regulation is very detailed - this is based on actual practice, which may be site specific (it may not be applicable to other areas). The important thing to consider is the regulation should be realistic and grounded on actual practice, must be a consensus decision, and must be supported by science.</li> </ul>

SUBJECT	SAMPLE TEXT	REMARKS
	Each basnig vessel shall use no more than eight (8) light bulbs (compact fluorescent or light emitting diode) for its operation.	
User fees for coastal development	<i>CRM Fee for Commercial Establishments.</i> Commercial establishments and resorts shall pay annually P25.00 per square meter of commercial space as environmental fee to contribute to the conservation and protection of the coastal and marine resources, which is the backbone of the local economy.	<ul style="list-style-type: none"> <li>This provision (Coron) takes into consideration multi-storey developments - it is not based on land area, but on developed commercial space.</li> </ul>
Procedure for user fee collection	Upon recommendation of the [Council] and approval of the Mayor, the fees herein may be increased annually at a maximum of 10%, without need for new legislation. The Fees under [A, B and C] above may also be collected by accredited resorts provided they purchase pre-paid passes from the [CRMO].	<ul style="list-style-type: none"> <li>User fee collection should be easy to encourage compliance.</li> </ul>



#### WHEN DO YOU USE IT?

This tool is useful for assessing whether the existing MFO is consistent with the Revised Fisheries Code. It is also helpful in identifying priorities in drafting/ updating a municipal fisheries ordinance. However, it does not provide sufficient guidance for actually writing the MFO.

Drafting an MFO requires extensive consultations. Certain subjects (e.g. zoning, species- or gear-specific regulations, and user fees) studies prior to drafting the relevant provisions. The LGU may also need the guidance of an expert in accurately translating its intent to proper legislative language.



- Where the activities intersect, the nature of their interaction is indicated as positive, negative, or neutral, after deliberation by the participants. A positive interaction occurs between two activities when both activities mutually benefit from the interaction, or complement each other. An example could be fisheries and scientific research, e.g. stock assessment studies. While the researchers can obtain more accurate and exhaustive data by working closely with the fishers, the fishing sector will likewise benefit from the research results towards making better-informed decisions in the management and sustainable use of their fisheries resources. Another example is between conservation-related activities (i.e. MPAs) and regulated tourism. In contrast, a negative interaction occurs when two distinct sea uses occurring in the same area can lead to harmful effects to either one or both uses. Among fishing activities, a common example of a negative interaction is between dragged gears (e.g. trawls, seines) and set fishing gears (e.g. fish pots, bottom gillnets). A third type of interaction, neutral interaction, may be assigned when no clear or observable positive or negative effects are determined between the interaction. Therefore, the participants may allow both activities to be conducted in the same general area.

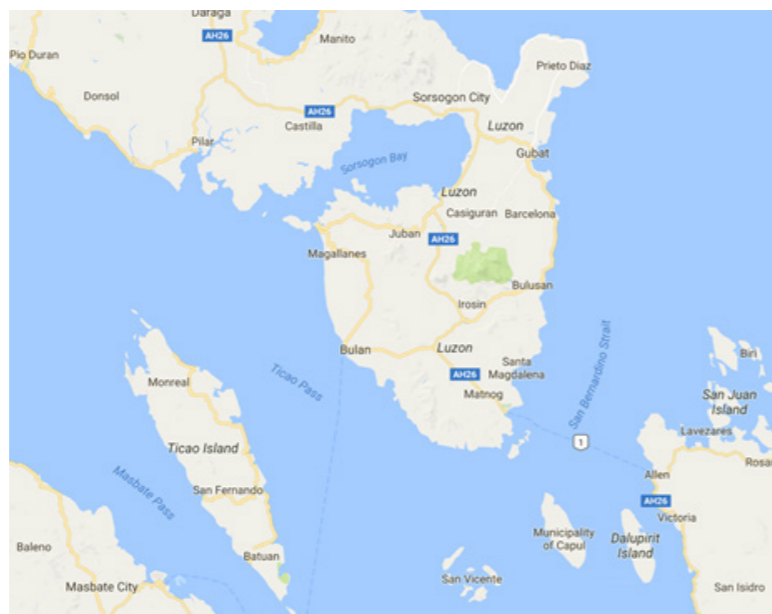
- The boxes where the activities intersect are color-coded: red = negative; green = positive; yellow = neutral (see sample output below).

### B. Conflict mapping

- Choose a base map to use. Conflict mapping can be done by individual LGU or by using a map/ chart of the fisheries management area (inter-LGU, ecological scale). The advantage of using the FMA-scale map is that conflicts across LGUs can easily be noted.

- Base maps can be taken from Google maps, NAMRIA charts or hand-drawn (from community mapping exercise).

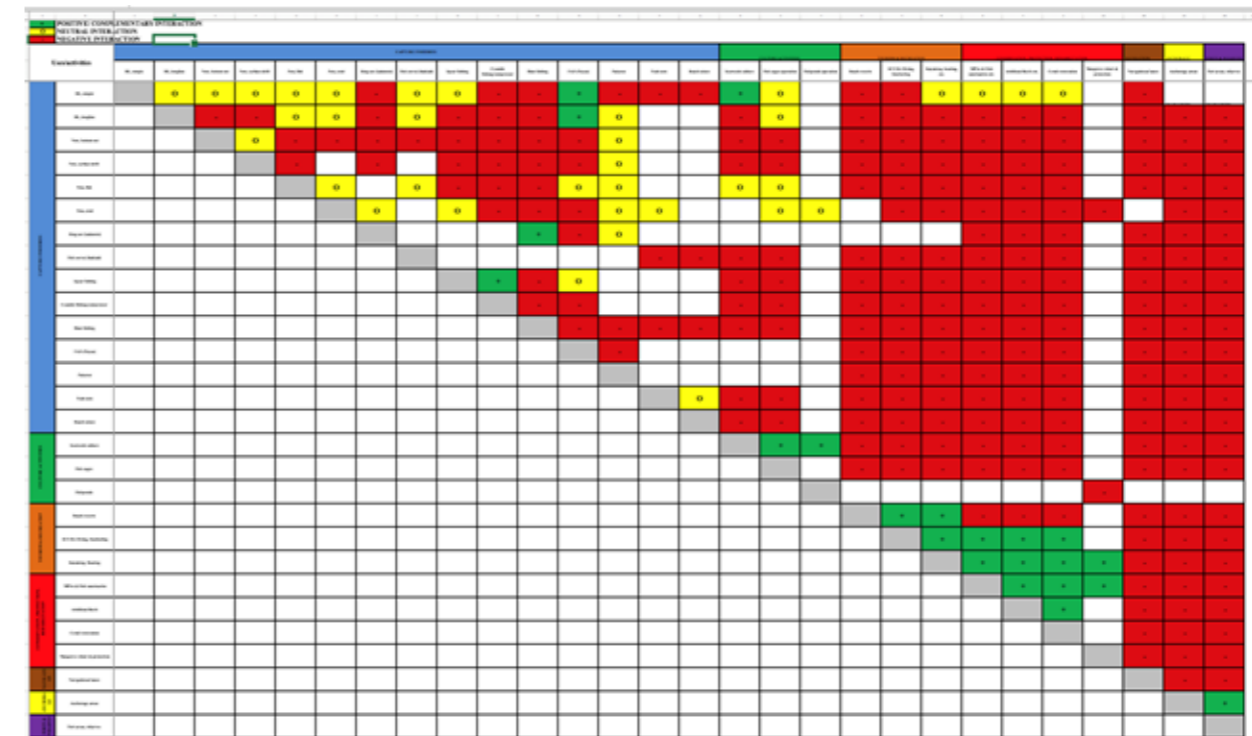
Figure 2. Base map of the fisheries management area



- Using the base map, place markers in the location where conflicts occur. The markers may be in different sizes, indicating the magnitude of the conflicts. Beside each marker, place a metacard that briefly describes the conflict and the parties (e.g. conflict between fishers of Municipalities A and B that fish the same migratory species; conflict between fishers and transport vessels along navigational routes).

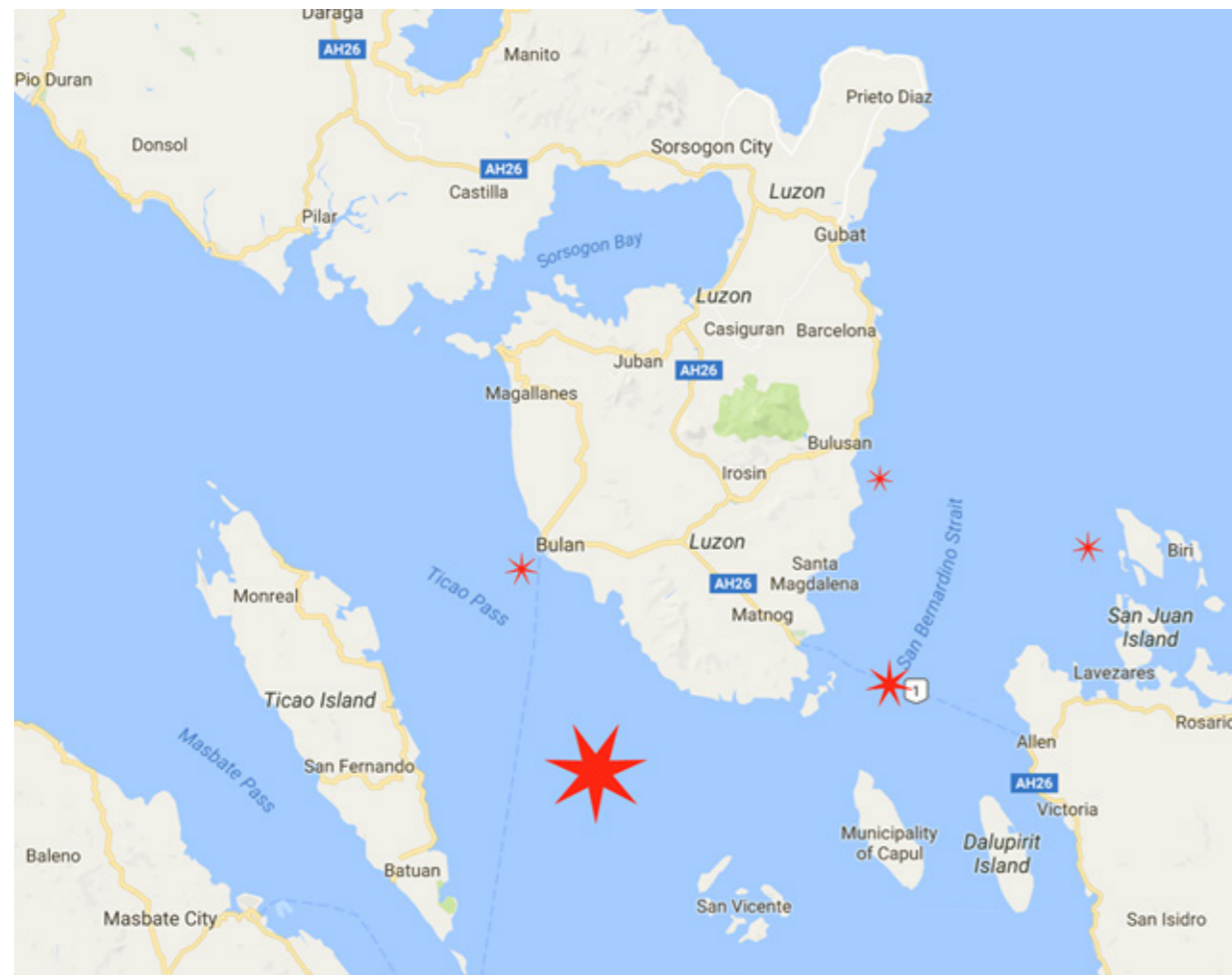
### SAMPLE OUTPUTS

Figure 3. Sample interaction matrix



- By the end of this activity, it should be generally clear among the participants which activities can co-exist within a defined space and which activities cannot. In addition, where conflicts or negative interactions are obvious between two uses, this may be the opportunity for the planners and stakeholders to determine which activity/use should be prioritized based on their defined management goals for the area.

Figure 4. Sample conflict map



- Markers indicate location and magnitude of conflicts; notes (beside markers or in separate legend) briefly describe the conflict and the interests of the parties to the conflict.



#### WHEN DO YOU USE IT?

- The interaction matrix and conflict map are used to discuss and gain understanding of specific conflicts in the fisheries management area. This analysis is needed prior to preparation of the management actions that are designed to address these conflicts.
- The interaction matrix is a pre-requisite to marine spatial planning.

## TOOLKIT 4

# Mapping threats in municipal IUU fishing



### WHAT IS IT?

Threat mapping is a process of identifying illegal, unreported and unregulated (IUU) fishing in the LGU or the wider fisheries management area by placing icons on maps/ charts. The threat map may also include other threats to fisheries and coastal resources coming from land-based activities, such as mining, quarrying, industrial pollution, etc.

The threat map is useful in developing enforcement and regulatory management actions to address IUU fishing and other threats. It is a requirement in preparing an operations plan for fisheries law enforcement.

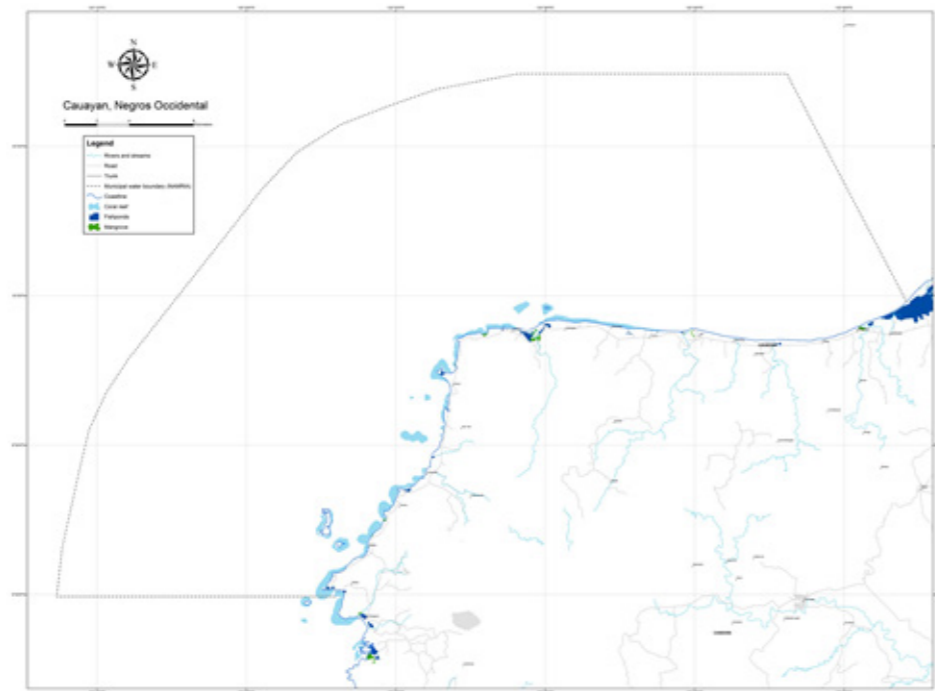


### HOW IS IT CONDUCTED?

#### *A. Interaction matrix*

- Choose a base map from Google maps, NAMRIA chart, maps.me, or hand-drawn map from previous community mapping exercise. Draw the boundaries of the municipal waters (NAMRIA proposed or approved).
- Using prepared icons, stick the icons on the map to indicate the location where IUU fishing and other threats occur (see sample output).

Figure 1. Base map



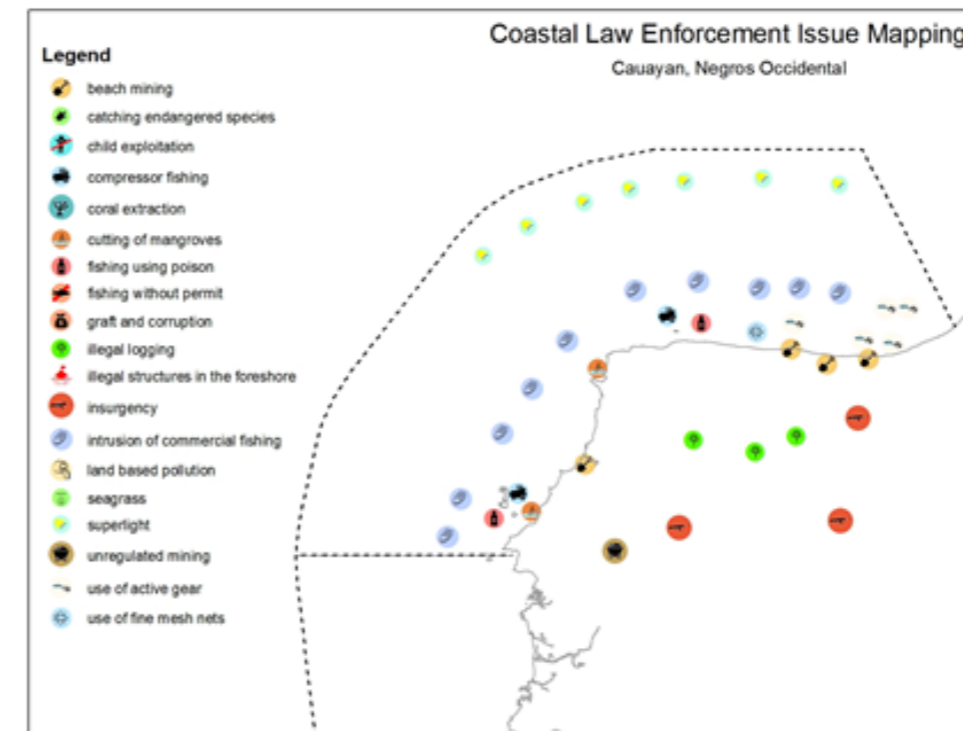
- In addition to the threats, you may also indicate on the map the location of key law enforcement assets, such as bantay-dagat guard houses or outposts, PNP-Maritime Group stations, local police stations, PCG offices, and so on.
- It may also be useful to identify the known violators (individuals or groups) and their location.

## SAMPLE OUTPUTS

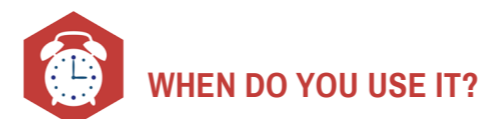
Figure 2. Workshop output



Figure 3. Digitized version of the workshop output



- The frequency of occurrence of certain forms of IUU fishing is an important factor in prioritizing of threats to address in the management planning process or in the FLE operations plan.



- Threat mapping is useful at the beginning of the planning process to establish baselines, and at regular intervals for future monitoring and evaluation. The information should be used to ensure that fisheries law enforcement is efficient and effective.

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