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THE FUTURE OF MUNICIPAL FISHERIES IN THE PHILIPPINES: DOES THE PHILIPPINE FISHERIES CODE DO ENOUGH?

Devon Shannon†

Abstract: The allocation of fishery resources is a critical concern for the Philippines municipal fishing sector where the global problem of overfishing has taken its toll on near-shore aquatic life. The dependency of coastal Filipino communities on fishery resources for nutrition and livelihood necessitates an analysis of the 1998 Philippine Fisheries Code's ('PFC's') ability to facilitate effective marine resource allocation at the municipal level. A comparison of international instruments addressing fishery resource management with the PFC reflects a clear intent on the part of the Code's drafters to emulate accepted international standards. In some areas, however, the PFC's ambiguous language hinders clear interpretation and renders lofty objectives unrealized. Concerns of small-scale fisherfolk regarding commercial sector access to municipal waters may be alleviated by strengthening local management and enforcement, or by amending the PFC to prohibit commercial fishing within the fifteen kilometer municipal water area. Restrictions on types of gear and destructive fishing methods, while limiting resource access, are necessary for ecosystem sustainability and have been modified to treat small-scale fishers more fairly. The devolution of implementation, management, and enforcement responsibilities of the PFC to local governments may be inadequate if proper funding and coordination is not facilitated at the national level. Finally, provisions for education and training in the PFC are limited and those provisions that have been included have not yet been successfully implemented. While subsequent interpretations of the PFC have supported resource allocation to municipal fisherfolk, overall implementation at both local and national levels has been constrained by a lack of oversight, coordination, and funding. Thus, while the PFC provides a framework for promoting the needs of municipal fisherfolk, it could be more comprehensive in supporting small-scale fishing interests through increased attention to provisions affecting resource allocation.

I. INTRODUCTION

Overfishing and coastal resource depletion have led to international concern regarding the state of the ocean ecosystems and coastal populations. To address these concerns, national and international efforts are being made to promote sustainable development of the seas and coastal areas. In most cases this has necessitated a reevaluation of resource management, and more specifically, how fishery resources are allocated among competing interests. The strain on coastal fishery and aquatic resources as a result of habitat degradation and overfishing is particularly debilitating in the Philippines,

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where a substantial percentage of the country’s jobs and foodstuffs depend on the health of the ocean. In 1998, after over ten years of discussion, the government passed the Philippine Fisheries Code of 1998 ("PFC") with the stated objective of prioritizing the interests of municipal fisherfolk.

Because resource allocation is a central consideration for any fisheries management plan, this Comment addresses the PFC’s provisions for the distribution of resources for the municipal fishing sector. The analysis questions the clarity of the Philippines’ commitment to small-scale fishers, using two related inquiries. First, does the text of the PFC itself promote the allocation of fishery and aquatic resources to municipal fisherfolk? The PFC clearly lists objectives that would affirmatively answer this question. However, particular provisions within the PFC leave questions as to the efficacy of these objectives. This question is addressed through a comparison of the PFC’s text to international standards in four areas which directly and indirectly affect resource allocation to municipal fisheries: (1) access to fishing grounds; (2) limitations on how these areas can be used; (3) authority of local government units to determine resource use; and (4) access to education and training. The PFC directly impacts the use of near-shore fisheries resources by imposing restrictions on who can fish, when and where they can fish, and the type of gear they can use. Resource allocation is indirectly affected through provisions charging local governments with management, implementation, and enforcement responsibilities. Finally, access to education and training enables communities not only to make use of current resources, but gives them the tools to maintain that access in the future.

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4 In referring to fisherfolk, this paper uses the terms "small-scale" and "municipal" interchangeably. In the PFC, municipal fisherfolk are defined as "persons who are directly or indirectly engaged in municipal fishing and other related fishing activities." PFC, supra note 3, § 4(56).
6 Municipal fishing refers to fishing within municipal waters using fishing vessels of three gross tons or less, or fishing not requiring the use of fishing vessels. Defined in PFC, supra note 3, § 57.
7 See discussion infra Part II.C.
The second half of the analysis asks whether the PFC has been interpreted and implemented at the local and national level so as to promote allocation of resources to benefit municipal fisherfolk. Despite being adopted over four years ago, there are very few indications that the PFC’s provisions have been implemented. The analysis briefly looks at how this limited implementation has addressed and affected resource distribution at the municipal level.

The conclusions reached through this analysis may provide guidance in the upcoming mandatory congressional review of the PFC.\(^9\) The PFC is clear in prioritizing municipal fisherfolk in its objectives; however, in terms of actual resource allocation furthering the interests of small-scale fisherfolk, the water becomes murky. Provisions for preferential use of municipal waters by small-scale fisherfolk are made less salient by allowing commercial fishing of near-shore stocks. Clear guidelines for appropriate fishing methods and gear use are codified by the PFC, and while some punishments may be less severe than pre-Code regulations, considerable attention has been given to the potential effects of fines and jail time on small-scale fisherfolk. The devolution of implementation and enforcement authority to the local level may be a boon to active, progressive local government units (“LGUs”), but may lead to inaction where funds are lacking or officials are subject to commercial influence. Emphasis on training and education, while supported generally within the PFC, has been implemented only intermittently at the local level, while national commitments have gone largely unrealized. The provisions discussed throughout this Comment paint a picture of a fisheries code that is well-intentioned, yet often incomplete.

II. INTERNATIONAL AND NATIONAL TREATMENT OF OVERFISHING

A. Overfishing

Overfishing is a global environmental and social concern that continues to intensify as demand for fishery and aquatic resources increases with our growing population.\(^10\) As of 2000, approximately 50% of all marine fish stocks were considered fully exploited, while another 24-28%
were considered either overexploited or recovering from depletion.\textsuperscript{11} New gear and new fishing methods, some highly destructive, increased total fish catches for a number of years. More recently, however, increases in catch per unit effort have stagnated and declined in many areas, including the Philippines.\textsuperscript{12}

The problem of overfishing is particularly significant in the Philippines where, as in other coastal states, overfishing can be attributed to lack of management, the development of more efficient technology, and the open access nature of fisheries.\textsuperscript{13} Fishery and aquatic resources provide the foundation for environmental sustainability, local employment, and national nutritional needs for the predominately coastal Filipino population. Over two-thirds of the country’s animal protein consumption is based on fish production\textsuperscript{14} and more than 3% of the total population in the Philippines is employed through the fisheries sector.\textsuperscript{15}

Environmental problems, including water quality decline and pollution, have exacerbated the reduction in fisheries productivity.\textsuperscript{16} Illegal unreported and unregulated ("IUU") fishing practices,\textsuperscript{17} such as the use of dynamite or poison, have also damaged environmentally sound aquatic habitat, resulting in an overall decline in municipal fisheries production.\textsuperscript{18} Commercial fishing has also been charged with causing resource degradation.\textsuperscript{19}

The impact of these factors is even more pronounced in coastal villages ("barangays"), where over 60% of the population resides.\textsuperscript{20} These municipal fishing communities are among the poorest in the country and are more reliant on fishing to provide food for their families.\textsuperscript{21} "Fish caught in

\begin{thebibliography}{9}
\bibitem{Whiteetal} ALAN T. WHITE \textit{ET AL., Experience with Coastal and Marine Protected Area Planning and Management in the Philippines} 4 (2000).
\bibitem{Israel&Banzon2} Israel & Banzon, \textit{supra} note 12, at 2.
\bibitem{FAOProfile} FAO \textit{Fishery Country Profile, supra} note 1.
\bibitem{Whiteetal2} WHITE \textit{ET AL., supra} note 13, at 4.
\bibitem{IUID} Id.
\bibitem{LaVina} \textit{Commercial Fishing Threatens Philippine Marine Resources, BUs. DAILY (PHIL.), Feb. 9, 1998, 1998 WL 5444120.}
\bibitem{Israel&Roque} ISRAEL & ROQUE, \textit{supra} note 2, at 6, 10.
\end{thebibliography}
near-shore or municipal waters provide approximately 50% of the animal protein” in Filipinos’ diets, and this number increases to 80% when referring to the diet of those in rural coastal communities.22 In addition, 68% of those working in the fisheries sector make a living through municipal fishing.23 Over the past ten years, municipal fisheries have been the hardest hit by overfishing: “Since 1980, the manifestation of overfishing has been evident in the declining catch of small fisherfolk in municipal waters.”24 Growth in this sector has declined since 1990, and the growth rate was negative in both 1993 and 1996.25 As of 1999, approximately 85% of municipal waters in the Philippines were considered overfished.26

B. International Standards

Standards set forth in various international instruments provide guidelines for national legislation on sustainable development and, in particular, effective resource allocation. Throughout this analysis, three internationally accepted bodies of principles are applied to qualify and question the PFC’s framework for marine fisheries resource allocation.

Agenda 21, the most comprehensive result of the United Nations Conference on Environment and Development (“UNCED”), devotes Chapter 17 specifically to the management of coastal and ocean resources.27 The Chapter recognizes the important nexus between social and environmental development by committing to “improve the living standard of coastal populations . . . so as to reduce the degradation of the coastal and marine environment.”28

The Rio Declaration on Environment and Development,29 signed by the Philippines in 1992, lists twenty-two general principles that provide globally accepted socially and environmentally sound guidelines for development. While these principles tend to be general, they provide a baseline for international agreement on development and environmental issues that can be used as a checking mechanism for the PFC’s provisions.

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23 FAO FISHERY COUNTRY PROFILE, supra note 1, at 5.
24 Commercial Fishing Threatens Philippine Marine Resources, supra note 19.
25 ISRAEL & ROQUE, supra note 2, at 4.
26 La Vina, supra note 20, at 8.
28 Id. ch. 17.22(e).
The Code of Conduct for Responsible Fisheries ("Code of Conduct") provides the most recent and most relevant international agreement on fisheries management. The Code of Conduct was the result of a conference facilitated by the Food and Agricultural Organization ("FAO") and was adopted unanimously by the countries attending the conference in 1995. It is used here to provide specific examples of what the international community has endorsed to effectuate equitable resource allocation in the fisheries sector.

These instruments are considered non-binding on the signatory countries, but the agreed upon principles provide a comprehensive set of standards that the Philippines has acknowledged and agreed to support. Additionally, the Philippines may be bound to some of the provisions in these agreements because the principles reflect customary international law. In either case, the principles agreed to in the Code of Conduct, Agenda 21, and the Rio Declaration may be regarded as indicative of the goals and objectives of the signatories, including the Philippines. These principles will guide the analysis in gauging the strength of the PFC's framework in promoting resource allocation in the interests of municipal fisherfolk.

C. Philippine Fisheries Code of 1998

The PFC serves to consolidate all fisheries legislation up to 1995 and expand the law in some areas, particularly in the areas of sustainable

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31 The 1995 session was followed by another meeting in 1999 to revisit the need to manage fisheries responsibly at the international and national levels. This conference was attended by the Philippines and represents a recommitment to the provisions of the original Code. Rome Declaration On The Implementation Of The Code Of Conduct For Responsible Fisheries, adopted by the FAO Ministerial Meeting on Fisheries, Rome (Mar. 1999), http://www.fao.org/fi/agreem/declar/dece.asp.
32 CODE OF CONDUCT, supra note 30, at preface.
33 FAO INTEGRATION, supra note 10, at 2.
36 See Executive Order No. 15, supra note 34.
development and prioritization of municipal fisherfolk.\textsuperscript{37} Two primary legal sources\textsuperscript{38} helped to guide the principles embodied in the PFC: the Constitution of the Republic of the Philippines (the "Constitution"),\textsuperscript{39} and the Local Government Code of 1991 ("LGC").\textsuperscript{40} The Constitution emphasizes the need to protect the rights of subsistence fisherfolk and notes the state responsibility to "protect, develop and conserve" inland and offshore marine and fishing resources.\textsuperscript{41} The LGC sets the stage for the devolution of responsibility to LGUs to carry out the Constitution's mandates.\textsuperscript{42} The LGC also establishes a precedent for local governments to manage the fishery and aquatic resources within fifteen kilometers of the shore.\textsuperscript{43}

The 1998 Philippine Fisheries Code was promulgated in response to government concerns regarding the general decline in productivity of marine resources, as well as "overexploitation of the near-shore coastal resources and poverty among municipal fisherfolk."\textsuperscript{44} These environmental and social concerns, as well as the Philippines economic dependency on fishing,\textsuperscript{45} obliged the government to address coastal habitat degradation and overfishing in local waters. The high rates of poverty in coastal communities and the increased impact of overfishing on near-shore aquatic resources have made it impossible for the government to ignore the pressing social needs of the coastal municipalities.\textsuperscript{46}


\textsuperscript{39} PHIL. CONST. (1987).

\textsuperscript{40} LGC, supra note 8.

\textsuperscript{41} Id. art. XIII, § 7.

\textsuperscript{42} LGC, supra note 8. See also LEGAL GUIDEBOOK, supra note 38, at 14-15.

\textsuperscript{43} WHITE ET AL., supra note 13, at 13.


\textsuperscript{45} See FAO FISHERY COUNTRY PROFILE, supra note 1, at 1-2.

While the PFC took over ten years to pass, its stated goals show dedication to the interests of small-scale fisherfolk and sustainable development.\(^{47}\) The PFC was enacted asserting the objectives of promoting "conservation, protection and sustained management of the country's fishery and aquatic resources [as well as] poverty alleviation and the provision of supplementary livelihood among municipal fisherfolk.\(^{48}\) Through its statement of policy and listed objectives, the PFC makes specific provisions for the increased support and prioritization of municipal fisherfolk. The Philippine government has stated that the PFC will "ensure food security and sustained livelihood for small fishermen . . . .\(^{49}\) Despite its clarity of purpose, the PFC has been interpreted along a spectrum ranging from recognition as the new legal template for sustainable fisheries management, to simply ineffective, and even to actively hindering the ability of small-scale fisherfolk to make a living and provide for their families.\(^{50}\) The more detrimental interpretations have been largely overshadowed by the optimistic belief, or hope, that the PFC will attend to the social and environmental needs of the municipal fishing sector.

Resource allocation is a fundamental problem in coastal area management.\(^{51}\) The Report of the World Commission states that "physical sustainability cannot be secured unless development policies pay attention to such considerations as changes in access to resources and in the distribution of costs and benefits."\(^{52}\) In this Comment, resource allocation is broadly defined to explore both direct and indirect impacts of the PFC on the municipal fishing sector. The ability of the PFC to prioritize municipal fisherfolk turns on the interpretation of provisions regulating resource access, use restrictions, management authority, and availability of education and training. After looking at how these issues are developed within the text


\(^{48}\) These are two of five stated objectives in the PFC; the other three are related to fisheries issues outside the scope of this comment. PFC, supra note 3, § 2.


\(^{50}\) Congress Said to Approve "Defective" Fisheries Code, supra note 47 (reporting that because the PFC took almost eleven years to pass through both government houses, the enacted Code was too much of a compromise and has little effect on curbing over-exploitation of marine and aquatic resources); see also Ferdinand G. Patinio, Angry Fishermen Defile Batasan with Rotten Mussels, BUS. DAILY (PHILIPPINES), Oct. 7, 1998, 1998 WL 12221506 (reporting that small-scale fishing efforts have been smothered by the PFC and that it actually promotes the interests of commercial fisheries).

\(^{51}\) FAO INTEGRATION, supra note 10, at 3.

\(^{52}\) WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT ("WCED"), OUR COMMON FUTURE 43 (1987).
of the PFC, this Comment assesses how these regulations have been interpreted in subsequent national and local actions.53

III. THE PFC AND ITS EFFECTS ON SMALL-SCALE FISHERFOLK IN THE PHILIPPINES

The PFC can be used as a functional tool to promote the interests of small-scale fisherfolk, but provisions for resource distribution could be strengthened to further these interests. This conclusion is supported by analyzing two questions. First, how does the PFC’s text impact resource allocation to the municipal fishing sector? This question addresses the text of the PFC as it affects resource allocation in four key areas: access to fishing grounds, limitations on how these areas can be used, authority of local government units to determine resource use, and access to education and training. The second question asks how the PFC has been interpreted and implemented over the past four years at both national and local levels.

A. The PFC’s Textual Provisions for Resource Allocation

In assessing the PFC’s provisions for municipal access to fishery resources, the clearest determinant is the amount of physical territory to which these municipalities have access and what limiting factors apply. One of the primary policies set forth in the PFC is the grant of “preferential use of the municipal waters” to small-scale fisherfolk.54

International agreements have generally supported the preferential treatment of subsistence fishers to access local resources. The Code of Conduct provides clear support for protecting the rights of small-scale fisherfolk and extends this protection to preferential access to aquatic resources and fishing grounds:

Recognizing the important contributions of artisanal and small-scale fisheries to employment, income and food security, States should appropriately protect the rights of fishers and fish workers, particularly those engaged in subsistence, small-scale and artisanal fisheries, to a secure and just livelihood, as well as

53 The scope of this Comment is limited to issues surrounding marine resource allocation under the PFC in the municipal waters of the Philippines. Not included in this analysis are other elements of sustainable development or resource allocation, including post-harvest distribution of aquatic resources. Nor does this analysis address the growing impact of aquaculture on the ability of municipal fisherfolk to maintain a livelihood in the fisheries sector.

54 PFC, supra note 3, § 2(d).
preferential access, where appropriate, to traditional fishing
grounds and resources in the waters under their national
jurisdiction.  

More generally, the Rio Declaration supports the international
prioritization of the interests of developing countries because of their
environmental vulnerability. This principle may arguably be applied to
national treatment of particular groups within the Filipino population. Just
as the most vulnerable nation-states warrant special protections, so do the
most vulnerable populations within a given country. In terms of changes to
the marine environment, the municipal fishing community is the most
vulnerable segment of the population—exceptionally susceptible to
heightened food insecurity and poverty. The special recognition of
municipal fisherfolk needs in the PFC is based on the same principles
underlying the recommendation of preferential treatment for developing
countries in the Rio Declaration.

Furthermore, Agenda 21 specifically refers to the necessity of “taking
into account the special needs and interests of small-scale artisanal fisheries .
. . to meet human nutritional and other development needs.” Agenda 21
also recognizes “the rights of small-scale fishworkers . . . to utilization and
protection of their habitats on a sustainable basis.” This international
support for specific recognition of the needs within the small-scale fishing
community to access marine resources provides the foundation for the
provisions adopted through the PFC in the Philippines.

The PFC specifically commits the state “to protect the rights of
fisherfolk, specially of the local communities with priority to municipal
fisherfolk, in the preferential use of the municipal waters.” Food security
and poverty alleviation are noted as the primary objectives of the PFC,
which further recognizes the provision of preferential access to fishing
grounds in municipal waters as a way to fulfill these objectives. Notwithstanding clear direction from both international agreements and the
PFC itself, there are several areas within the PFC that limit and qualify the
use of municipal waters by small-scale fisherfolk.

55 See CODE OF CONDUCT, supra note 30, § 6.18.
56 Rio Declaration, supra note 29, princ. 6.
57 ISRAEL & ROQUE, supra note 2, at 10.
58 Agenda 21, supra note 27, §§ 17.79(b), 17.82.
59 Id. § 17.81(b).
60 PFC, supra note 3, § 2(d).
61 Id. §§ 2(a), 2(2).
1. Regulations on Access to Fishing Territory

There are several areas within the PFC that delineate and qualify the rights of municipal fisherfolk to access municipal waters and the marine resources within those waters. The first of these qualifications arises in the overlap of commercial and municipal interests. A major point of controversy in the PFC is the provision for limited commercial fishing within municipal waters.62

Originally, Presidential Decree No. 704 of 1976 prohibited the use of commercial fishing vessels in municipal waters less than seven fathoms deep.63 The LGC, passed in 1991, extended the recognition of municipal waters to fifteen kilometers from the shore and reinforced the municipalities' control over use of resources within that area.64 While the LGC does not specifically speak to the extension of the commercial fishing prohibition from seven fathoms deep to a distance measurement of fifteen kilometers, interpretations are generally been that the prohibition applies throughout the fifteen kilometer municipal water area.65 This interpretation has been further supported by subsequent Department of Agriculture statements that the Bureau of Fisheries and Aquatic Resources (“BFAR”) had no authority to issue commercial fishing licenses for operations within municipal waters.66

Insofar as the provisions in the LGC or Presidential Decree 704 are

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62 As defined in the PFC:

["Municipal waters"] include not only streams, lakes, inland bodies of water and tidal waters within the municipality which are not included within the protected areas as defined under Republic Act No. 7586 (The NIPAS Law), public forest, timber lands, forest reserves or fishery reserves, but also marine waters included between two (2) lines drawn perpendicular to the general coastline from points where the boundary lines of the municipality touch the sea at low tide and a third line parallel with the general coastline including offshore islands and fifteen (15) kilometers from such coastline. Where two (2) municipalities are so situated on opposite shores that there is less than thirty (30) kilometers of marine waters between them, the third line shall be equally distant from opposite shore of the respective municipalities.

Id. § 58.


64 LGC, supra note 8, § 131(r).

65 "In effect, the prohibition on commercial fishing within municipal waters under [P.D. 704] is still applicable under the LGC. Otherwise the intent for resource conservation is negated." Who's Responsible for What? ... Where Do We Fish From Here?, 2 COASTAL CURRENTS 1 (1997), at http://mozcom.com/admsucrm/news-2i.htm.

66 See Cruz-Trinidad et al., supra note 46.
inconsistent with the PFC, they are no longer valid and, as a result, prior prohibitions on commercial fishing have been repealed.\(^67\)

The PFC gives mixed signals as to who may use and control municipal waters for fishing activities. The PFC first states that "all fishery related activities in municipal waters . . . shall be utilized by municipal fisherfolk and their cooperatives/organizations who are listed as such."\(^68\) This appears to give municipal fishing communities the exclusive right to utilize municipal waters and coincides with the provisions of prior fisheries legislation. Other provisions within the PFC, however, leave a significant loophole in promoting the preferential treatment of local fisherfolk by allowing commercial fishing in municipal waters under certain circumstances. As stipulated in Section 18 of the PFC, municipal waters between 10.1 and 15 kilometers from the shoreline may be used by small and medium sized commercial fishers provided that the water is over seven fathoms deep, legal fishing methods and equipment are used, a public hearing has been held with the fishery and aquatic resources management council ("FARMC"),\(^69\) the vessel and crew are certified, and the local chief executive approves the activity.\(^70\) While the conditions placed on commercial fishing appear to be substantial, there are legitimate concerns that this provision will intensify resource depletion in municipal waters and enable local officials who own commercial fishing firms to influence local policy.\(^71\) Some also argue that food security may be jeopardized by this provision of the PFC because, in effect, it allows commercial fishing in a greater area of municipal water than was permitted prior to the PFC's enactment.\(^72\)

While the PFC does leave potential for commercial fishing activities in municipal waters, final determination of the issue is left in the hands of the local governments. There are ongoing attempts to seal the Section 18 loophole through encouragement by BFAR for LGUs to pass ordinances preventing all commercial fishing in municipal waters.\(^73\) In revisiting the provisions of the PFC, the national government should consider taking action to prohibit all commercial fishing activity in municipal waters if there

\(^67\) PFC, supra note 3, § 131.
\(^68\) Id. § 18.
\(^69\) For a more detailed discussion of FARMCs, see discussion infra Part III.A.3. See also PFC, supra note 3, §§68-79.
\(^70\) PFC, supra note 3, § 18.
\(^72\) New Fisheries Law Signed, supra note 49.
\(^73\) Castillo, supra note 71, at 3.
are valid concerns that local governments will be ineffective in preventing or limiting commercial activity.

In addition to drawing a line between commercial and municipal use rights to near-shore waters, access to fishery resources is qualified by various PFC provisions that allow for the creation of closed seasons, marine reserves, and catch ceilings. The Department of Agriculture ("DA") is charged with the establishment of closed seasons for conservation and ecological purposes. LGUs, in conjunction with local FARMCs, have the power to establish closed seasons in municipal waters without DA approval. The DA also determines catch ceilings. Those fishing above catch ceilings or during closed seasons risk fines of up to fifty thousand pesos (US$980), imprisonment from between six months and six years, as well as forfeiture of their catch and revocation of their fishing license. The provisions for fish reserves and sanctuaries permit LGUs, in conjunction with the FARMCs, to establish any fishery refuge within fifteen kilometers of the shore. The PFC also requires that 15% of municipal waters be set aside as marine reserves and sanctuaries. These provisions will presumably to help restore depleted fishery resources in the areas determined by the community to be most in need of restoration.

In limiting access to fishing resources through closed seasons, catch ceilings, and fish reserves, the PFC attempts to balance competing interests and needs that cover the full spectrum of environmental, economic, social, and political demands. These interests all take on some value in the ultimate equation that should, in accordance with the stated objectives of the PFC, balance in favor of municipal fisherfolk. This analysis requires questioning whether the needs of the municipal fishing communities are best served through the PFC's provisions for access to municipal waters and blanket limitations on fishing in certain areas and at certain times. It appears that the establishment of closed seasons, marine refuges, and catch ceilings serve the long-term interests of municipal fisherfolk by promoting sustainable use of the fishery resources. These provisions apply uniformly to all resource

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74 PFC, supra note 3, §§ 8, 9, 80.
75 Id. § 9.
76 See id. §§ 68-79 (general provisions on FARMCs). See also discussion infra Part III.A.3.
77 PFC, supra note 3, § 9.
78 Id. §§ 8, 101.
79 Id. §§ 95, 101.
80 Id. § 80.
81 Id. § 81.
82 Determination of closed seasons, catch ceilings, and marine reserves are based on Maximum Sustainable Yield ("MSY") and Total Allowable Catch ("TAC") using the best available scientific evidence. Id. §§ 7, 8, 9.
users and, therefore, should not be prejudicial to municipal fisherfolk. If commercial fishing is permitted in municipal waters, however, these limitations on use will leave municipal fisherfolk with a smaller portion of already limited near-shore fishery resources. If preferential access is really to be attained through the PFC, commercial fishing should be prohibited in municipal waters to allow small-scale fishing interests to manage and benefit exclusively from fishery resources within fifteen kilometers of the shore.

2. **PFC Regulations on Use of Municipal Waters**

   Restrictions on gear use and prohibitions on specific methods of fishing that are particularly destructive to the marine ecosystem are essential to sustainable management of marine fisheries resources. These restrictions specifically impact the ability of municipal fisherfolk to access aquatic resources. These limitations are necessary for the long-term viability of the coastal fisheries, as well as the sustainability of communities dependant on marine resources. The codification and consolidation of prohibitions on IUU fishing practices, along with the delineation of punishments for these violations through the PFC, provide a major step towards ensuring sustainable use of municipal waters.

   Agenda 21 provides a basis for limiting types of gear and fishing methods with its blanket prohibition on "dynamiting, poisoning and other comparable destructive fishing practices." The international community recognizes these particular practices, as well as the use of certain types of fishing gear, as contributing to the destruction of fishery resources and amplifying the problem of overfishing. The Code of Conduct acknowledges the value of "environmentally safe fishing gear and practices" that should be "recognized and accorded a priority in establishing conservation and management measures for fisheries." Following suit, the PFC prohibits fishing with poison or explosives, the use of fine mesh

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83 FAO FISHERIES MANAGEMENT, supra note 5, at 13, 46-47.
84 DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES ET AL., COASTAL LAW ENFORCEMENT 2 (Philippine Coastal Management Guidebook Series No. 8, 2001) ("The use of destructive fishing practices such as dynamite and cyanide fishing and the intrusion of commercial fishing vessels into municipal waters causes overexploitation of municipal fisheries, habitat destruction, and deprives marginal fishers of food and livelihood").
85 For purposes of this section, IUU fishing practices encompass those types of gear and fishing methods expressly prohibited by the PFC. See IUU Fishing Press Release, supra note 17.
86 Agenda 21, supra note 27, § 17.84.
87 IUU Fishing Press Release, supra note 17.
88 CODE OF CONDUCT, supra note 30, § 6.6.
89 PFC, supra note 3, §§ 88, 93.
nets, the use of active gear, and superlights in municipal waters, bays and other fishery management areas, as well as prohibiting fishing in restricted areas.

There has been some controversy over the PFC's delineation of fines and punishments. In some instances they have been less severe than the prior regulating order. For example, Presidential Decrees 704 and 1058 imposed prison terms for the possession and use of dynamite for fishing prior to the enactment of the PFC. The PFC decreased the potential imprisonment time for both possession and use of explosives, but has added a provision requiring forfeiture of catch, vessel, and fishing equipment. The reduction of penalties for blast fishing has been attributed to the common belief that blast fishers are very poor, and long imprisonment may have adverse impacts on the family of the accused.

In some cases, however, the PFC's restrictions are more stringent. Prior to the enactment of the PFC, the use of muro-ami was prohibited and regulated by Fisheries Administrative Order 163. The PFC builds on this prohibition, increasing the potential imprisonment time and fines, as well as including the confiscation of catch and gear not provided for in the previous order. Here, the PFC attempts to strengthen and reinforce prohibitions on destructive fishing methods and the use of illegal gear by increasing the potency of the penalties. Most significantly, the PFC adds a provision

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90 Exceptions are for the catching of fry, glass eels, elvers, tabios, and other species that are particularly small at maturity. These exceptions are regulated by the Department of Agriculture. Id. § 89.

91 Id. Section 4(40)(a) defines active gear as:

Fishing device characterized by gear movement, and/or the pursuit of the target species by towing, lifting, and pushing the gears, surrounding, covering, dredging, pumping and scaring the target species to impoundments; such as, but not limited to, trawl, purse seines, Danish seines, bag nets, paaling, drift Gill net and tuna longline.

See id. §90 (detailing the penalties for using prohibited fishing gear).

92 Id. §§ 4(71), 93.

93 This includes overfished areas during the closed season and fishing in reserves. Id. §§ 95, 96.


95 It should be noted that the designation of blast fishers as the poorest of the poor may be a misnomer. See, e.g., A Closer Look at Blast Fishing in the Philippines, 2 ONLINE MAG. FOR SUSTAINABLE SEAS (May 1999), at http://www.oneocean.org.

96 "Muro-ami, or drive-in net, defined as a Japanese fishing gear used in reef fishing which consists of a movable bag net and two detachable wings effecting the capture of fish by spreading the net in arc form around reefs and shoals." LEGAL GUIDEBOOK, supra note 38, at 102. With the aid of scaring devices, a cordon of fishers drives the fish from the reefs toward the bag portion of the whole net. Id.

97 See id. at 158 (referring to Fisheries Administrative Order 163 (1986) (Phil.)). See also Cruz-Trinidad, supra note 94, at 22.

98 PFC, supra note 3, § 92.
requiring the forfeiture of "explosives, noxious or poisonous substances and/or electrical devices, as well as the fishing vessels, fishing equipment and catch." This provision acts as a strong deterrent for violating these provisions, as well as preventing, or at least delaying repeat offenses.

While there are some examples of reduced punishments for illegal practices, overall it appears that the PFC makes regulating violations straightforward and increases the likelihood of implementation. The PFC consolidates prohibited fishing practices and their penalties, simplifying implementation and enforcement. In addition, provisions have been made to reduce punishments that are perceived to be unduly hard on the poorest members of the population, however inaccurate that characterization may be. While these restrictions may diminish the ability of municipal fisherfolk to access aquatic resources, the long-term benefits to the environment and the community are deemed a more pressing priority both in the PFC and comparable international standards. The Code of Conduct recognizes that "the right to fish carries with it the obligation to do so in a responsible manner so as to ensure effective conservation and management of the living aquatic resources." Therefore, the PFC limits irresponsible fishing practices for the long-term benefit of the environment, the small-scale fishing community, and the commercial sector. In order to attain the other objectives of the PFC, namely food security and poverty alleviation, limits and prohibitions must be placed on destructive fishing methods and must apply uniformly to all sectors of fishing.

3. Devolution of Management, Implementation, and Enforcement Authority to Local Government Units

The numerous provisions in the PFC facilitating marine resource allocation to the benefit of municipal fisherfolk will be futile without proper implementation and enforcement. While there are valid concerns in charging local governments with such extensive and imperative responsibilities, the PFC has adopted some safeguards that may act to ameliorate these concerns.

The Philippines recognizes the need for public involvement in implementation and enforcement. For example, the Rio Declaration’s Principle 10 promotes the belief that "environmental issues are best handled

99 Id. § 88(5).
100 A Closer Look at Blast Fishing in the Philippines, supra note 95, at 5.
101 CODE OF CONDUCT, supra note 30, § 6.1.
with the participation of all concerned citizens, at the relevant level." This principle promotes the involvement of the public and local government in a representative capacity, but leaves open the question of how involved local government should be, and at what levels they should be included. The Code of Conduct promotes the involvement of fishers "in the policy formulation and implementation process." Agenda 21 similarly encourages the provision of access to "concerned individuals, groups and organizations to relevant information and opportunities for consultation and participation in planning and decision-making at all appropriate levels." While these standards support public involvement, they do not sanction the complete divestiture of responsibility to a municipality or community for development, implementation, and enforcement of resource management regulations.

The Philippines has enacted a number of laws touting the importance of local control over implementation and enforcement of various national laws, as well as supporting the development of local legislation. The LGC is the basis for the PFC's handling of implementation and enforcement responsibilities. The LGC enables local governments to develop their own sources of revenue, pass ordinances, and enforce national and local legislation. The LGC is intended to provide "a more responsive and accountable local government structure." The PFC follows the provisions of the LGC and grants LGUs the power to "enforce all fishery laws, rules and regulations as well as valid fishery ordinances, enacted by the municipality/city council."

Despite recognizing the need for public involvement, there is debate over whether local governments can successfully apply the provisions of the PFC to create fisheries management regulations for municipalities that will provide long-term social and environmental safeguards. There are many who believe devolution of responsibility will lead to ineffective implementation. Unfortunately, "it is the common observation that local governments are ill prepared to take on the responsibilities" of formulating a comprehensive fisheries management scheme for their municipality. "While devolution raises hope for more direct and responsive management regimes, it also complicates the lines of authority over resources and may

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102 Rio Declaration, supra note 29, princ. 10.
103 CODE OF CONDUCT, supra note 30, § 6.16.
104 Agenda 21, supra note 27, §§ 17.5(f), 17.81(a).
105 LGC, supra note 8, §§ 129, 458.
106 Id. § 2(a).
107 PFC, supra note 3, § 16.
108 La Vina, supra note 20, at 26.
result in fragmented management initiatives . . . “109 With over 18,000 kilometers of coastline, efficiency and coordination are a challenge, particularly for local governments with few resources to promote common management.110 Given such a vast management area, there are concerns not only with ultimate management accountability, but also with the availability of sufficient resources for local governments to implement and enforce the PFC’s objectives. “Coastal Law Enforcement will only be effective, therefore, when national agencies and local governments take an integrated approach . . . .”111 The reality, however, is that “[c]oastal law enforcement authority, responsibility, and capability are highly fragmented and increasingly decentralized in the Philippines.”112

On the other side, there are those who claim that local government enforcement will be more effective because interest in social and environmental rehabilitation at the local level is more acute.113 Local government is arguably more representative of the immediate interests of the public and, therefore, the potential for realizing the goals of the PFC may be greater when LGUs have more control.

Some municipalities have formed regional bodies to address coastal area management collectively.114 As more municipalities work together to facilitate implementation and enforcement of local and national regulations, many of the arguments against local control become less salient. Regional management provides a balance that supports local involvement, while providing some oversight and potentially facilitating access to more financial resources. As a further measure to foster national oversight, the PFC requires the BFAR to provide training and technical assistance to help create management regimes for coastal resources.115

Another consideration must be the reality that national implementation and enforcement may not be the best solution. Where national enforcement measures are relied on, “enforcement is extremely weak.”116 Some commentators take the view that local authority is more

109 LEGAL GUIDEBOOK, supra note 38, at 2.
110 WHITE ET AL., supra note 13, at 1.
111 DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES ET AL., supra note 84, at 8.
112 Id. at 7.
115 LEGAL GUIDEBOOK, supra note 38, at 9.
116 Id. at 67.
efficient in the case of the Philippines because of the lack of national resources to regulate fishing activity and the archipelagic nature of the state.\textsuperscript{117} This has been attributed to a lack of political will, lack of training, and a general lack of awareness regarding fisheries legislation.\textsuperscript{118} The difficulty in giving fines and confiscating vessels and catch has been largely due to a lack of field staff in national agencies to monitor compliance.\textsuperscript{119}

The primary safeguard developed by the PFC to reduce the potential for ineffective local governance is the required formation of FARMCs.\textsuperscript{120} At the municipal level, these councils are generally comprised of representatives from the fishing community, non-governmental organizations ("NGOs"), LGUs, and government agencies.\textsuperscript{121} The primary role of these councils is to advise and assist in the development of local orders regarding fisheries management enforcement. FARMCs have been criticized because they act primarily in an advisory capacity, and currently are not required to have an environmental representative on the council.\textsuperscript{122} These factors tend to erode the clout and potential effect of the FARMCs as valuable community instruments. In at least some barangays, LGUs have viewed the power vested in FARMCs as limiting their ability to make decisions for their municipalities.\textsuperscript{123} The FARMCs' ability to provide assistance to municipal fisheries management has also been limited in some areas by powerful business interests in coastal resources.\textsuperscript{124}

Overall, the devolution of responsibilities regarding fisheries management to local government provides incredible potential for the development and implementation of strong regulations for the benefit of local communities. What is to be essential, and currently lacking, is national and regional oversight to avoid overlap and encourage efficiency in implementation and enforcement efforts within the municipalities. In addition to oversight, the national government should provide further resources, including funding and training, to enable local governments to effectively take on the responsibilities they have been afforded.

\textsuperscript{117} WHITE ET AL., supra note 13, at 14.
\textsuperscript{118} Id. at 4.
\textsuperscript{119} Id. at 68.
\textsuperscript{120} PFC, supra note 3, § 69.
\textsuperscript{121} WHITE ET AL., supra note 13, at 14.
\textsuperscript{122} ISRAEL & ROQUE, supra note 2, at 26.
\textsuperscript{124} Id.
4. Access to Education and Training

Education and training are vital elements of a successful resource management regime. The "paramount importance to fishers and fishfarmers of understanding the conservation and management of the fishery resources on which they depend" is recognized and promoted in the Code of Conduct. In looking toward future resource allocation, sustainable fisheries management is dependant on individuals and communities actively participating in the implementation of the PFC's tenets, as well as seeking out new ways to develop and conserve coastal resources. Despite the Code of Conduct's strong precedent advocating "awareness of responsible fisheries through education and training," the PFC's provisions for these elements are limited and of questionable effect. Neither education nor training is listed as a policy of the state or an objective of the PFC, and such provisions within the text of the Code have not been given significant attention.

Education, including fostering public awareness, is an indispensable component of any new law or management regime. The Rio Declaration provides that the state "shall facilitate and encourage public awareness and participation by making information widely available." Education at the municipal level is particularly valuable in the Philippines because the local government has so much leeway in applying the PFC and in creating local ordinances that directly affect local fisherfolk. This is exemplified by the ability of municipalities to pass ordinances completely prohibiting commercial fishing within fifteen kilometers of the shore. For this to take place, communities first need to know that this opportunity exists and how they can promote that result.

Section 118 of the PFC requires the launch of a nationwide educational campaign to "help realize the policies and implement the provisions of this Code . . . [and] promote the principle of sustainable development." These provisions for education do not include a funding mechanism for implementation, thus requiring local governments to seek
private funding to further public awareness. In light of these obstacles, it is not surprising that there is no evidence of the development or application of a national education campaign. NGOs, however, have been very active in fostering awareness of coastal laws, as well as facilitating cooperation and training within the fisheries field.

Agenda 21 additionally suggests nations "[e]xpand multidisciplinary education," and "[i]ntroduce topics relating to the importance of marine living resources in educational curricula at all levels." The PFC requires the upgrading of fisheries schools and colleges, and the inclusion of fisheries conservation subjects in elementary and secondary school curricula.

Training also plays a role in determining how fishery resources will be allocated now and in the future. Access to training in new methods of fishing, new technologies, and opportunities for alternative livelihoods is essential for environmental rehabilitation and social stability in local communities. Agenda 21 provides a number of steps for States to take, including the expansion of "training and research on marine living resources" and the "creation of training opportunities at national and regional levels to support artisanal (including subsistence) fisheries." The PFC requires the provision of training for additional or supplementary livelihoods to municipal fisherfolk by the Department of Agriculture and the LGUs. The PFC further requires the creation of a National Fisheries Research and Development Institute ("NFRDI"). The NFRDI is the main research branch of the BFAR and is charged with providing "training and development of human resources in the field of fisheries." As of 2000, the NFRDI Governing Board, which should include representatives from both the municipal and commercial fishing sectors, had not yet been delegated and was comprised of an interim staff from existing BFAR offices.

The lack of interest on the part of the national government to effectuate training and education measures through the PFC has been compensated for by the extensive work of the Coastal Resource

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132 Israel & Roque, supra note 2, at 35.
133 This is particularly true of the Coastal Resource Management Project ("CRMP"). For information on CRMP, see http://www.oneocean.org (last visited May 2, 2002).
134 See Agenda 21, supra note 27, § 17.93(a), (c).
135 PFC, supra note 3, §§ 116, 117.
136 See Agenda 21, supra note 27, § 17.93(a), (b).
137 PFC, supra note 3, § 24.
138 Id. § 82.
139 FAO Fisheries Country Profile, supra note 1, at 5.
140 PFC, supra note 3, § 85(c).
141 FAO Fisheries Country Profile, supra note 1, at 5.
Management Project ("CRMP").\textsuperscript{142} The Department of Environment and Natural Resources ("DENR") implemented the CRMP in 1996 with the help of funding from the U.S. Agency for International Development ("USAID").\textsuperscript{143} CRMP was established to "catalyze coastal resource management to a threshold that expands nationwide and is sustained beyond the project."\textsuperscript{144} In order for the benefits of the project to survive its funding constraints, programs such as community participation, education, and training became critical elements of the program. CRMP has facilitated the cooperative management of coastal resources in a number of municipalities by encouraging cooperation between local fisherfolk, NGOs, national government agencies, and LGUs.\textsuperscript{145}

Other national efforts have included DENR's 1993 Coastal Environment Program ("CEP"),\textsuperscript{146} which aims to "uplift the socioeconomic conditions of the country's coastal population through the protection of the environment and the implementation of strategic interventions on resource assessment, community organizing, information and education campaigns, and the identification and establishment of impact sites and seascapes."\textsuperscript{147}

The existence of these programs should not alleviate the national government's responsibility to implement the educational and training provisions in the PFC. While there are provisions in the PFC for both training and education, funding for implementation and evidence of institutional development towards these goals is lacking. If the Philippine government is committed to prioritizing municipal fisherfolk and fostering sustainable development, they must also be committed to promoting public awareness and creating opportunities to learn new skills and trades.

\section*{B. Interpretation and Implementation of the PFC}

There is evidence of implementation of the PFC's objectives at the national and local level, including recently enacted national legislation, local enforcement and implementation measures, and the development of institutional bodies to promote the tenets of the PFC. However, while there are some signs of progress at both the national and local levels, it is difficult to discern how local government and commercial fisheries have been affected by the PFC.

\begin{thebibliography}{9}
\bibitem{CRMP} Information on the CRMP is available at http://www.oneocean.org (last visited Mar. 18, 2002).
\bibitem{USAID} For information on USAID, see http://www.usaid.gov.
\bibitem{CRMPAboutUs} See CRMP, About Us, at http://www.oneocean.org (last visited Mar. 18, 2002).
\bibitem{LEGALGUIDEBOOK} \textit{Id.}
\bibitem{LEGALGUIDEBOOK2} See \textit{LEGAL GUIDEBOOK}, supra note 38, at 142.
\end{thebibliography}
1. National Legislation

National legislation addressing fisheries management has been sparse since the adoption of the 1998 PFC. The DENR passed Administrative Order No. 2001-17 ("DAO 17") in June 2001 to deal specifically with the delimitation of municipal waters.\(^{148}\) Because it affects municipal water boundaries, DAO 17 sheds light on the interpretation and implementation of the PFC's provisions for prioritizing municipal fisheries.

DAO 17 has been subject to heated controversy because of its application of the archipelagic principle,\(^{149}\) which effectively extends municipal water boundaries to fifteen kilometers from the outlying islands (not to exceed thirty kilometers from the mainland), creating larger areas of municipal water.\(^{150}\) Using this interpretation, outlying islands and islets create their own municipal waters; they are not limited to the fifteen-kilometer extension from the mainland. In effect, DAO 17 gives municipal fishers and municipal governments control over a much greater area of water.\(^{151}\) Thus, DAO 17 promotes the interests of small-scale fishing communities by extending the restrictions placed on commercial fishing in municipal waters to a greater area.

The application of the archipelagic principle is based on Section 123 of the PFC, which entrusts the delimitation of municipal water boundaries to the National Mapping and Resource Information Authority ("NAMRIA").\(^{152}\) The delineation of boundaries has been recognized as an essential step toward effective resource management, and NAMRIA is thought to have the scientific and technical expertise for this task.\(^{153}\) The PFC also provides a definition of municipal waters used by the DENR to support the application of the archipelagic principle.\(^{154}\) The overall effect of DAO 17 is consistent with the stated objectives of the PFC in giving more resource use rights and discretion to local governments to promote the interests of municipal fisherfolk.
DAO 17 has been met with extensive criticism from groups of commercial fishermen. Additionally, the House Committee on Appropriations indicated a lack of support for DAO 17 in September 2001 by passing a resolution recommending its revocation. Their main contention was that the PFC's definition of offshore islands as "within 15-km from the shoreline" should be interpreted to prohibit the extension of municipal waters past fifteen kilometers of the mainland. They also contended that the use of NAMRIA to make this determination was ill-conceived and inappropriate. These contentions have been ignored by the Department of Justice, which issued a statement rejecting the House Appropriations Committee's claims that DAO 17 is contrary to the PFC's provisions for NAMRIA delimitation.

While DAO 17 has been vigorously supported by NGOs and small-scale fisherfolk, there has been an air of impatience surrounding its enactment because it is viewed as the first and only concrete national step toward manifesting the intentions embodied in the PFC. The debate and controversy surrounding the passage of DAO 17 indicates the fragility and vulnerability of the PFC's objectives, but the success of its promulgation shows determination on the part of the government to support municipal fishing interests.

Other related national legislation is limited to four Fisheries Administrative Orders passed by the Department of Agriculture on August 21, 2000 "designed to curb overfishing and preserve marine life in coastal waters." These orders specifically target the reduction of IUU fishing and support the PFC provisions limiting active-gear fishing, night-fishing gear, and muro-ami fishing.
2. **Local Action**

While some NGOs allege that no progress has been made since the inception of the PFC, there is some evidence of improvement at local levels. While evidence of municipal ordinances supporting PFC provisions is lacking, there are indicators that action is being taken. Several municipal ordinances have been created that support the creation of marine protected areas. Unfortunately, while over 400 of these have been created, very few have been maintained after donor support was terminated.

Since 1978 local government officers have been trained and charged with the responsibility of patrolling municipal waters. Bantay Dagat is the practice of sea patrol for fishing violations by volunteers and local officials. This practice has been strengthened by PFC provisions, specifically the creation of FARMCs. The codification of restrictions on municipal fishing and the authority placed in LGUs to provide enforcement has helped to legitimize Bantay Dagat. Previously, only warnings and lectures could be issued to violators, but punishments provided for in the PFC offer stricter enforcement potential. The strength of the enforcement team is largely dependant on the commitment of the LGU to tackle municipal fishery issues. Lack of resources and influential commercial interests can weaken the resolve of local officials to enforce the PFC’s provisions.

Local action has been seen in some areas by the placement of buoys and floating markers to delineate the municipal boundary “in accordance with the 1998 Fishery Code.” A drop in the number of violators was also realized in Negros Oriental where Bantay Dagat members patrolling municipal waters increased from four to twenty over four years. It is also apparent that in some areas local governments are being issued boats by

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162 Unity Statement, *supra* note 159.
164 *Id.* at 29.
167 *Id.*
168 *Id.*
169 *Id.*
171 *Id.*
the national government for patrol and enforcement of fisheries regulations.\textsuperscript{174} It may be argued that these recent actions are a result of added pressure on the local government or increased community awareness stemming from the adoption of the PFC.

Similarly, in General Santos City, issuance of commercial fishing licenses were substantially reduced in 2001 from the previous year.\textsuperscript{175} This may indicate that local governments are applying their understanding of the PFC and the need for resource management to limit commercial use of municipal waters.

Forty-two FARMCs have been established in the coastal towns of the Ilocos region to monitor use of municipal waters.\textsuperscript{176} As mentioned above, however, FARMCs may create impediments to local action if there are conflicts between the LGU and the local FARMC.\textsuperscript{177}

IV. Conclusion

The Philippine Fisheries Code provides a stable, but occasionally untenable, framework to enable the sustainable development of fishery resources, as well as to promote the interests of municipal fisherfolk. The PFC takes a critical first step towards its laudable goals and makes an effective statement that the priorities of the Philippine government are in the long-term social and environmental health of its coastal areas. The prioritization of municipal fisheries is clearly intended and can potentially be realized.

There are, however, areas within the PFC that could be amended to further these objectives and prevent commercial interests from circumventing restrictions of the PFC. The ability to use municipal waters for commercial fishing may negatively impact resource management and allocation to municipal fisherfolk. If LGUs are ill-equipped to prevent commercial fishing in municipal waters, it may be necessary for the national government to clearly prohibit commercial use of near-shore waters. At the same time, the ability of local governments to make decisions for their municipalities is a very powerful tool and may foster more community involvement and more efficient implementation and enforcement. The


\textsuperscript{176} \textit{Lingayen Gulf Buys Mark Fishing Areas, supra} note 172.

\textsuperscript{177} \textit{See discussion supra} Part III(A)(3).
devolution of responsibility to local governments may pose difficulties for effective implementation and long-term enforcement if national oversight and coordination is not ensured. By strengthening the institutions delineated in the PFC and encouraging the establishment of regional management organizations, the obvious pitfalls of local governance may be avoided.

Finally, education and training measures must be improved to secure the long-term health of the environment and of the communities depending on near-shore fishery resources. If the national government chooses to devolve the majority of management responsibility to the local governments, they cannot leave the LGUs without institutions to facilitate local implementation and enforcement. Funding seems to be a primary obstacle to implementation and enforcement at all levels. Again, coordination and oversight may serve to alleviate the need for more funding by streamlining the necessary institutions and avoiding overlaps.

Although few steps have been taken nationally in response to the PFC, DAO 17 reflects a continued national commitment to the needs of municipal fisherfolk. Information on local ordinances is sparse and, as presented here, may not provide an adequate picture of the involvement of LGUs in responding to responsibilities divested through the PFC.

In order to realize the PFC’s ultimate goals of attaining food security and alleviating poverty, the government needs to continue to enhance its commitment to municipal fisherfolk. This can be done most effectively by coordinating local efforts to avoid overlap of implementation measures, providing funding for public awareness, training, and enforcement, and, finally, ensuring that commercial fishing will not take place in already depleted municipal waters. These measures are all possible within the established framework of the PFC, but will require a new commitment to strengthen key sections supporting local government and local use of municipal waters for livelihood and subsistence.