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MANAGING FISHERIES CONFLICTS IN SOUTHEAST ASIA

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ABSTRACT

The fisheries sector is a vital sector for Southeast Asian (ASEAN) nations as it provides a source of protein and employment to the people. However, the ASEAN fisheries sector also encounters several conflict issues. Fisheries conflicts are common in Southeast Asian nations and are dangerous if left unaddressed. Such conflicts can destroy the livelihoods of fishers and negatively affect food security and the fishing environment. In this paper, fisheries conflicts cases in ASEAN are used to examine conflicts faced by fishers. The objective is to understand the sources of conflicts and recommend approaches for reducing or eliminating the conflicts to ensure the sustainability of fisheries resources in the ASEAN region. The main findings of this paper show that the principal sources of conflicts in ASEAN are disagreement of fishers with the allocation of resources by the government and competition among fishers for the limited fisheries resources. Community-based management or co-managed fisheries have the potential to empower communities in decision making to solve the conflicts and ensure fisheries rights are allocated equitably.

Keywords: Fisheries conflicts, Southeast Asian nations (ASEAN), sustainability of fisheries resources, community-based fisheries management.

INTRODUCTION

Fisheries conflicts occur when there is no cooperation between the various players in the sector (FAO, 1998). Fisheries conflicts are common in developing countries like Thailand, Cambodia, Bangladesh, the Philippines, and India (Salayo et al., 2006). Conflicts often occur in Southeast Asia due to misallocation of access rights to the limited resources by the state (Salayo et al., 2006) and institutional and market failure (Ahmed et al., 1998; Torrell & Salamanca, 2002). Fisheries conflicts are dangerous as they destroy the livelihoods of fishers and negatively affect food security and the fishing environment, crucial to the fishers. Fisheries are essential as they are a source of food for many developing countries, especially in Southeast Asia. There is a biological decline of fish in Southeast Asia (ASEAN) due to the commercialisation of fish in the region. Billions of dollars can be earned from fisheries industries. Therefore, competition for fisheries resources in Southeast Asian nations is intense,

leading to fisheries conflicts. There are many negative consequences if fisheries conflicts are left unmanaged or unresolved. The conflicts can affect the security of food for consumers, thus affecting the livelihoods of fishers and the fisheries environment. Worse still, fisheries conflicts can even turn into armed conflicts and risk the lives of enforcers or fishers.

This paper attempts to draw on a few cases in ASEAN and explore ways to reduce fisheries conflicts and ensure fisheries sustainability in the region. This paper is divided into six sections. The first section introduces the concept and definition of fisheries conflict. The second section discusses the condition of fisheries in Southeast Asia. The third section describes the types of fisheries, while the fourth discusses the theories related to fisheries conflicts. Solutions to manage the conflicts arising from ASEAN fisheries are suggested in section five, and the last section is the conclusion that mainly discusses the future prospects of fisheries in ASEAN.

SOUTHEAST ASIAN FISHERIES

There are ten countries in the Association of Southeast Asian Nations (ASEAN), namely Malaysia, Thailand, Vietnam, Indonesia, the Philippines, Laos, Myanmar, Brunei, Singapore, and Cambodia. ASEAN has a current population of 625 million people. ASEAN is rich in fisheries resources and is a major producer of fish and fisheries products. Six of the top ASEAN fish producing nations accounted for 19 percent of the global fish production (FAO, 2020). The six countries are Indonesia (8 percent), Vietnam (4 percent), the Philippines (2 percent), Thailand (2 percent), Malaysia (2 percent), and Myanmar (1 percent). The fish consumption for ASEAN countries is high as Asia is a very high fish consumption region. The average fish consumption in the Asian region is 24.1 kilograms per capita per year (FAO, 2020). Fish provides the main source of animal protein to communities in some coastal countries, such as the Philippines and Indonesia. Fishing provides livelihoods for millions of families in ASEAN.

However, there are some challenges in ASEAN as well. ASEAN experiences high rates of population growth, uneven economic development, and uneven use of resources. The technological challenges are also putting enormous pressure on the region's coastal resources. Some countries in ASEAN also have a high poverty rate. These countries are, for example, Myanmar (about 25 percent of the people are poor), Laos (23.6 percent poor), and the Philippines (21.6 percent poor) (ASEAN Secretariat, 2019). The population in ASEAN is expected to reach 650 million people in the year 2020. The high population growth in ASEAN means high demand for fish as fish is an important source of nutrition and serves as a primary source of income generation for the people in the region. Based on the recent trends, production from marine capture fisheries is not expected to keep up with the demand, as most of the nearshore fisheries in ASEAN are overfished. This scenario is causing concerns for food security in the region. The increasing demand for fish from the expanding population will put more pressure on the already depleted coastal and inshore fishery resources. The competition for limited resources leads to fisheries conflicts in the region.

TYPES OF CONFLICTS

There are several types of conflicts in Southeast Asian (ASEAN) nations. It is important to understand that as pointed out by the report of invest in ASEAN, the conflicts in the region account for 25 percent of the global fish production (Invest in ASEAN, 2021). Most countries in the world depend on the ASEAN catch for their fish supply. For example, more than fifty percent of the fish demand of Australia is sourced from ASEAN countries (Invest in ASEAN, 2021). The increase in fish caught to meet the demand of fish globally, coupled with competition among small-scale fishers for the declining fisheries resources along the coastal region in ASEAN, leads to conflicts and social tensions among different groups of fishers (Pomeroy et al., 2007). Given that ASEAN is a big player in global fish production and there are ten countries in ASEAN, it is important to understand the different types of conflicts in ASEAN before solutions can be suggested for each nation. Each country is unique in nature and has its own kinds of fisheries conflicts. Basically, the types of fisheries conflicts in ASEAN can be divided into three, namely gear conflicts, location conflicts, and external conflicts.

Gear conflicts

Gear conflicts exist among fishers using different types of gear. Gear conflict is the main source of many fisheries conflicts (Viswanathan et al., 2003). One of the most severe gear conflicts takes place between the large-scale and small-scale fishers. For example, conflicts arise between the large-scale commercial anchovy fishers and the multi-species small-scale fishers in Thailand. The large-scale commercial fishers in Thailand have more financial resources and better fishing gear than small-scale ones. The large-scale fishers compete with the small-scale fishers for the rights of access to designated zones. Moreover, the large-scale fishers use the light luring gears and other modern fishing gears to catch more fish and leave very little resources for the small-scale fishers. Thus, the welfare of the small-scale fishers is negatively affected. The main drivers of the fisheries conflicts between the large-scale commercial fishers and the small-scale fishers in Thailand are the weak fisheries governing institutions and economic motivations. The rich commercial anchovy fishers often win the challenge against the government ban on their gears to catch fish because of the weak governing institutions in Thailand.

Large-scale fishers that use trawlers also often encroach into the waters nearer the coast where the small-scale, artisanal fishers (non-trawlers) are supposed to fish. This happens because the waters are open-access, although some countries, such as Malaysia and the Philippines, are off-limits to such large-scale fishers. The large-scale fishers have better fishing gears that harvest most of the fisheries resources in the coastal waters and leave very little for the small-scale fishers to harvest. This, therefore, leads to conflicts between trawlers and non-trawlers.

Location conflicts

Location conflicts occur because too many fishers are competing for fish in the same fishing ground. This normally happens in countries with many small-scale fishers, such as the Philippines and Indonesia. For example, in the Philippines, many small-scale coastal fishers compete for fisheries resources in Iloilo and Cebu provinces in the Visayan Sea.

External conflicts

External conflicts refer to the conflicts due to the intrusion of fishers from other countries into the territorial waters of a fishing country. Conflicts such as this can be found in Malaysia and Indonesia (Lee et al., 2020b). In Malaysia, Vietnamese trawlers often intrude into the waters of Sarawak. It was reported that 1,155 Vietnamese fishermen were detained in Malaysian territorial waters during the twelve years period from 2006 to 2017. The Vietnamese vessels are often bigger, and the skippers and crew have more long-term fishing experience in distant sea waters than the local Malaysian fishers. This competition for fisheries resources causes tensions between foreign and local fishers.

Conflicts with authority

Conflicts can also happen between local fishers and the authorities, especially the government. This occurs because the fishers feel they are being unfairly treated under the government policies in force, leading the fishers to come into conflict with the local government. A significant example was in the Philippines in the year 1998 when the large-scale fishers protested against the government over the perceived unfairness of the fishing zones. The implementation of the 1998 Fisheries Code prevented the large-scale fishers from fishing within 15km from the shoreline. The large-scale fishers felt the Code was unfair because resources were abundant within 15km of the shoreline.

Access conflicts

Access conflicts take place when there is a conflict between the small-scale and large-scale fishers over access to fishing rights. Access conflicts occur in three ASEAN countries, namely Cambodia, the Philippines, and Thailand. In these countries, the community fishers compete with the large fishers over access to fishing rights.

Conflicts Arising from Poor Governance

Conflicts can arise between fishers and local authorities due to poor governance. This type of conflict takes place in the Philippines and Thailand. In the Philippines, for example, the fishers have conflicts

with the fisheries authorities over weak enforcement of illegal fishing. Moreover, the small-scale fishers in the Philippines also have a disagreement with the local enforcement authorities over their favouritism for the commercial fishers.

Conflicts between Fishers and Other Users of the Aquatic Environment

The last type of conflict is the conflict between the fishers and other users of the aquatic environment. This type of conflict exists in Cambodia, the Philippines, Thailand, and Malaysia. The fishers compete with the lowland farmers over access to and use of waters in Cambodia. In Thailand, the rice farmers also compete with the prawn breeders over resource use. Examples of conflicts in ASEAN are shown in Table 1.

Table 1
Examples of Types of Fisheries Conflicts in ASEAN

Types of Fisheries Conflicts	Sub-Division	Countries	Explanation
Gear	Trawler fishers vs non-trawlers (small-scale fishers)	Malaysia The Philippines Indonesia	This type of conflict is common in almost all the countries of Southeast Asia
Spatial/ Location	Zoning regulation conflicts	Thailand The Philippines	Large vs. small-scale fishers over rights in designated zones Small-scale fishers vs. regulatory bodies over zoning of fishing grounds
Political and social dimension	Ethnic conflict	Malaysia The Philippines	Chinese fishermen vs small-scale Malay fishermen Stiff competition between artisanal and commercial fishers over access to fishing zones
Conflicts with foreign parties	Conflicts between local fishermen and foreign fishermen	Malaysia Indonesia	Encroachment by illegal Vietnamese and Thai fishers into Malaysian territorial waters Illegal fishing vessels from Vietnam encroaching into Indonesian waters
Access conflict	Conflicts over access rights	Cambodia The Philippines Thailand	Community fishers vs large commercial fishers Small-scale fishers vs commercial fishers Large-scale fishers vs small-scale fishers
Conflicts arising from poor governance	Conflicts between fishers and local authorities	Cambodia The Philippines Thailand	Fishers vs fisheries authorities over weak enforcement on illegal fishing Small-scale fishers vs enforcement authorities over favouritism shown to commercial fishers Commercial fishers have conflicts with the authorities over inefficient enforcement of control over the number of fishing vessels
Conflicts between fishers and other users of the aquatic environment	Conflicts between fishers and other users of the aquatic environment	Cambodia The Philippines Thailand	Fishers vs lowland farmers over access and use of waters. Fishery and other sectors such as tourism and construction sectors

Source: Adapted from Salayo (et al., 2006)

SOURCES OF CONFLICT

There are many sources of conflict. The first source of conflict is the disagreement of fishers with the government's allocation of resources to them. When the government sets the zoning area and allocates a time period to different fishers in order to separate them, some fishers might not agree to the government's allocation of resources. This will then lead to conflicts between the government and the fishers. There are normally two consequences of the conflicts. The first consequence is that the fishers will protest against the government. The second consequence is that the fishers will not follow the regulations and compete with those located in other zoning areas.

The second reason for conflict is the limited resource. The fishers compete with other fishers because of limited fisheries resources in the waters. The limited fisheries resource is caused by the inefficient use of fishing gear, such as the use of trawlers to harvest the resource, leaving very little resource for other fishers.

The third reason for conflict is tensions that are based on religion. This is not easy to handle as diverse ethnicities and religions are involved. This can happen in countries where the fishers come from different ethnic groups and religions. The conflicts often arise because people cannot agree with the power-sharing to sort out the fisheries resource distribution.

The fourth reason for conflict is historical. This type of conflict has existed for a long time, and the only way to solve the conflict is to examine the history and look at the root cause of conflict. However, such conflicts are difficult to resolve compared to conflicts that are due to disagreement with government allocation of fisheries resources and conflicts caused by limited resources.

Comprehensive analysis of fisheries conflicts

Charles (1992) classified fisheries conflicts into four principal types, namely philosophical conflict, management/institutional issues, internal allocation, and external issues between the fishery and outside players. Charles (1992) also provided an integrated framework in the triangle paradigm to analyse the roots of the fisheries conflicts. The three paradigms are conservation paradigm, rationalisation paradigm and social/community paradigm.

Main reasons for fisheries conflicts

Fisheries conflicts exist throughout the world. They exist in Cote D'Ivoire, Mozambique, the Philippines, Bangladesh, Malaysia, Thailand, and Zambia (Viswanathan et al., 2003). There are two main hypotheses on the causes of conflicts. These are the demand-induced scarcity hypothesis and supply-induced scarcity hypothesis. Spijkers et al. (2021) applied a multi-model ensemble approach to a global database of international conflicts to test the two hypotheses. Spijkers et al. (2021) show that rising demand for fisheries resources increases fisheries conflicts, thus supporting the demand-induced scarcity hypothesis. Spijkers et al. (2021) also show that an increase in fisheries supply due to increased fishing effort is linked to increased conflict.

Another reason for conflicts is the different understandings of property rights. One significant example is the case of Mozambique. The small-scale artisanal fishers have conflicts with the semi-industrial vessel operators in the Mozambique coastal waters. The conflict occurs when the industrial shrimp trawlers operate close to the shore and compete with small scale fishers over fisheries resources. As a result, the small-scale fishers that operate along the coastline suffer from damage to or destruction of their beach seines. The conflicts between the industrial shrimp trawlers and small-scale fishers arise because of the misunderstanding of their respective rights over fisheries resources.

APPROACHES TO MANAGING CONFLICTS

Top-down management approach

The first management approach is the top-down management approach, where the emphasis is on the role of the state or government in managing the conflict. The government has command and control over conflict management. The government sets regulations and policies to reduce the conflict in fisheries. Those fishers that violate the regulations are penalised by the government. However, top-down legislative changes that focus on regulations and enforcement to control fishing efforts have failed to prevent overfishing and conflicts over fisheries resources. Pomeroy and Viswanathan (2003) demonstrate that most of the coastal and inland fisheries in Asia are still overfished, and conflicts among large scale and commercial fishers and small-scale traditional players are not resolved. The failure is due to the top-down approach of centralised management, focusing on objectives relating to fish resources (Viswanathan et al., 2003) and mostly disregarding the experience of the fishers (Degnbol, 2003). The recognition of the failures of the exclusively government-managed fisheries led to the emergence of co-management or community-based management as an option to improve fisheries conflict management.

Community-based management approach/ co-management approach

The second management approach is the community-based management approach. In the community-based management approach, the community has the freedom to participate in decision making to solve conflicts. The communities decide on the distribution of the amount of fisheries resources, and government acts in a supervisory capacity to ensure that the implementation of the decision goes smoothly. In recent years, the government and policymakers have gradually accepted the concept of co-management as an important fisheries management system for the future. Understanding the concept of co-management is crucial for effective implementation. Co-management serves as a basis for natural resource management, as Kearney (1984) highlighted. Sen and Nielson (1996) also introduce the framework for understanding the co-management arrangement. In co-management, the fisheries management responsibilities are shared between the government and fishing communities, and both of them govern the resources together (Nielsen & Vedsmand 1999; Pomeroy & Berkes 1997).

Co-management has several benefits and is viewed as an innovative change to modern fisheries management. Firstly, co-management enables power-sharing and participation of all stakeholders in a democratic manner to reduce fisheries conflict (Dahlet, 2021). Co-management can also combat IUU fishing by engaging fishing communities' efforts to obtain better information on IUU fishing and fisheries conflict (Lee & Viswanathan, 2020). However, it needs to be adapted to the local situation. The government must empower the local communities to manage the fisheries conflicts and provide support to the fishing communities. There must be consultations between the fishing communities, NGOs, and researchers so that the rights and responsibilities are assigned to the fishers directly involved in the fishing activities and conflicts. Co-management requires a clear commitment on the part of the central governments to share power and authority with local governments and groups of people, such as local fishers and community members directly using the resources.

Community-based management is successful in several countries, such as Ghana (Ameyaw, 2021), the Philippines (Ramires & Garces, 2021), and Indonesia (Steenbergen, 2016). In Ghana, for example, fishers are made more aware of fisheries laws through education via co-management and gradually contain the fisheries conflicts. However, Malaysia still practices command and control of fisheries. Malaysia has a big landmass compared to the Philippines and Indonesia, which have many islands that make up the nations. In Malaysia, the Fisheries Department of Malaysia acts according to the Fisheries law of 1985 and sets the zoning area for the fishers to follow. Fishers are required to follow the zoning regulation, and there are a limited number of projects that are co-managed together by government and small-scale fishers. The fishermen associations are less effective in organising themselves to help market the fisheries products for fishers in Malaysia. The decision is a top-down approach by the government to the local fishers. Fishers participate less in the decision-making process and depend on government fuel and net subsidies to sustain their livelihood. Fishers are given a monthly allowance of RM250 per person per month to sustain their livelihood as well.

IMPLEMENTATION OF CO-MANAGEMENT IN ASEAN

Several steps are involved in the implementation of co-management in ASEAN. The first step is for the government to facilitate the co-management process. Governments should provide a platform for regular discussions and meetings with the fishers to solve their problems. The second step is for governments to allow fishers to express their concerns and ideas. Fishers should be given the right to develop their own organisations and form networks and coalitions for cooperation and coordination. Such organisations must incorporate the fishing community's needs and initiatives. The government's role in providing the necessary conditions for the fishers' organisations to develop legitimacy and accountability in institutional arrangements is profoundly important. This is an essential role for the government to provide a legal basis for the functioning of the fishing community's organisations.

Co-management in the Philippines

Co-management started in the Philippines in the early 1980s (Pomeroy & Viswanathan, 2003). The earliest initiative of co-management was the establishment of the Central Visayas Regional Project in 1984. Co-management has been attempted in the Philippines in San Salvador Island, a 380-hectare island in the province of Zambales. The idea of co-management started when the centralised national government failed to control the situation of rampant illegal fishing activities. These rampant illegal fishing activities existed in the 1980s and brought damage to the fishing industry, including the depletion of fisheries resources and the destruction of coral reefs.

The Marine Conservation Project of San Salvador (MCPSS) was then established in 1988 through the initiative of a volunteer group named Peace Corps. The joint efforts of the Peace Corps volunteers, the resource users, and the NGOs to form the MCPSS have been successful in mobilising the residents to act collectively to manage the resource problems. Residents were informed of the consequences of unsustainable fishing practices through publicity campaigns. The residents were committed and participated actively in consultation with local fishers to draft a local ordinance that banned destructive fishing methods, including kunay (a traditional fishing gear that uses a long scoreline of coconut fronds for herding fish). The local municipal government passed the ordinance in July 1989, thus providing government recognition for the regulation. The co-management not only solved the conflicts between the fishing communities and government but also successfully managed the fisheries resource sustainably.

Co-management in Indonesia

Indonesia moved towards co-management in the mid-1990s by introducing decentralisation policies in the agriculture sector (Satria & Matsuda, 2004; Sugishima, 2006; Susilowati, 1996). Decentralisation in fisheries consisted of the devolvement of management functions to lower government levels, including districts, sub-districts, and villages (Steenbergen, 2016). The establishment of the Undang-Undang 22/1999 Law on Local Government devolved the power of fisheries management from the central government to local governments. Under this law, the jurisdiction of each level of government on sea waters is clearly defined. For example, the areas of water within 12 miles of the coast are under the provincial government's jurisdiction, whereas the areas between 4 miles and 12 miles are under the authority of the local government or district government. Local governments in fisheries management are encouraged to use local regulations to serve the local constituents better.

Co-management in Thailand

Thailand also encouraged co-management and people participation in fisheries management in the mid-90s, with the introduction of the Eighth National Economic and Social Development Plan (1997 to 2001). The key strategy of the Plan is to provide opportunities for the community, especially fishers to participate in decision-making, monitoring and evaluation of public development projects that are likely to have an impact on the natural resources and environment. Furthermore, the local government should facilitate continual public discussion at every stage of public projects, such as initiation, preparation, and implementation. In the fisheries co-management movement in Thailand, the non-governmental organisations (NGOs) and the university lecturers educate and support the local fishers in forming and

participating actively in fishers' organisations (Pomeroy & Viswanathan, 2003). The purposes of the fishers' organisations are also to solve the fishers' problems and improve their welfare. For example, with the assistance of NGOs and university lecturers, the fishers' associations were able to build up and strengthen local capacity in conserving and rehabilitating coastal resources to ensure sustainable fisheries resources for the fishers in the long run.

CRITICAL ANALYSIS OF CONFLICTS

Conflicts are predominant in fisheries. Most of the conflicts originate from competition for access to fishing and technologies used by different players in the fishing activities. Regulation of fishing further adds to this conflict by creating displeasure and anger among fishers with the fisheries management authorities. Greater cooperation between the fishers and the management authorities is needed to reduce the conflicts and protect the fisheries and the livelihoods of fishers. So, community-based management and co-management are seen as viable options for ameliorating conflicts in the ASEAN region.

CONCLUSION AND IMPLICATIONS

Fisheries conflicts occur because of a misunderstanding of the allocation of rights among users of waters. It is serious as it may contribute to resource degradation and fishing wars if left unresolved. Understanding the allocation of rights is important to reduce conflicts. Moreover, a deeper understanding of regional fisheries conflicts is needed to design and implement more effective responses (Spijkers, 2019). The top-down fisheries management approach is not effective in reducing conflicts. Thus, co-management is needed to reduce conflicts. Co-management involves sharing power between the government and the fisher communities to manage the fisheries conflicts. The fishers or fisheries communities must be given opportunities to participate actively in discussion and consultation and decision-making. The fishers are the direct users of the waters, and they know the problems and conflicts well. Co-management is proven to be effective in the Philippines and many other countries. Thus, co-management should be implemented in ASEAN but adapted to the local context because different countries have different geographical, local cultures, and coastal settings.

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