Marine tenure rights and small-scale fisheries in Indonesia:

Comparing legal context and reality

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**Introduction**

Indonesia’s fishery is one of the biggest in the world. This owes to the country’s unique geography, with its maritime zones covering nearly six million square kilometres, constituting 2/3 of the total Indonesian territory. The Food and Agriculture Organization of the United Nations (FAO) notes that in 2016, capture fisheries in Indonesia produced six million tons, highest among Southeast Asian countries (Ridwanudin 2019). This production was supported by a total of 625,633 fishing vessels, which comprise of small-scale (less than ten gross tons), medium-scale (10-20 GT) and large-scale (more than 20 GT). (MMAF 2015)

This paper will only discuss small-scale fishers. By law, small-scale fishers refer to those fishing by vessels less than ten gross tons. These include non-motorized and motorized – out-board and in-board engine – vessels. Laws do not specify small fishers in terms of fishing gear. Nonetheless, in practice, we see that the category covers those who glean fish in coastal waters, use stationary fish traps, gillnets, hook-and-line, kite fishing and other selective gear. Thus, they cover various gear used nearshore waters up to 12 miles from the coast, with the exception of tuna fishing, which can operates beyond 12 miles.

Small-scale fisheries contribute significantly to the Indonesian fisheries and national food security. Small-scale fishing craft account for 96 per cent of the Indonesian fishing fleets. Small-scale operators contribute nearly half (49 per cent) of total fishing effort. In terms of employment, the sub-sector employs 87 per cent of all fishers. FAO and WorldFish Center (2008) estimated that 85 per cent of the small-scale fisheries catch was for domestic consumption. This means that small-scale fisheries play a significant role in domestic food security and nutrition, particularly with regards to fish-based protein.

**Figure 1.**

**Profile of Small-Scale Fisheries in Indonesia**

Source: Courtney et all (2017)



Nonetheless, the lives and livelihoods of fishing communities and the sustainability of small-scale fisheries face serious challenges. This is due to both ecological and socio-economic circumstances. Despite the abundance of fish resources at present (12.5 million tons annually), coastal fish availability, the mainstay of small-scale fisheries, have shown indications of overexploitation (MMAF 2015). Deforestation of mangrove ecosystems in Indonesia has been one of the fastest in the world and the condition of coral reefs also needs urgent attention (Giyanto at all. 2017). Economically, fishers and coastal communities are presented as the enclave of the poor. This narrative is true both for Indonesian government and non-government organisations (NGO) alike (for example, Pusat Kajian Stategis Badan Amil Zakat Nasional). The Indonesian Bureau of Statistics notes that 26.58 million people in Indonesia lived below the poverty line in 2017. Coastal and rural communities contribute 61.36 per cent to this number.

It seems that this situation is not unique to Indonesia but it is a general condition of global small-scale fisheries, particularly in the developing nations. This has stimulated global concern to assist small-scale fisheries in coping with their problems on the one hand, and to sustainably manage their fisheries on the other. In this regard, the FAO Committee on Fisheries (COFI) endorsed the Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication (the SSF Guidelines) in 2014. These Guidelines were prepared “to support the visibility, recognition and enhancement of the already important role of small-scale fisheries and to contribute to global and national efforts towards the eradication of hunger and poverty.” (FAO 2015) The SSF Guidelines deal extensively with the responsible governance of tenure. They highlight the importance of securing the tenure rights of customary, local and traditional fishing communities for conservation and sustainable use of marine and coastal resources, which also form the basis of their social and cultural well-being, and provide for their livelihoods and their sustainable development.

This paper will look at fisheries tenure in Indonesia and the impact of the legal framework governing fisheries on coastal fishing communities. In this regard, the paper will first discuss the context of fisheries tenure in the Indonesian legal system. This section will review the Indonesian Constitution and some laws pertaining to coastal and small island management and fisheries. A discussion on marine and coastal tenure systems in practice will follow.This section, in essence, will look at the reality of tenure systems and fishing rights on the ground (or rather, at sea). In the section on community-based coastal/fisheries management, communal marine tenure in Indonesia is discussed, providing some detailed examples from Papua, Maluku, Lombok and Aceh. A discussion on the fishing practices outside community tenure areas and the threat from government policies, such as the policy of Coastal and Small Island Zonation Plan, will close this section. The third part of the paper will discuss a few existing threats to community tenure and fishing rights. In this context, the paper elucidates the threats both from within the fisheries sectors and from coastal palm oil plantations, coastal reclamation projects and conservation. A specific section on the role of NGOs and fishworker organisations represented by Koalisi Rakyat Untuk Keadilan Perikanan (KIARA, People’s Coalition for Fishery Justice) and Kesatuan Nelayan Tradisional Indonesia (KNTI, Traditional Fishers Association of Indonesia), will look at the position and actions of these two organisations in advocating of fishers’ rights and their responses to threats. The penultimate section attempts to evaluate the marine tenure and fishing rights governance in Indonesia from the perspective of the SSF Guidelines. The arguments in this section lead to the formulation of some recommendations in the final part of this paper.

**Laws and regulations on marine tenure rights in Indonesia**

The foundation for the relationship between the State and the people in the management of natural resources is contained in three articles of the Indonesian Constitution. First, Article 33(3) notes,

*bumi, air dan kekayaan alam yang terkandung di dalamnya dikuasai oleh Negara dan dipergunakan untuk sebesar-besarnya kemakmuran rakyat.*

[Earth, water and natural resources contained in them are controlled by the State and are used for the prosperity of the people.]

This article has two main messages: (1) that the State controls all territories and natural resources therein (covering terrestrial and marine areas); and (2) the State should use these resources for the welfare of the people. During the New Order Regime (1965-1998), when governance and natural resource management was centralised, the interpretation of this article favored government control over natural resources. Influenced by a development ideology that aimed at high economic growth through modernisation and industrialisation, laws that elaborated this article concentrated power in the hands of the Indonesian government, whose policies distributed natural resources to large companies. Rural and traditional (*adat*) communities and their traditional culture were mostly disregarded or were marginalised as they became recipients of development projects. The collapse of the New Order Regime brought about changes to the interpretation of this article. The new Reform Regime underlined the importance of the second message, that the State is obligated to use resources for the prosperity of the people.

The second is Article 18B (2):

*Negara mengakui dan menghormati kesatuan-kesatuan masyarakat hukum adat serta hak-hak tradisonalnya sepanjang masih hidup dan sesuai dengan perkembangan masyarakat dan prinsip Negara Kesatuan Republik Indonesia, yang diatur dalam undang-undang*.

[The State recognises and respects customary law community units and their traditional rights insofar as they are still alive and in accordance with the development of society and the principles of the Unitary State of the Republic of Indonesia, which are regulated in law.]

According to this article, the State acknowledges and respects the rights of adat communities to manage their own territories and resources, in a partial recognition of customary tenure rights.

Finally, Article 28H (2) states that,

*setiap orang berhak mendapat kemudahan dan perlakuan khusus untuk memperoleh kesempatan dan manfaat yang sama guna mencapai persamaan dan keadilan.*

[Every person has the right to be supported and receive special treatment to get the same opportunities and benefits to achieve equality and justice.]

This article sets an obligation for the State to protect vulnerable and marginalised populations against discrimination and to ensure equal access and opportunity. In the case of marine tenure and fishing rights, these three principles are elaborated in the Law on Coastal and Small Island Management No. 27/2007 (revised by the Law No.1/2007); Fisheries Law No. 31/2004, (revised by Law No. 45/2009); and the Law on the Protection and Empowerment of Fishers, Aqua-fish and Salt Farmers No. 7/2016.

Law No. 27/2007 vests authority to manage and exploit coastal waters and small island resources firmly with the Indonesian government (Articles 7-41). Several articles of this law tended to favor the private sector – in particular, Articles 16-21, which regulate the rights over coastal waters in the form of *Hak Pengusahaan Perairan Pesisir* (rights to use coastal waters) or HP3, which is similar to a territorial concession. HP3 bearers can carry out fishing and other activities utilizing coastal and marine resources in the water column up to the seabed. HP3 can be acquired by any entity – an individual citizen, an Indonesian private company, as well as adat communities. In some cases, an HP3 gives the bearer exclusive rights over a given territory.

The law was very controversial, for two main reasons. First, it could potentially privatise coastal areas, marginalizing fishers and traditional coastal communities, concentrating rights in the hands for companies, who would have a financial and technical advantage. Second, the law was also unconstitutional, undermining Articles 33(3) and 28H(2). Law No. 27/2007 obligated all adat community tenure to be converted to HP3, an impossible task for most traditional communities. Moreover, an HP3 expired after 20 years, effectively extinguishing customary rights, which do not have finite terms. Customary tenure is commonly recorded orally and are governed by the community, which determines access, use and transfer of rights.

Interestingly, the law also contains articles that acknowledge and protect customary rights. In Chapter XI on “Right, Obligation and Community Participation”, Article 60c notes that the community has the right to carry out management of coastal and small islands resources based on applicable customary law and not in conflict with other laws and regulations. Article 61 is more explicit, stating that the government recognises, respects and protects the rights of indigenous peoples, traditional communities, and local wisdom over coastal areas and small islands which have been used for generations.

The controversy over HP3 ended after a coalition of NGOs and coastal community representatives submitted a formal objection challenging Law no. 27/2007 in Indonesia’s Constitutional Court in 2010. The Court ruled in favor of the petitioners and canceled all articles on HP3 in June, 2011. The main argument in the ruling was that HP3 is a form of privatisation of the coast, which will potentially marginalise fishers and other traditional coastal communities. The ruling forced the Indonesian government to revise Law No. 27/2007 and enact Law No. 1/2014. As per the new law, non-fishery uses of coastal resources, including salt production, marine bio-pharmacology and bio-technology, need a *Ijin Lokasi* (location permit) and *a Ijin Pengelolaan* (management license), to be arranged separately. These do not include uses such as energy extraction, tourism, underwater installations or removal of sunken cargo and only allow rights to resources in the water column up to the seabed.

To address the possible marginalisation of traditional communities, Article 20 of the law obliges the government to facilitate licenses and permits for these communities. Additionally, these communities’ rights to use coastal and marine resources according to their own traditional law is protected (Article 21). This contradiction in the law is actually a bottleneck for adat law communities, as I will discuss in the next section.

Law No 1/2014 also includes clauses on the participation of communities in management, including the right to propose their traditional fishing grounds in zonation plans, to submit any objections to management plans and to legal support in case of disputes. Furthermore, the law requires the government to empower these communities through capacity building and access to technology, information and infrastructure.

While Law No. 27/2007 and its revision in 2014 deal more with the territorial rights of fishers, coastal communities and business entities, the Law on the Protection and Empowerment of Fishers, Aqua-fish and Salt Farmers No. 7/2016 (henceforth Law No. 7/2016) ensures government support to safeguard, sustain and improve the lives and livelihoods of small-scale fishers, fish farmers and salt farmers. In this regard, the law commits the State to: a) provide facilities and infrastructure for business development; b) provide assurance of sustainable business; c) increase the ability and capacity of fishers, fish cultivators and salt farmers in management, business development and sustainable practices; d) develop financing systems; e) protect from the risk of natural disasters, climate change, and pollution; and f) guarantee security and legal assistance. (***Table 1*** *analyses these provisions in more detail.*)

**Table 1. Support for Fishers, Fish-aqua Culture and Salt Farmers in the Law No. 7/2016**

|  |  |  |
| --- | --- | --- |
| **No.** | **Type of Protection/Empowerment** | **Specific support (examples)** |
| **Protection** | | |
| 1. | Business development | Infrastructure for capture fisheries: Fishing boat, gear and fish storage, fuel and other energy, and clean water [Article 21(3)] |
| Infrastructure for Aqua farming: brood stock, fish seed, fish food, fish medicine, laboratory, fuel and other energy, clean water, etc. [Article 21(4)] |
| Infrastructure for salt production: fuel and other energy, water pump, windmill, salinity meter, etc. |
| Post-harvest processing and marketing infrastructure: live fish storage, fish processing equipment, cold chain, marketing equipment, refrigerated transportation, ice and salt, packing equipment, etc. |
| 2. | Sustainable livelihoods | Maintain fish/salt processing environment to obtain good prices for fish and salt; control the health of coastal and marine ecosystems; ensure written contract for fisher, fish-aqua and salt farmers working in these industries. [Article 2591)]  Control of fish and salt imports (Article 37 and 38) |
| Develop national spatial management plan for capture fisheries and Aqua-culture [Article 2593)]  Provide open access for small fishers and aqua-salt farmers in the plan, to develop their livelihoods. |
| 3. | Insurance | Provide insurance to mitigate the risk of accidents, natural disaster, fish diseases, climate change and pollution (Article 30) |
| 4. | License costs | Free licenses for fishing, fish farming and salt farming (Article 36) |
| 5. | Guarantee against risk | Assurance for fishers’ and farmers’ security and safety during work (Articles 39 - 40). |
| 6. | Legal support | Provide legal support for fishers and farmers in the case of disputes (Articles 41-42) |
| **Empowerment** | | |
| 1. | Gender | All empowerment activities should take into account the role of women in fishing, fish farming and salt farming (Article 45) |
| 2. | Education and training | Provide education and training to fishers and farmers through internships, scholarships (Article 46) and extension worker services (Article 49) |
| 3. | Business partnership | Facilitate partnership between fishers and farmers in developing their businesses (Articles 50-51) |
| 4. | Access to science, technology and information | Enhance access to knowledge, technology and information of fishers and farmers to, among others, fish resources, land and water for fish- and sal-farming, and market opportunities. (Articles 52-53) |
| 5. | Fishers and farmers associations | Support, train and empower working groups and associations (Articles 54-58) |
| 6. | Finance | Provide financial support directly or through institutional guarantees to fishers and farmers (Articles 59-61, 69) |
| 7. | Banking | Appoint special unit providing financial support for fishers and farmers (Articles 62-68) |
| 8. | Community participation | Community can participate in program planning, implementation and monitoring activities (Articles 71-72) |

While the laws discussed earlier recognise or bestow rights to fishing communities and other resource users to coastal and marine areas, Law No.32/2004 (revised by Law No 45/2009) deals specifically with fisheries management. The law underlines some important principles of fisheries management, namely justice and equity; livelihoods and welfare of fishers; and the sustainability and good health of fishery resources and the environment.

Although management is primarily in the hands of the government, the law, in Article 9(2), acknowledges that “fisheries management must consider customary law and local wisdom, and pay attention to community participation.” Further, Article 61(1) states that “small fishers are free to catch fish in the entire fisheries management area of the Republic of Indonesia.” Small-scale fishers and fish farmers are also exempted from registration fees and other charges. The law also obliges the government of to empower fishers and fish farmers with credit schemes, training and extension services, and strengthening of associations and cooperative.

To summarize, we can to say that the legal framework for marine and coastal tenure in Indonesia is characterised by strong government control with some accommodations of the rights of traditional coastal communities and basic support services for small-scale fisheries and aquaculture. How this legal framework functions in practice will be discussed in the ensuing sections.

**Tenure rights of fishing communities in practice**

**Community-based coastal/fisheries management: Understanding local/traditional marine tenure and fishing rights**

Traditional coastal and marine resource management practices have a long history in many coastal communities in Indonesia. Ruddle (1994, 35) noted these practices in several communities in Sumatra, Kalimantan, Maluku, Papua, Sulawesi, Central Java, East Java, Flores and Tanimbar. Zerner (1990) also reported the existence of similar practices in the Makassar Strait. In Tanimbar, Maluku, certain kin groups have the right to use and manage specific reefs on the island. Among the Galela people in Halmahera, North Maluku, traditional villages are allocated ownership rights to specific fishing areas. On Selayar Island, in the Flores Sea, areas where people place fixed fishing gear are belong to their owners and are passed on through the male line. In Papua, the coastal communities of Ormu and Tepra, near Jayapura, manage their fisheries and coastal areas through a combination of customary tenure systems. Outsiders who catch fish without permission from the community are required to hand over their catch as compensation. Permits must be requested from *tubwe* (“village sea owners”) to fish in the village waters. These traditional systems are prescribed through annual ceremonies. The closure of the area to fishing activity is applied seasonally and during life cycle rituals.

In the next section, I will present some examples of customary marine tenure and traditional resource management practices I have studied since the early 1990s, starting with *Hak Ulayat Laut* (marine communal tenure) in Papua, North Sulawesi and Maluku, subsequently expanded to Selayar, Lombok, and Aceh (Wahyono 2000; Satria and Adhuri 2010; Adhuri 2017; Adhuri 2018; Ross at all 2019).

**a. Communal marine tenure and community-based marine resource management in Maluku and Papua**

The key concept within customary rights in the Kei Islands is *petuanan*. This concept refers to land (*petuanan darat*) and sea areas (*petuanan laut*) that are claimed by a particular social group. Such a social group can be a clan (*fam*), a settlement (*kampong*), a traditional village (*Ohoi*), a federation of several villages under the control of a king, or an ethnic group (the Kei people, for example). The claim over a petuanan area and the distribution of rights is recorded in the oral tradition (*toom*), which tells the story of establishment of the community and the social organisation of that particular area.

On land, the physical boundaries of a petuananare usually marked by natural signs such as rocks, trees and rivers. At sea, the boundaries vary – some communities believe that their area goes as far as the eyes can see. Some would say their petuanan covers an area as far as their boats can go or up to the limit of their fishing grounds. Some believe it is only up to the point where shallow waters meet the deep sea (*tohar*).

In local terms, there are two types of rights attached to a petuanan area. The first is *hak makan* (literally, the right to eat), which is the right to access a petuanan area. All community members are the holders of this right. The second type of right is *hak milik* (literally, property right), which includes access rights, the right to exclude and the right to transfer. This implies that the petuananis an exclusive area belonging to a particular social group. Outsiders, particularly those seeking to use the area or its resources for commercial activities (and not for subsistence), need the permission of the rights holder. Usually, the village governments organise contracts to regulate such activities.

In addition to these practices, some communities in Maluku have a traditional management system called *sasi*. This system regulates seasonal fishing bans, the gears used and species targeted. This system is applied to both terrestrial and marine areas and resources. When *sasi* is applied to a certain area, all extractive activities are prohibited. Only when the ban is lifted (*buka sasi*), are fishing activities permitted. In the past, the closed season could last as long as three years, but since the 1970s, the bans are lifted after one year. In Maluku, sasi is imposed on several species of fin fish, top shells (*trochus niloticus*) and sea cucumber.

The concept of *petuanan* in Maluku is called *wilayah adat* in Papua. It also regulates use of both land and coastal water, with the same type of rights. The tradition of closing and opening seasons is called *Kiripup* in Jayapura or *Tyatiki* in Biak (Steenbergen and Adhuri 2019).

Since 2015, the Indonesia Locally Managed Marine Area Foundation (ILLMA), a marine conservation NGO, has been involved in improving traditional marine resource management in Maluku and Papua. The NGO helps communities by revitalizing weak regulations and adding newly agreed ones, such as a fee levied on fishing by outsiders, who do so seasonally in community managed areas. ILLMA also helps communities codify this informal tradition and formalise it in the form of village law. In four years, 210 village communities have successfully improved their fisheries management systems (147 in Papua and 63 in Maluku). An evaluation of these areas found that in most villages, destructive fishing has totally stopped, reef cover and see cucumber harvests have increased and larger areas of mangroves are protected. In Tanimbar Kei, the income derived from these improvements was used for educational scholarships and to support medical costs when community members were ill and required treatment in the city.

**b. Marine tenure and community-based marine resource management in Lombok**

In the 1990s, when destructive fishing was rampant in Lombok, people started to realise its impacts on coral reef and on fish stocks. Fishers had to fish further ashore, increasing costs and threatening their safety, with diminish returns. With the support of an NGO, some fishers started a movement in 2000 to revitalise traditional management systems. They established the Lembaga Musyawarah Nelayan Lombok Utara (LMNU, North Lombok Fisherman's Consultative Board), and agreed to institute some regulations for fishing and coastal management in three sub-districts. The *awig-awig* or *awik-awik* system (regulation) of coastal management later spread beyond these areas.

The system consists of three main elements – the management area, the management regulations and the management committee. The size and boundaries of the management territory vary but are usually nearshore reef fishing areas. The territory is then divided into zones, whose boundaries are delimited by such physical marks as houses, trees, buoys, and other features (Satria and Adhuri 2010, 47). The regulations prohibit certain destructive fishing practices such as the use of dynamite and poison. They could also contain culturally significant zones and no-take areas for conservation. A traditional court settles disputes and administers fines and punishments in case of violations. Management is overseen by committees established within fisher organisations. In the LMNU, for example, the Majelis Krama Nelayan (MKN, fisher ethics committee) is in charge of monitoring and enforcement.

The practice of awig-awig in North Lombok has created several benefits, such as a significant reduction in destructive fishing , an increase in mangrove cover and support to women’s post-harvest activities. This has had positive impacts on household incomes and community welfare in general.

**c. Marine tenure and resource management in Aceh: panglima laot**

Most coastal waters in Aceh are governed by the *panglima laot* (commander of the sea) management system, consisting of a management territory (*lhok*, meaningan embayment)*,* norms for allocation of coastal resources (*hukum adat laot*) and the management organisation, (*panglima laot*) whose leader is known by the same title. The area covers coastal and marine ecosystems and resources, extending two to fifteen miles into the sea. These limits are set based on the lengths of beach seines and the location where fish aggregating devices (FAD) are set. According to Tripa (2019), there are 167 lhok in the province of Aceh.

The management norm differs in every lhok. Nonetheless, it generally regulates the fishing gear, allocation of fishing spots, harvest share and fishing closures. Destructive fishing methods are prohibited in all lhoks – trawl nets are prohibited in most. The catch is shared between those who first spot the school of fish and those who catch them. In these areas, cutting down mangroves is regulated or totally banned. All lhoks in Aceh are closed for fishing on Fridays, in keeping with Islamic practice.

The panglima laot organisation is responsible for day-to-day management activities, such as surveillance, dispute settlement, representing fishers in dealings with governments or other parties.

To conclude the discussion on traditional tenure and management, it is important to note that only 17 traditional management units are formally recognised or in the process of being recognised by the government as of February, 2019. (The Panglima laot system is an exception; it is acknowledged by the Aceh provincial government.) The problem lies in the requirement that customary tenure systems be formally recognised by governments. The process is often very challenging – the community needs to obtain a letter of recommendation describing the management territory and norms from the district government, and have their management organisations verified on the ground. Fisherfolk often do not have the resources and technical knowledge to produce such a document. Moreover, many of these are oral traditions – not documented. District government also have little resources to verify and formalise these practices.

**d. Tenure systems outside of traditional community management areas**

Although traditional tenure and management practices are widespread, most Indonesian maritime zones and fishing grounds are beyond the reach of traditional regulations. These waters are under the control of the Indonesian government. All these areas are open for access by small-scale fishers – fishing with vessels up to ten gross tones.[[1]](#footnote-1)

Being free to fish anywhere in Indonesian waters comes with a consequence: they cannot claim ownership or management right to a particular fishing ground or area. This makes small-scale fishing communities vulnerable to marginalisation by government and other users of marine and coastal resources.

The threat to small-scale fisheries is apparent in the Coastal and Small Islands Zonation Plans issued by provincial governments. Of the 21 provinces that have issued such zonation plans, it appears that coastal and marine resource grabs will be a serious threat if the zonation plans are implemented. For example, the current Jakarta Province Zonation Plan allocates the coastal fishing community settlements for port and break-water construction. In Banten province, the government plans to legalise seabed mining in areas close to fishing communities. The East Kalimantan zonation plan indicates that cement industry development will be accommodated, potentially threatening the lives and livelihoods of coastal communities (AMUK 2019). While these zonation plans indicate potential threats, the following section will discuss existing conflicts experienced by coastal fishing communities.

**Existing threats to tenure rights of small-scale fishing communities**

Small-scale fishers and fishworkers experience several threats from within and outside the fisheries sector. Within the sector, they are threatened by the operations of large-scale and destructive fishing practices. For example, although trawlers been banned in the Malacca Strait since 1980, they have never stopped operating in the strait, severely depleting resources, damaging ecosystems and impacting the livelihoods of small-scale fishers.

These effects have motivated strong resistance movements by fishers along the Malacca strait, even leading to violent confrontations and the burning of trawlers. But so far, these actions have failed to stop trawler operations.

Threats from other sectors include coastal palm oil plantations and coastal reclamation projects. The oil palm industry in Indonesia has grown exponentially in the last two decades. This has encouraged the conversion of forests into the plantations. As inland forest cover has shrunk, investors have turned their attention to coastal forests. In early 2000, deforestation of mangroves started in Langkat – thousands of hectares of forests were cut down and replaced with oil palm. In order to dry the intertidal zone and establish suitable conditions for the palm trees, companies constructed dikes along the coast. This development was a serious blow to coastal fisheries. Worryingly, the sector is expected to grow in the future.

Coastal reclamation is another serious threat to small-scale fisheries. For example, a project in Jakarta Bay has impacted the livelihoods of over 10,000 fishers. The project has polluted the water in the bay and dried out several fishing grounds, forcing fisheries to go further in search of fish, increasing fuel and other costs. Mengge (2019) observed that reclamation on the coast of Makassar, South Sulawesi has marginalised fishing communities. Ardana and Farhaeni (2017) found that reclamation in Benoa Bay, Bali has not only resulted in economic impacts on coastal communities but also on their religious practices and values – the reclaimed area covered some sites considered sacred by local Hindu communities. KIARA found that reclamation projects increased from 16 to 37 sites between 2016 and 2017.

Coastal mining around small islands is another threat to fishers and fishing communities. When studying fisheries conflicts in Bangka-Belitung, Sumatera in early 2000, I observed that conflicts between fishers and tin miners were rampant in the area. In Bangka Belitung, the absence of powerful State agencies following the collapse of the New Order Regime had stimulated the development of illegal tin mining in coastal waters. Resistance from fishers triggered serious conflicts. Recently, KIARA reported conflicts over nickel mining in Wawonii Island, Southeastern Sulawesi (Ridwanudin 2019, personal communication). The organisation has found coastal mining projects in 11 provinces in Indonesia (Ridwanudin 2019).

Marine conservation also impacts small-scale fisheries. The conventional approach to conservation tended to see fishers as a threat to biodiversity or the integrity of ecosystems. Consequently, conservation initiatives leaned towards the exclusion of fishers from protected areas. In many cases, protected areas cover fishing grounds of the surrounding fishing communities, leading to the harassment of fishers, the loss of livelihoods and conflicts. (Damanik, Satria and Martani 2006). Gustave and Borchers (2008) analyzed a conflict between conservation authorities backed by an NGO, and local fishers in the Komodo National Park, which ended in the death of one fisher. Majors (2008) argues that the local Bajo community’s discontent at the conservation authority and NGO in Wakatobi National Park was rooted in the conflicting knowledge paradigms of these parties – the environmental knowledge of the community was neglected in the planning of the Park’s conservation measures. Thus, Majors (2008, 259) notes that “current Marine Protected Area approaches of environmentalists, despite promises of participation and highlighting the need for community involvement, remain far removed from the realities of the communities with which they seek to work.”

In Lamalera, East Nusa Tenggara, the whale hunters’ resistance to conservation also rooted in such conflicting paradigms between the community and conservation sponsors. For the community, fishing is not only an act of hunting whales, but also a part of their belief system necessary for maintaining social order. The conservationists couldn’t see past the act of killing the magnificent creatures.

The Indonesian government has set a target of conserving over 320,000 sq km of its marine area by 2030. As Majors (2008) notes, although there has been a shift towards participatory conservation approaches, they need more time to be fully adopted.

**Conclusion**

Small-scale fishing vessels make up 96 per cent of the Indonesian fishing fleets and 49 percent of fishing effort. These fisheries contribute to the life and livelihoods of 1.6 million households. Small-scale fisheries also play a significant role in meeting nutritional needs of over 200 million Indonesians. Nonetheless, the mainstream narrative about small-scale is one of poverty, inefficiency and over-exploitation of resources. This emphasis on problems rather than the complexity and contributions of the sector makes people think of the it as a burden. This undermines the role coastal fishing communities in addressing these problems. This seems one of the reasons that Indonesian government does not put.

Recognition and the responsible governance of community tenure rights is key to protecting small-scale fisheries, enhancing its contribution to food security and poverty eradication, and to achieving sustainability. This paper has discussed how traditional management practices have been carried out in a lot of coastal communities. Unfortunately, although there are laws and regulations recognizing the rights of fishers, the formal acknowledgement of traditional tenure systems is still hampered by requirements that are difficult for fishing communities to fulfill. I believe that these problems arise from an inadequate understanding of the important of tenure in resource management; the lack of faith in coastal communities in solving problems; and lastly, a government approach which see revenue as the main indicator of development. Further, this paper has highlighted the marginality of small-scale fisheries by looking at the threats that they face from outside and from within.

We know that small-scale fisheries are diverse and complex. The characteristics and associated practices of fisheries vary across regions, gears and vessels sizes. Their fishing grounds, target species, organisations, share systems, levels of investment, infrastructure needs and marketing chain are also different. Thus, full participation of fishers and fishworkers should mean that all of these differences are represented in decision making processes.

**Recommendations**

1. Recognise the importance of small-scale fisheries to national food security, poverty eradication and fisheries management. This should be supported by fishworker movements from showing coastal communities addressing problems in the sector.

2. Train government agencies and other stakeholders one the importance of responsible governance of tenure for fisheries management. This should also cover the importance of the fisheries vis-a-vis other maritime sectors.

3. Review legislation and policy governing marine tenure, fisheries management and the livelihoods of small-scale fishers and fishworkers. Laws and regulations that hamper the legitimate traditional tenure systems and rights of fishing communities should also be reviewed.

4. Establish fishworker associations throughout Indonesia so that fishing communities are represented in decision making processes.

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1. In Indonesian law, there are two different definitions of small-scale fishers. According to Fisheries Law No. 45/2009, the small-scale fishers are those who fish using five gross tons or smaller vessel. According to Law No. 7/2016, the size of small-scale fishing vessels can be up to ten gross tons. [↑](#footnote-ref-1)