

HOW CAN TRADITIONAL MARINE RESOURCE MANAGEMENT SUPPORT A RESPONSIBLE FISHERY? Lessons Learned from Maluku

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ABSTRACT

The current discourse on marine resource management or coastal fishery is favouring collaborative management (Co-management). That is a shared management practice between government and community. Co-management is argued to correct the ineffectiveness of centralized management system as well as empower the weakening practice of traditional marine resource management (TMRM) and communities which, otherwise, is proven more effective and promote a sustainable and socially fair resource management. Using traditional marine resource management in Maluku eastern Indonesia as a reference, my paper will examine the potency and problems of incorporating TMRM in Indonesian marine resource management. TMRM in Maluku takes the form of *sasi*, that is a practice of temporal prohibitions on making use of a particular resource or a particular territory. Lies at the foundation of *sasi* is the practice of communal marine tenure. Talking about potency, I will look at *sasi* practice as a good example of the ability of local community to regulate who, where, when and how people can enter and make use of their sea territory and its resources. This practice, I believe, can promote a sustainable and socially just marine resource management. However, discussing of its problems, I will demonstrate that the embeddedness of TMRM in the socio-cultural construction of the community, might constraint its effectiveness in the condition of pluralistic society. This is because, the belief system, the ritual and other socio-cultural backgrounds are only shared by members of a single community. The socio-cultural changes in the community might also create problems for the effectiveness of TMRM. An example of the latter problem will be discuss in relation to a political contestation in a community which led to the presence of an outsider fishing company that used destructive fishing methods. At the end of my discussion, I will try to propose some alternatives of promoting the potency of TMRM and reducing the problems of its application.

Keywords: Traditional marine resource management; Co-management; *Sasi*; Communal Marine Tenure; Maluku

INTRODUCTION

Maluku (Moluccas) is an archipelago located in eastern Indonesia (see Figure 1 and 2). Until some years ago, this archipelago was under a single administrative province, but now it was divided into two provinces, namely Maluku and Maluku Utara (North Maluku) provinces. The archipelagic nature of these provinces make their sea territory is much larger than their land.

In historical time Maluku was very well known for its clove and nutmeg. These two commodities have put Maluku into an international trade network started not later than in the 16th century. In the modern time marine resources are added to, if not replace, clove and nutmeg. *Tripang* (sea cucumber), shark fin, skipjack, live and fresh coral reef fish, top shell (*Trochus niloticus*), and pearl are the main marine commodities exported from Maluku.



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In recent time, Maluku also gained international popularity from a unique tradition of managing their marine resources. Actually, concern on traditional marine resource management (TMRM) in Maluku started in when Lokollo (1988), a law professor at local university, wrote a paper which promoted traditional resource management in Maluku as the basic model for the national policy on rural environmental management (*tata bina mulia lingkungan pedesaan*). Lokollo's idea was taken up by local NGO working for environment issues and community advocacy in the early 1990s. At that time, NGOs used TMRM as ammunition of their resistance over the centralistic and authoritarian Indonesian central government (see Anonim 1991). For this purpose some NGOs also encouraged traditional leaders in Maluku to write their own resource management tradition (see Kissya 1995, Rahail, J.P. 1995). Later, both Indonesian and foreign scholars involved in discussing this issue (see for examples; Bailey, C and C. Zerner. 1992; Benda-Beckmann, F. von, K. von Benda-Beckmann and A. Brouwer. 1992, Nikijuluw, V. P.H. 1994; Adhuri 1995; Novaczek, I., J. Sopacua and I. Herkes. 2001; Pannell, S 1997, and Zerner, C 1991, 1994, 1996). Scholars' attention on marine resource management in Maluku was in line with the popularity of community-based management in discourse on marine resource management. As the discourse on marine resource management develops which is currently in favor of what so called Collaborative Management (Co-management) concerns on traditional resource management in Maluku still continue but take different analytical approaches.

Based on my reading on the existing references on traditional marine resource management and my own research in Maluku, this paper will examine the potency and problems of incorporating TMRM in Indonesian marine resource management. Talking about potency, I will look at TMRM in Maluku as a good example of the ability of local community to regulate who, where, when and how people can enter and make use of their sea territory and resources. This practice, I believe, can promote a sustainable and socially just marine resource management. However, discussing of its problems, I will demonstrate that the embeddedness of TMRM in the socio-cultural construction of the community, might constraint its effectiveness in the condition of pluralistic society. This is because; the belief system, the ritual and other socio-cultural backgrounds are only shared by members of a single community. The socio-cultural changes in the community might also create problems for the effectiveness of TMRM. An example of the latter problem will be discuss in relation to a political contestation in a community which led to the presence of an outsider fishing company that used destructive fishing methods. At the end of my discussion, I will try to propose some alternatives of promoting the potency of TMRM and reducing the problems of its application.

TRADITIONAL MARINE RESOURCE MANAGEMENT (TMRM) IN MALUKU

The practice of traditional marine resource management in Maluku consists of two main elements. The first element is communal marine tenure and the second is the practice of *sasi laut*. This section will discuss these two elements:

Communal Marine Tenure

To understand about communal marine tenure in Maluku, first, we should discuss the local concept of territoriality which is represented by the term *petuanan*. The word of *petuanan* itself derives from *tuan* which means 'owner' or 'master.' The prefix *pe* and suffix *an* give the

notion of place to this word. Therefore, it is not far from its literal meaning for the people of Maluku to understand *petuanan* as an estate or territory of a certain traditional social group (see Zerner 1992).

The concept of *petuanan* applied to both land and sea territory. In fact, when people use the term *petuanan*, most probably they talk about both land and sea territory as a single unit. When they mean to discuss either land or sea territory separately, they will add specific terms, *darat* (land) or *laut* (sea) to the word *petuanan* to refer to land and sea territory respectively. Thus, the terms become *petuanan darat* and *petuanan laut*.

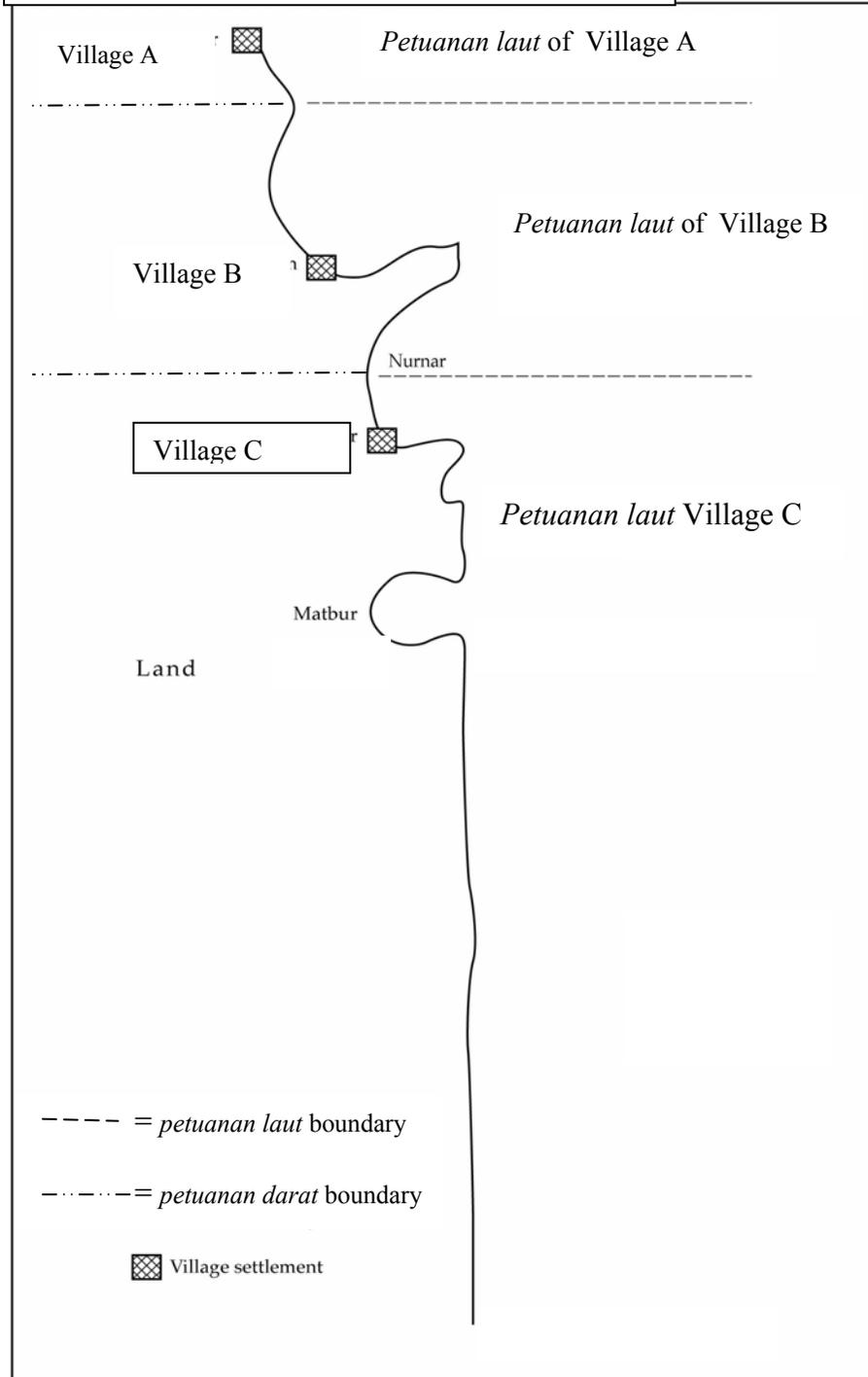
Further, if we limit our discussion on *petuanan laut*, we can identify four main concerns of this concepts, that is (1) the right holding unit, (2) the unit of a sea territory, and (3) type and distribution of rights on the sea, and (4) exclusivity. For the first, the social units that may claim 'ownership' over a particular sea territory are various. In Maluku Tengah (Central Maluku), it is more common that a sea *petuanan* right holding unit is a traditional village (*negeri*). While in Kei Islands Maluku Tenggara, I found that the right holding unit of a *petuanan laut* could be a kin group, a settlement (*kampung* or *ohoi*), a traditional village (*negeri*), a traditional 'kingdom' [a confederation of traditional villages or *ratschap* (in Kei Islands)], a moiety and the whole society (Adhuri 2002). Thus, in this context, when people claim, 'this is our *petuanan laut*,' the term us (we) might refer to the above social units.

For the second, the unit of sea territory, it usually refers to the adjacent sea of people's land territory. On land direction, the boundary of a particular sea *petuanan* is the border of land territory (*petuanan darat*) of a particular social unit. Thus, if the right holding unit is a village the boundary on the land side of sea territory of that village will be a point on the land that borders that particular village with its neighbour village. An imaginary straight line will be drawn from that point to the sea as the border of the sea *petuanan* (see Figure 3 as examples). On the sea side, the boundary of a *petuanan laut* is various. There are people who claim that their *petuanan laut* goes as far as the eyes can see. Others claim that their sea territory goes up to the point where the shallow sea meets the deep sea (*tohar*) which can be identified by the colour of the sea water. In other cases where the territory of a particular social unit covers an island, the *petuanan laut* of this particular social unit will cover the surrounding sea of that island. An example of this is the *petuanan laut* of Dullah Laut which covers the surrounding sea of nine islands.

For the third, type and distribution of rights over *petuanan laut*, we may note two type of rights. These two rights are *hak makan* ('right to eat,' use right) and *hak milik* (property right). As the name implies, *hak makan* refers to right to make use of sea territory. This means that those who hold *hak makan* are free to make use of the sea territory. While *hak milik* covers both *hak makan* and the right to transfer the *hak makan* to another party. This means that those who hold *hak milik* are not only free to make use of the territory (*hak makan*), but can also freely transfer their *hak makan* to those who otherwise have no right at all to make use of the *petuanan laut*.

The distribution of the *hak makan* and *hak milik* is as follows. *Hak makan* is distributed equally to all members of the social unit. Thus, if the social unit is a village community, the *hak makan* over sea territory of that village is distributed equally to all members of that community.

Figure 3. Examples of *Petuanan Laut* boundaries



This means that all members of the community are free to exploit their *petuanan laut*. The distribution of *hak milik* is rather different. *Hak milik* is the exclusive right of the core kin groups in the community. The core kin group refers to kin groups of those who played a very important role in the establishment of the village. This, of course, relates to the history, often oral history, of the village. The core kin groups are those kin groups of the founding fathers of the village. In Dullah Laut, on Kei Kecil Islands, for example, it is *Ohoiroa Fauur* (a committee of eight core kin groups) that holds the *hak milik* over their village *petuanan*. In their history, it was the ancestors of these eight kin groups who established the village.

The fourth, that is the exclusivity of *petuanan laut* can be understood as the exclusive right of a particular social group to exclude others (outsiders) from exploiting their *petuanan laut* territory. Thus, when a village claims ownership over particular sea territory, meaning that that particular sea territory is the village *petuanan laut*, none of other villagers will be allowed to extract, particularly for commercial purposes, marine resources from that particular sea territory. However, there is an arrangement which makes it possible for outsiders to enter and make use of other's sea territory. This arrangement is a kind of a leasing system. In Kei Islands, for example, some outsiders-owned live coral reef fish businesses were allowed to fish in people's sea territory. This was possible because the owners of the live coral reef businesses had made a contract with the owner of the *petuanan*. An example of such a contract in Dullah Laut village on Kei Kecil Islands, noted that the villagers allowed the company to fish in their sea territory for two years. In return the company paid some money to the villagers. This money was used to construct public facilities in the village. In time of need, the company would also provide some additional financial support for the community. I should also add that it is usually common that outsiders who fish for subsistence need or recreation are allowed to do so. In this case, it would be appreciated if the outsiders ask permission from villagers through a village leader before they go to the sea.

The Sasi

The second element of the traditional marine resource management in Maluku is *Sasi*. This term refers to a system of beliefs, rules and rituals pertaining to temporal prohibitions on making use of a particular resource or a particular territory. The resource or territory can be individually or collectively controlled. When *sasi* is applied (*tutup*) to a particular resource, no one—even the owner of the resource—is allowed to make use of it until the *sasi* is lifted (*dibuka*). When the *sasi* is applied to a coconut tree, for example, it means that no one is allowed to harvest the coconuts or even take home one that has fallen to the ground. It is only when the *sasi* is lifted that the owner is allowed to do so. The same is the case when *sasi* is applied to territory. Human actions will be limited and extracting resources from that particular territory will be restricted.

In some villages, sea territory and resources are also target of *sasi* prohibition, in this case such practice is called *sasi laut*, *sasi meti* or *sasi labuhan* (the second word in each pair refers to local names of locally controlled sea territory). In Noloth village on Saparua Island, Central Maluku and some villages on Eastern coast of Kei Besar Islands, southern Maluku, *sasi laut* is

also called *sasi lola*. This name comes from the fact that main target of *sasi* prohibition is *lola* (*Trochus niloticus*). In Haruku village on Haruku Island, Central Maluku, *sasi lompa* is more popular than *sasi laut*. This is because the target of *sasi* prohibition is *Thryssa baelama* (Engraulidae), which is locally called *ikan lompa*. In some villages the *sasi* prohibition is applied to the whole petuanan laut territory but in some other villages this prohibition is only applied to some part of their sea territory. However, this prohibition is, commonly, applied for only some marine species. Other than *Trochus niloticus* and *Thryssa baelama*, tripang (sea cucumber) and some other marine shells use to be target of the *sasi* prohibition.

Rituals are performed in the time of opening and closing *sasi*. In Saparua and Haruku islands, the ritual of opening and closing *sasi* is led by a special committee called *kewang*, fattended by other villagers. In Kei islands the ritual is organised by the village head (*Orang kaya* or *Raja*) and village functionaries (*Saniri*) and is also attended by villagers. During ritual of closing *sasi*, meaning applying *sasi* prohibition, besides communicates with spiritual world for the success of *sasi*, the ritual leader will also explain the boundary where the prohibition is applied, the targeted resources, and the fine for those who violate the rules. When the ritual is finished, it is prohibited for all people to take the targeted resources in the sea territory. Some time, it is also prohibited to access the territory under *sasi* regulation or, at least, people activities in the territory will be very restricted. In Nolloth village, for example, it is prohibited to dive in sea territory under *sasi*. The prohibition applies until the ritual of opening *sasi* is conducted. During that time, the *kewang* and village functionaries will do the surveillance and fine those caught violating the *sasi* regulation. Ordinary villagers might also report to *kewang* or village functionaries if they find someone break the rule, but it is only *kewang* and village head who have right to give the punishment.

The ritual of opening *sasi* will be performed after the *kewang* or traditional head of the village, by consultation with other village leaders, think that the resources are ready to be harvested or they are in need of money. In Nolloth village *sasi lola* used to be opened every three years, but since 1980s, they harvest *Trochus niloticus* every year. That means that they open the *sasi* annually. In Kei islands, the *sasi* is opened between one and three years time. Again the ritual will be led by *Kewang* or head of the village. In this time, the ritual leader will also announce that the *sasi* will be opened, who can go to the sea and harvest the resources, what kind of gear is allowed to be used, and so on. In the case of *sasi lola*, the size of *Trochus* that is allowed to be taken is also informed, usually the smallest shell allowed to be taken is six centimetres. *Trochus* that its shell is smaller than six centimetres is, usually, forbidden to be taken. Villagers who are allowed to participate in the harvest are also prohibited to use any gear except goggle. So, they dive with bare hands.

If we ask where the money from the harvest go? Again, the answer is different from one place to other. In Saparua, all the revenue is taken by the village official and used for constructing or maintaining village public facilities. Those who dive are given some compensation depending on the harvest they get. In villages on east coast of Kei Besar Islands, every house hold in the village has the right to have a representative in the harvest. Thus there will be one person, usually male, for every house hold takes part in the harvest. Everybody will get all the money from their harvest but some percentage will be deducted for the village which will be used for public facilities. Some villages divide their sea territory into two or more blocks, and they make an agreement on the distribution of share taken from every block. For example, the harvest from blok A is given for Church, the harvest from blok B for village and from blok C for the people who harvest the resources.

When *Kewang* or head of the village considers that the harvest is enough, they will ask every body to stop taking the resources. Soon, the ritual of closing *sasi* will be performed which means that the territory or resources will be closed from any extraction until the *sasi* is declared open with a ritual of opening *sasi*.

PROSPECT AND PROBLEMS OF INCORPORATING TMRM

To evaluate prospect and problems of incorporating TMRM in Maluku in fishery management, we should, at least evaluate the practice of communal marine tenure and *sasi* from three different perspectives. These perspectives cover biology or ecology, economy and socio-anthropological perspectives. In this paper, however, I will only use socio-anthropological perspective focusing on socio-cultural issues. To start with, let me say that TMRM in Maluku seems to offer some good aspect for establishing a better marine resource management. First, if we look at the practice of communal marine tenure, this practice is much better than that of what Hardin (1968) calls as public property regime or the commons. In some cases communal property rights is also better than private property or sole ownership (see Balland and Platteau 1996, McCay and Acheson 1987 for criticisms on these two theories). Berkes (1989, 11) even observes that communal property rights have five important roles. First, they ensure livelihood security, by enabling every member of a community to meet their basic needs through assured access to vital resources. The second role is conflict resolution. Berkes (1989, 11) believes that communal property rights provide a mechanism for the equitable use of resources with a minimum of internal strife or conflict. Third, community property rights serve to bind members of the community into a single compact unit. This is because community property explicitly links group membership and resource control. This facilitates teamwork and cooperation. Fourth, communal property rights are conservationist since they are usually based on the principle of 'taking what is needed' (Berkes 1989, 12). Finally, communal property rights are said to help maintain ecological sustainability, with communal management often incorporating ritual practices that synchronise resource exploitation with natural cycles. Although, I do not think that the practice of communal marine tenure in Maluku fulfills these five functions properly, I am sure that the practice some benefits for the community, marine resources as well as the environment. At least, the communal marine tenure has functioned to reduce the pressure on the sea by excluding non-community members from extracting their sea resources. Or, if we think that the leasing system works in a contradictory way, the leasing system is better than open access regime.

The practice of *sasi* is an additional point to the traditional marine resource management in Maluku. Although, some historical studies on *Sasi* show that the application of *sasi* in the past was more driven by economic and political motives (Benda-Beckmann, F. von, K. von Benda-Beckmann and A. Brouwer 1992; Zerner 1994), the current practice of *sasi* demonstrates that 'green' motive has been accommodated. Actually, even if we thought that *sasi* was not changed meaning that the practice was more driven by economic and political interests, it did not eliminate its conservational effect. The fact that the practice of *sasi* has restricted people from extracting sea resources, I believe, has made the resources still present in the territory. I could not imagine that *Trochus niloticus* was still available if *sasi* had never been practiced.

Now, let me consider some problems of the practice of communal marine tenure and *sasi* in Maluku. On communal marine tenure, I think that Maluku people do not see it only as a means of marine resource management. Communal marine tenure is an integral part of the social construction of the community. As I have discussed above, the *hak milik* is an exclusive right of

the core kin groups of the community. Thus, the practice of communal marine tenure, somehow, expresses the social stratification in the community. This principle does not only raise question on the distributional equity of marine resources as it is thought to be a function of communal marine tenure (Berkes 1989) but also question of its effectiveness in situation where there is a conflict between segments in the community. To make this point clear, I would like to explain two examples. The first example concerned on a conflict in Dullah Laut Village in Kei Kecil Islands. To make the story short, there was a conflict between two political factions in the village, the leader of each faction wanted to be become the leader of the village (*kepala desa*) (see Adhuri 1999 for more detailed discussion). As in other part of Indonesia, to win the position people should get the majority vote from the villager as well as political support from local government. What happened was that in order to win the support from villagers and local government, one of the leaders leased their sea territory to a live reef fish business that most likely would use cyanide in their fishing operation. For this leader, the leasing was very strategic because (1) the 'illegal operation' of the company was protected by local military personals who were politically strong. This meant that his connection with the company could be used to gain political support from local government. Secondly, the company agreed that, in compensation for fishing operation, he would give some money and additional financial support to the leader of this political faction and employed villagers in his business. This agreement, of course, was thought to stimulate vote from villagers as well as economic benefit. The second was a conflict between two different villages; the triggering factor was the *petuanan laut* boundary between the two villages (see Adhuri 1998). My research revealed that the conflict was not only about the boundary but it was a conflict between the noble and commoner groups. The noble claimed that the commoner who lived in different village should be under their control, meaning that the leader of the commoner village should be someone from the noble member. Because politically the commoner was under the control of the noble, their communal property (*petuanan*) should also be under the control of the noble. Of course, the commoner contested this claim. Since they lived in separate village, although there were the commoner, they had rights to govern their village both politically and territorially. These two examples show that in conflict situation the practice of communal marine tenure was considered more as a political as well as economic means by the villagers to win the conflict. In these circumstances the resource sustainability of marine resources was not regard as an important issue.

The practice of *sasi* faces the same problem. When I was in Haruku in 1993, there was an election for the village new leader. There were two candidates involved in the contestation. One candidate was acting as the temporary village head and the other one was the former head of the village who wanted to be re-elected. At that time, I also observed that the *kewang* did not function properly, meaning that the practice of *sasi* was not well attended. I had been told that in normal situation *kewang* used to hold a regular meeting, at least once a month, but when I was there for the last six months or so, no meeting was held. When I asked people what happened, I was told that the *kewang* was split into two political factions. The leader of the *kewang* was in the ex-village head's faction. Thus, according to some informants, the dis-function of *kewang* was not because of the conflict between the *kewang* members but also it was for the benefit of the ex-village leader who was supported by the leader of the *kewang*. When I asked why it was so? I was explained that the practice under the leadership of the ex-village leader was awarded *kalpataru* (an award given by the Indonesian government, through the Ministry of Population and Environment, to those who are considered to have made a major contribution to the environment). Thus, *sasi* the performance of *sasi* counted for the political standing of the

village. Therefore, if *sasi* was not performed well at that time, it was thought that it would lead people to think that the acting village head did not have capability of keeping the good standing of the village. That meant that the ex-village leader was better than the acting head of the village. By this, the ex-village head was expected to win the villagers' vote as well as support from the local government. Again, this case demonstrated how political interest discouraged the practice of *sasi*.

CONCLUDING REMARKS

To conclude my paper, let me discuss briefly one of the directions of the development of theoretical discourse on marine resource management. I think, the first theoretical foundation of marine resource management was Hardinian notion of 'tragedy of the commons' which at practical level was mostly considered as favouring the centralised fishery management. This theory was criticized by studies that observed the existence of traditional marine tenure, often in the form of communal sea tenure. On the one hand, these studies proved the weaknesses of Hardinian assumption of individualistic tendency of people in exploiting the commons, and, on the other hand, saw that some traditional communities had been practicing a better marine resource management. At practical level, these theories support what is popularly called community-based marine resource management that is a management practice where community plays the most important rule in managing the resources based on their own management system. Again, this theory and practice were not applicable in all situations. Some studies prove that community has a limit and their system has some weaknesses. Finally, collaborative management (Co-management) is considered to offer a better solution. Co-management which, in essence a management practice where government share rights and responsibilities with community in accordance with their capability and interest, is thought to be able to eliminate the weaknesses of both government and the community on the one hand. And, on the other hand, it will combine the strength of these two agencies. Later, other than community and the government, other stakeholders such as non government organisations (NGOs), research institutes and other stakeholders are also believed to strengthen the management practice if they are accommodated to take part in some of the stages of management practice.

To put my paper in this context, I believe my discussion has demonstrated that TMRM offers some good elements for creating a better marine resource management. But, at the same time, the above discussion also shows some problems that have constrained the effectiveness of TMRM. I believe, if we think in the framework of Co-management, government and other stakeholders support to local communities might be able to enhance the effectiveness of the TMRM and, in the same time, assist the community to get rid of the problems arising in the application of their TMRM. Inspired by the practice of marine tenure in Japan (Ruddle, K and T. Akimichi. 1984), I would suggest that with the assistance of other stakeholders, local community in Maluku might be able to loosen the practice of marine tenure and *sasi* from its socio-cultural connection. I believe, it is only with the assistance of other stakeholders that the community can be led to think their TMRM more as a means of resource management rather than as a political commodity. Thus when there is a political conflict in the community, the practice of TMRM will not be influenced too much.

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