

Discussion Note

Preferential Access Rights of Small-scale Fisheries to the EEZ: A Win-Win Option for Equity with Effective Fisheries Management?

Abstract

The small-scale and artisanal fisheries sector is an important source of employment, income and food security, particularly for the poor, in many Asian countries. This discussion note explores the policy space for recognizing the preferential rights of small-scale and artisanal fisheries in Asia to fishery resources of the exclusive economic zone (EEZ), within the framework of the 1982 United Nations Convention on the Law of the Sea (UNCLOS or, now more commonly, LOSC), the 1995 United Nations Fish Stocks Agreement (UNFSA) and the 1995 FAO Code of Conduct for Responsible Fisheries (CCRF). It reviews the status of marine fishery resources and fishery conservation and management measures in the Asian context and proposes workable options for achieving greater equity with effective fisheries management.

Introduction

Although the LOSC that confers preferential rights to the coastal States to their respective EEZs was signed only in 1982, a number of coastal States, including Asian ones, had already by then extended their territorial seas and established EEZs. While Bangladesh was the first country—in 1974—to do so in the Asian region, China was the last—in 1998. All coastal States in Asia, with the exception of Cambodia and Thailand, have by now ratified the 1982 LOSC. The coastal States have the sovereign rights, *inter alia*, to explore and exploit, and conserve and manage the natural resources, including living resources, of the EEZ under the said Convention.

Over the last three decades since the onset of the EEZ regime, the total world marine capture fishery production has increased from 57 mn tonnes in 1975 to 84 mn tonnes in 2005. The share of Asia,

including China, in total world marine fish production increased from 40 per cent to 47 per cent. However, the share of Asia, excluding China, in world marine capture fishery production decreased from 34 per cent to 30 per cent in the same period.

Asia also accounts for the largest share of employment in world fisheries. Nearly 88 per cent of an estimated 41 mn people working full-time or otherwise as fishers or fish farmers in the world were in Asia (2004 figures). This included about 85 per cent of an estimated 30 mn people employed as fishers and nearly 96 per cent of 11 mn people employed as fish farmers (FAO 2007). The vast majority is employed in small-scale and artisanal fisheries.

The world fishing fleet comprised about 4 mn units at the end of 2004, of which 1.3 mn were decked vessels of various types, tonnage and power, and 2.7 mn were undecked or open boats. While almost all decked vessels were mechanized, only about one-third of undecked vessels were powered, often with outboard motors (FAO 2007). About 86 per cent of decked vessels, 50 per cent of powered undecked vessels and 83 per cent of total non-powered vessels are concentrated in Asia (FAO 2005). Asia, thus, accounted for the largest share of fishing units in the world, although this may not imply that Asia also accounts for the largest share of fishing capacity in the world.

Status of Marine Fishery Resources and Fisheries Management in South and Southeast Asia

The most recent information on the state of marine fishery resources and fisheries management is available in the *Review of the State of World Marine Fishery Resources*, published by the FAO in 2005. In the western central Pacific region (FAO Statistical Area 71), where countries such as Vietnam, Thailand, Cambodia, Indonesia and the Philippines are located, shrimp resources were shown to be heavily exploited in the Gulf of Thailand, in the

north coast of Java in Indonesia, and in the Manila Bay in the Philippines, due to the increasing use of efficient fishing gear. Bottom-trawling has been singled out as responsible for overexploitation of demersal resources in the Gulf of Thailand and for the decline of shrimp stocks in the western part of the Arafura Sea. Gear and area restrictions have been identified as common management measures. Malaysia is believed to be more advanced than the rest of South and Southeast Asia when it comes to fisheries management (FAO 2005a).

There are several regional bodies dealing with fishery issues in the western central Pacific such as the WorldFish Centre, Southeast Asian Fisheries Development Centre (SEAFDEC), the Association of Southeast Asian Nations (ASEAN) Fisheries Working Group, and the Asia-Pacific Economic Co-operation (APEC) Fisheries Working Group. However, none of them has a mandate for regional fisheries management (FAO 2005a). The Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean (WCPFC) was established in 2004. However, none of the ASEAN countries, except the Philippines, has become a member.

In the northern areas of the eastern Indian Ocean (FAO Statistical Area 57) where countries such as India (eastern seaboard), Sri Lanka, Bangladesh, Myanmar, Thailand, Malaysia (western seaboard) and Indonesia (western Sumatra, Malacca Strait and southern Java) are located, multispecies and multigear fisheries have been dominating the marine capture fisheries scene. Of 54 stocks or species groups fished in the region, the status of 33 is known, of which 7 are fully exploited or overexploited. The overexploitation of fishery resources in the northern areas of the eastern Indian Ocean has been attributed to population pressure in the coastal areas. The region also suffers from poor monitoring, control and surveillance (MCS) systems at the national level. The main management measures currently employed are zoning according to fishing gear, and area closures (FAO 2005a).

In the western Indian Ocean (FAO Statistical Area 51), especially in the eastern Arabian Sea, comprising

Pakistan, India and the Maldives, reported fish catches have been more or less stable since 1997. The large number of small fishing vessels is believed to make it difficult to implement fisheries management measures. The current measures are reported to mainly comprise zoning for different fishing gear, and seasonal closures. Fishing intensity is believed to be high, and there is believed to be little active regulation of fisheries. The Indian Ocean Tuna Commission (IOTC), established in 1993 under Article XIV of the FAO Constitution, has been mandated to manage tuna and tuna-like species in the western and eastern Indian Ocean, and its members include India, Pakistan, Sri Lanka, Malaysia, Thailand, and the Philippines. Indonesia is a co-operating non-contracting party of IOTC.

1982 LOSC and Coastal Fishing Communities

Under the 1982 LOSC, coastal States are required to determine the allowable catch of the living resources in their EEZs. By requiring coastal States to determine allowable catch in their EEZs of living resources, the 1982 LOSC also recognizes limits to the exploitation of fishery resources. This would involve estimating the size of each species group that can be fished. At a macro-level, therefore, there is an implicit recognition of output limits towards conservation and management of fishery resources.

The coastal States are further required to adopt conservation and management measures for such resources. According to Article 61, coastal States are to determine the allowable catch in their EEZs and to ensure that “the maintenance of living resources in the exclusive economic zone is not endangered by overexploitation”. The coastal States are expected to achieve this through “proper conservation and management measures”. Regarding populations of harvested species, conservation and management measures are to be designed to maintain or restore such species, as well as species associated with or dependent on them, at levels that can produce the maximum sustainable yield. The Convention requires that measures for the conservation and management of living resources of the EEZ also take into account the economic

needs of coastal fishing communities, which is an indirect recognition of equity considerations within the 1982 LOSC framework for conservation and management measures.

Article 6.18 of the 1995 CCRF recognizes the central role of small-scale and artisanal fisheries in providing the economic needs of coastal fishing communities in the realms of employment, income and food security. It goes one step further by requesting States to protect the rights of fishers and fishworkers, especially in subsistence, small-scale and artisanal fisheries, to a secure (“free from fear or anxiety”) and just (“equitable”) livelihood (“means of living”) (*parentheses added*). States are further requested to protect the rights of subsistence, small-scale and artisanal fishers to preferential access to traditional fishing grounds and resources in the waters under their national jurisdiction.

Considering that the livelihood of small-scale and artisanal fishers is primarily from fishing activities, putting Article 6.18 of the 1995 CCRF together with Article 61.3 of the 1982 LOSC would suggest, *inter alia*, that protecting the rights of fishworkers in subsistence, small-scale and artisanal fisheries to a secure and just livelihood and to preferential access to traditional fishing grounds and fishery resources in the EEZ, is an important consideration that States have to keep in mind while adopting “proper conservation and management measures” for the maintenance of living resources in the EEZ. Further, in an indirect reference to subsistence, small-scale and artisanal fisheries, Article 7.6.6 of the 1995 CCRF underscores the importance of recognizing traditional practices, needs and interests of indigenous peoples and local fishing communities while deciding on the use, conservation and management of fishery resources.

In the South and Southeast Asian region, only Indonesia (2004), Vietnam (2003), Philippines (1998), Maldives (1987), Malaysia (1985), and Sri Lanka (1996) have so far developed an EEZ-level fisheries legislation to manage the national fishing industry. Several of the South and Southeast Asian countries, such as India, Pakistan, Bangladesh, Myanmar, Thailand and Cambodia, are

still in the process of developing similar fisheries legislation.

Extending preferential access to the EEZ to small-scale and artisanal fisheries is an obligation yet to be explicitly recognized by many coastal States, in spite of the significant presence of small-scale and artisanal fisheries in the EEZs of many Asian coastal States. Currently, in countries such as Cambodia, Malaysia, Thailand, Bangladesh, India and Pakistan, such access is legally recognized only to the territorial waters but not to their EEZs. Among Asian countries, only Indonesia has explicitly legislated preferential access to small-scale fisheries to the entire fisheries management zone (FMZ) that includes the Indonesian territorial waters and the EEZ (see box on next page).

There are, however, provisions in national fishing policy to diversify fishing fleet from territorial waters to the EEZ in countries like India, Malaysia, Vietnam and Sri Lanka. However, this is to provide a ‘safety valve’ for excess fishing capacity within territorial waters. There are also isolated initiatives to selectively recognize traditional fisheries in the EEZ and beyond. The Philippines, for example, has recently (2006) legislated the traditional handline fishing method, targeting tuna, in their EEZ and beyond, to be used in conjunction with traditional fishing vessels that are 60 gross tonnage (GT) and below.

Options for Conservation and Management Measures in Marine Fisheries

What emerges from the review of the state of marine fishery resources in FAO Statistical Areas 71, 57 and 51 in the realms of fisheries management in South and Southeast Asia is the need to regulate fishing effort, to improve gear selectivity for better conservation of fishery resources, and to reduce demographic pressure in coastal waters.

Bottom-trawling has been cited in the FAO review as contributing to overfishing pressures in several parts of Asia. There should be concerted effort, in particular, to eliminate all forms of bottom-trawling that have huge negative impacts on the conservation of fishery resources as well as on peaceful access to fishery resources of fishers

Indonesia: preferential access to small-scale fisheries

Indonesia is the largest archipelagic State in the world. Its sovereignty extends to the waters enclosed by the archipelagic baselines. The Indonesian territorial waters comprise the Indonesian territorial seas, with the archipelagic and internal waters. The Indonesian territorial seas are defined as the sea belt having the width of 12 nautical miles measured from the Indonesian archipelagic baseline. With 460,000 marine fishing vessels, Indonesia probably has one of the largest marine fishing fleets in the world, although nearly half these vessels are non-powered. There are 130,000 boats powered by outboard motors or long-tails, and 111,000 powered by inboard engines. The total number of vessels above 50 GT, however, is only about 4,600, of which over 560 vessels are above 200 GT. There are over 1 mn full-time fishers in Indonesia catching over 4 mn tonnes of fish from the marine waters (DKP,2004; FISHSTAT, FAO). There is, however, no estimate of total fishing capacity in terms of GT or kilowatt/hour.

Indonesia legislated one of the most comprehensive fisheries laws to emerge from the developing world in October 2004. It came into effect two years later. It takes into account the present and future development of fisheries, which includes capture fisheries and aquaculture in the Indonesian EEZ, its archipelagic waters and in its internal waters. The new legislation is fairly broad in scope and includes issues such as pollution,

biological diversity and ecosystem dimensions of fisheries.

The central thrust of the new fisheries legislation is on fisheries management. The goals of fisheries management include improving the living conditions of small-scale fishers and fish farmers, and optimum utilization of fishery resources. The Act also recognizes the role of customary laws and local wisdom as well as community participation in fisheries management. Any individual, except small-scale fishers and fish farmers, who derives 'direct benefit' from the fishery resources within the fisheries management zone (FMZ) of Indonesia, would be subject to payment of fees and levies that would be used for "fisheries development and activities to ensure sustainable fishery resources and the environment".

Several provisions have been made for the 'empowerment' of small-scale fishers and fish farmers. The Indonesian government has taken the responsibility to finance such empowerment programmes. Small-scale fishers and fish farmers, for example, would be provided with subsidized credit to meet capital and operating costs. Small-scale fishers could fish anywhere in the FMZ; however, they have to comply with conservation regulations. They have also to participate in sustainable fisheries, and meet food-safety standards. Although exempt from licensing requirements, they have to register with the local fisheries agency (under the provincial or district administration). 3

who are dependent on passive, or more selective, non-trawl fishing gear. So far, only Indonesia has proscribed bottom-trawling in certain parts of its FMZ. The implementation of the ban, however, is reported to be not very effective.

Although overcapacity is not an issue highlighted in the FAO review (FAO 2005) of South and Southeast Asia, there are quite a few reports cautioning about the need to reduce fishing capacity in the Asian region. The issue of overcapacity in fishing fleets and its reduction to levels commensurate with the long-term sustainable use of fishery resources has been highlighted since the 1990s. Problems of inadequate data to assess whether or not fishing capacity is proportionate to the available fishery resources, however, remain.

As FAO points out, "statistics on total tonnage and total power of world fishing fleets are not available on a global basis. Information on the number of fishing vessels and boats is largely derived from national registers and other administrative records, and may, therefore, include some non-operational units. At the same time, national administrative records often exclude smaller boats whose registration is not compulsory and/or whose fishing licences are granted by provincial or municipal authorities. Data made available to FAO by national respondents concerning these smaller fishing boats are often estimates; in such cases, respondents frequently keep the numbers constant over the years. In addition, reporting practices for

fishing fleets operating in freshwaters vary among countries, with only a few countries making a clear distinction between marine and freshwater fleets. In view of all these factors, the *currently available information has only limited value for monitoring and determining global trends in fishing capacity.*" (FAO 2007) (*emphasis added*).

Due to paucity of data and methodological inconsistencies, there does not seem to be a proper assessment of fishing capacity, worldwide, including in Asia. As in the case of fishing capacity, knowledge of the status of fishery resources is also insufficient, despite the rapid and continued development of fisheries in the Asian region. Many management decisions have been taken on an *ad hoc* basis (FAO 2005a).

In the absence of reliable information about fish stocks and fishing capacity, perhaps the most pragmatic way to conserve and manage fishery resources is through the adoption of the precautionary approach. Several measures can be considered from the fishing-end of the spectrum to ensure that fisheries are not overexploited. States should exercise caution when information regarding total allowable catch (TAC) is uncertain, unreliable or inadequate, by setting catch and effort limits until sufficient data is generated to assess the impact of fisheries on the long-term sustainability of fish stocks. Development of fisheries should be after establishing conservation and management measures based on such an assessment (Article 6 of the 1995 UNFSA; Article 7.5.4 of the 1995 CCRF).

In this context, promoting selective small-scale and artisanal fishing techniques and practices using smaller quantities of gear in greater diversity, which have potentially less negative impacts on fish habitats, and that employ more people per unit of output of fish, should be considered a significant option within the framework of the precautionary approach in data-deficient fisheries. Recognizing responsible small-scale, artisanal and subsistence fisheries in itself is a necessary condition towards adopting conservation and management measures.

Fishing units—a combination of fishing vessels, their propulsion, fishing gear, including gear paying/hauling

devices, and other accessories assisting in navigation and fish detection—that are larger in size should be considered only after progressively exhausting the possibility of employing smaller fishing units in conjunction with selective fishing gear and techniques, in the entire range of distribution of fish stocks, with due consideration for safety of fishing operations as well as for the safety and better working conditions of fishers on board such units.

Guaranteeing preferential access to small-scale and artisanal fisheries within a precautionary-approach framework can also contribute to vital equity considerations in many Asian fisheries, especially to provide the needs of coastal fishing communities. Considering that Asia, particularly South and Southeast Asia, has the largest share of fishers' population in the world—nearly 90 per cent—taking into account the economic needs of coastal fishing communities while undertaking conservation and management measures, acquire special significance. The presence of a large number of part-time and occasional fishers further complicates the picture.

Further, from the perspectives of both conservation and management, and equity, technological parity (meaning equivalence) in fishing power in different fishing zones should be adopted, particularly in poorly managed fisheries, without compromising on the safety of fishers and fishing operations. Thus, fishers in different categories of fishing, for example, pelagic and demersal, should employ fishing power of low intensity that fall within a narrow band in relation to the length of the fishing vessel, horsepower, fish-storage capacity, and quantity and type of fishing gear, and other fishery-related and navigational accessories. This will minimize differentiation within each fishing subsector.

In addition, from a conservation and management point of view, the proper adoption and implementation of input-control procedures—restrictions on gear, engine, size of the vessel, fishing area, and fishing time—in combination with effective monitoring, control and surveillance (MCS) and enforcement measures, and provision of intelligent redeployment and alternative employment to coastal fishers, could significantly address the problems that

have so far been identified in better fisheries management in the region. Gathering reliable data of fishery resources, fishing effort, fisheries output and fishing populations should also be undertaken. Within the framework of input-control measures, non-selective and destructive fishing gear and practices should be proscribed in all types of fishing.

Together with greater recognition of small-scale and artisanal fisheries, appropriate regional and national mechanisms at the level of the EEZ and the high seas, especially with regard to highly migratory fish stocks, on the one hand, and national/subnational mechanisms at the level of the EEZs, on the other, should be created or strengthened. The latter mechanisms could be centralized or decentralized, or devolved to the level of fishing communities, as the case may be. Effective implementation of MCS and enforcement measures are also important, which could be considered under community control as well.

Conclusion

In South and Southeast Asia, recognition of responsible, selective and labour-intensive small-scale and artisanal fisheries can—within the framework of a precautionary approach consistent with the 1995 UNFSA and 1995 CCRF—significantly contribute towards meeting the obligation of coastal States to manage their marine fishery resources without overexploitation. Recognition of the preferential rights of small-scale fisheries to the EEZ can go hand in hand with the elimination of most destructive forms of fishing techniques and practices. Together with input-control measures and elimination of destructive forms of fishing techniques such as bottom-trawling, it is held that responsible small-scale and artisanal fisheries can deliver on the twin goals of equity and effective fisheries management—two important considerations for the sustainable development of fishery resources in the world, particularly in Asia. 3

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