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Aqua in the archipelagic state: human security of Sama Bajo fishers in Eastern Indonesia

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Abstract. This essay examines the differences and similarities in the *Sama* Bajo human security that have been patterned by transformation *Sama* Bajo and land-dwellers social relation in three *Sama* Bajo communities in a marine protected area. Using semi-structured interviews, questionnaires from 120 respondents of the *Sama* Bajo fishers, literature studies, and positivistic research analysis, this study has found that generally, the *Sama* Bajo in Eastern Indonesia threatened their human security because of several issues. However, the research results indicate that the degree of insecure will be different based on five indicators of *Sama* Bajo human security.

1. Introduction

A concept of human security is a concept that began to be loudly voiced in the postcolonial era [1]. Even in the era of globalization, as it is today, the concept of human security has become an essential discourse because of the increasing uncertainty at the individual level, both due to liberalization or free-market waves and the increased human risk caused by the threat of climate change. Winarno [2] argued that globalization had brought the world toward economic competition that causes excessive exploitation of resources.

Threats to human insecurity, in the contemporary era, occur without exception to coastal and small islands population. Many millions of people living on islands and along coastal zones in this vast region rely extensively on the ocean and its resources for sustenance, livelihoods generally as fishermen, and cultural continuity [3,4]. While, many coastal communities are poor and particularly vulnerable to extreme weather events such as severe storms, cyclones, king tides, and the cumulative impact of anthropogenic marine resource degradation [5]. The globalization era makes the sea, coastal, and small islands a new market and open resource source of exploitation. For example, Berkes et al. [6] defined exploitation as urbanization, industrialization, aquaculture intensification, and large-scale fisheries. Later, [6] argued that the increased activity in the sea causes increased pressure on marine resources.



Increased exploitation of marine resources is partly due to increased market demand for sea products, even those not previously used, and ultimately leading to the depletion of these resources [5,6]. Thereby, the poverty and livelihood insecurity of many small-scale fishers engenders pressures for over-fishing, but also reflect the inability of many fishers to successfully capture more value from their fishing activity [7]. As well, with all these pressures, community values are constantly being eroded, and communities are often at risk of losing their identity [8,9].

In this paper, we will explain the diversity of human security of the *Sama* Bajau as an indigenous maritime tribe artisanal fisher community in South-east Asia with case studies in marine protected areas in the Eastern of Indonesia. Hoogervorst [9] notes that, according to the geographer Sopher (1965), Southeast Asian nomadic boat dwelling communities numbered less than 20,000 souls at the time of his research. At the same time, they are found across an area stretching over more than 2,000 miles east-west and 1,600 miles north-south. Based on ethnolinguistic affiliation, the “boat dwelling” populations of Southeast Asia can be divided into three groups: (1) the Sama–Bajau, inhabiting parts of the Philippines, Borneo, and eastern Indonesia, (2) the Moken, inhabiting the Mergui Archipelago and nearby coastal settlements belonging to Myanmar and Thailand and (3) the Orang Laut, inhabiting the coasts and waters of the Thai–Malay. Another researcher, Stacey [10] described that based on the Sama Bajo’s recent estimates indicate a total population of approximately 1.1 million, with around 200,000 living in areas of high biodiversity in the islands of Eastern Indonesia, 347,000 in Malaysia (Sabah) and 564,000 in the Philippines. Despite its high population and their main role as fish producers in several countries in South-east Asia, previous studies have reported that the *Sama* Bajo was mostly landless and vulnerable communities not only in the past but also in the contemporary world. Hoogervorst [9] showed how the *Sama* Bajo process of marginalization. His thesis found that since the emergence of large-scale harbor polities in Sumatra, Borneo, and other parts of insular Southeast Asia, nomadic maritime communities have intermittently appropriated the roles of the protege's, outlaws and victims in a multilayered and multifaceted interplay of seaborne navigation, commerce, and warfare. Later, Hoogervorst [9] argued that in 19th and 20th-century developments have largely confined these communities to the margins of society, while their erstwhile “migratory” has become the battleground of competing for “globalized” crime syndicates, maritime terrorists and post-independent nation-states with modern navies.

Previous studies have reported that The *Sama*, who settled in Indonesia more secured than any of the *Sama* in other countries. For instance, a study of Hoogervorst [9] shows the boat-dwellers in Sabah as stateless and are regarded as illegal migrants from the Philippines. While several boat-dwellers in Southeast Sulawesi, who are Indonesian citizens, have accessed the emergence of development and poverty alleviation programs, it is not only national programs but also programs set up, especially for *Sama–Bajau* communities. The human security of many boat-dwellers communities in Sabah endangered and are unable to benefit from any of Malaysian developments. Different from the *Sama* Indonesia, due to the issue as mentioned earlier because of questionable citizenship. Furthermore, Acciaioli [11] have reported that boat-dwellers in Sabah, called Orang Laut, represent a threat to Malaysian national sovereignty. The Malaysian government believes that the Orang Laut has collaborated from some forces from the southern Philippines (the kidnapping operations of Abu Sayyaf along the eastern coast of Sabah and the militancy of the Sulu Sultanate in efforts to reclaim Sabah as its own, culminating in the Tanduo Incident). So that, Orang Laut be political targets of such exclusion, the Bajau Laut have also been rendered mostly invisible concerning the provision of state services and the imposition of conservation initiatives. On the contrary, Acciaioli [12] argued that despite the Indonesian *Sama* Bajo being labeled in some government publications and programs as one of the odd tribe to be targeted for 'socialization,' at least they do conform to the maritime conceptualization of archipelagic culture. Such anthropological concepts of culture value, however useful when contextualized in the armor of adaptive strategies and economic enterprises of members of actual societies, may also be used to perform ideological work in the interests of state penetration when essentialized into criteria of belonging to a broader cultural unity, it called as 'Bhineka Tunggal Ika.'

By focusing on the three cases of the *Sama Bajo* in Eastern Indonesia, we will describe the diversity of complex and dynamic human security of the *Sama Bajo* as a product of social-political relation land-dwellers communities. The central question in this paper asks “what are the differences and similarities in the *Sama Bajo* human security that have been patterned by historical and contemporary transformation *Sama Bajo* and land-dwellers social relation taking into account amongst *Sama Bajo* Mola, *Sama Bajo* Mantigola, and *Sama Bajo* Lamanggau in a marine protected area as the case studies.

2. Methods

Data for this research were retrospectively collected from a survey that was conducted from May to July 2019 at Wakatobi Marine National Park (WMNP). Using semi-structured interviews and questionnaires, we collected human security data from 120 respondents. A total of respondents was taken from 40 heads of *Sama Bajo* households in Mola village in Wangi-Wangi island, Mantigola village in Kaledupa Island, and Lamanggau village in Tomia Island respectively. To determine the respondents, we used simple cluster random sampling. The subjects were selected in their village, the basis of social status, and their connectedness to land-dwellers. Besides the survey, we have done in-depth interviews and participant observation to get the real picture of different human security social facts in the fieldwork.

We used Excel 2019 program to analyze the data. We describe the data using cross-tabulation to investigate the differences in human security amongst three Eastern Indonesia *Sama Bajo* communities. Human security variables which are described are (1) *Sama Bajo* household income; (2) *Sama Bajo* household food expense; (3) *Sama Bajo* household non-food expenditure; (4) the degree of *Sama Bajo* social identity; and (5) frequent of migration as a core of *Sama Bajo* culture.

Article references were searched for additional relevant publications by the Author when she attended the summer school program, security governance, and conflict resolution short course at the University of Amsterdam in June until July 2019. The desk study is pivotal to get a figure on the concept of human security and the recognition of the diversity of human security in other parts of *Sama Bajo* area such as Moken in Myanmar and Thailand, Orang Laut in Sabah, and *Sama Bajau* in Mindanao South Philippines.

3. Results and discussion

A concept of human security of *Sama Bajo* related to their high risk of the anxiety of open resources and their identity as a nomad tribe. *Sama Bajo*, who transformed to be a part of the land-based community, deal with transformation way of life, from adaptation to adjustment. In the development era, the transformation has a significant impact on their human security even though they are Indonesian legal citizens.

Table 1. The fishing income of Mantigola *Sama Bajo*, Mola *Sama Bajo*, and Lamanggau *Sama Bajo*.

Fishing Income (IDR)	Mantigola <i>Sama Bajo</i>		Mola <i>Sama Bajo</i>		Lamanggau <i>Sama Bajo</i>		Total	
	n	%	n	%	n	%	n	%
>43,237,623	4	10	0	0	4	10	8	7
43,237,623 – 3,729,558	28	70	26	65	34	85	88	73
<3,729,558	8	20	14	35	2	5	24	20
Average	19,629,499		12,155,150		27,480,450		120	100

The data in Table 1 shows that *Bajo* Lamanggau fishers obtain the highest capture fisheries income amongst other *Sama Bajo* communities. The average fisheries income of *Bajo* Lamanggau, from demersal fishing activities in Tomia reefs, is IDR 27,480,450 per year (1 US\$ equal to IDR 13,963). Meanwhile, *Bajo* Mantigola fishers, on average, the income earned are IDR 19,626,499 per year. Besides, migrate to Malaysia, *Sama Bajo* Mantigolas' money mostly comes from demersal fishing, pelagic fish, and gleaning activities. Mothers and children cultivate *meti-meti'*, *Nuba* or gleaning for sea cucumber, little octopus, sea urchins, and varied clams during low tide at nearby residence waters, and

Kaledupa reefs. While, Banda sea is a pelagic zone such as skipjack tuna, and yellowfin tuna. While Molas' source of income mostly comes from calamary and octopus fishing, demersal fishing in Kapota reefs. Molas' small-scale fishers join to troll line fishing group to the pelagic zone to improve their income

Interestingly, even though Mola *Sama* Bajo fishers are the lowest fishing income than Mantigola and Lamanggau, the Mola *Sama* Bajo boat-dwellers are the highest in the non-fishing revenue. Table 2 shows an average of non-fishing income of Mola is IDR 32.584.000 per year. The source of non-fishing income comes from catch trade by Mola women in the central Mola market, motorcycle service, grocery trading, haberdasher, boat, and souvenir craftsman. The income from non-fishing activities will improve human security. Particularly to fulfill the food security of Sama Bajo Mola, especially when the Mola boat-dwellers encountered peak wind season in May until July.

Table 2. The non-fishing income of Mola Sama Bajo, Mantigola Sama Bajo, and Lamanggau Sama Bajo.

Non-Fishing Income (IDR)	Mantigola <i>Sama</i> Bajo		Mola <i>Sama</i> Bajo		Lamanggau <i>Sama</i> Bajo		Total	
	n	%	n	%	n	%	n	%
>45,697,835	0	0	10	25	0	0	10	8
45,697,835 - 23,735,169	0	0	7	17.5	0	0	7	6
<23,735,169	40	100	23	57.5	40	40	103	86
Average	360,000		32,584,000		380,000		120	100

On the contrary, Mantigola and Lamanggau have the lowest non-fishing revenue. We found that this tendency is closely related to the social relation between boat-dwellers and land-dwellers in the economic sphere. For example, the Mantigola, because of stigmatization about the past with Kaledupa land-dwellers, coupled with the fish poisoning case in 2017, related them as main producers in Kaledupa, the boat-dwellers can't easy to get the livelihood opportunities inland. Sometimes we found the boat-dwellers unwilling to find a job like land people because they believe that to be a fisherman is the prestige and cultural identity of *Sama* Bajo. This identity is what distinguishes them from land people. None the less, women of boat-dwellers more open in relation to the land dwellers, especially about trade. In Mantigola, we found the source of income comes from women of boat-dwellers through trading fish catch and salty fish with the land-dwellers. Stacey [13] point out that cash is essential for the boat-dwellers to purchase non-marine foodstuffs needed for their diet, especially the staple cassava flour. Their inability to grow any food on the islands of the park, to which they landless, coupled with the diminution of opportunities to access cash due to restrictions on reef fishing and collecting, has decreased their access to essential components of their diet, thus increasing their food insecurity.

As mention earlier, for the *Sama*, a significant purpose of expending their income is to fulfill their food as basic needs. Table 3. shows more information regarding the proportion of boat-dwellers based on their food expenses. The majority of Mantigola boat-dwellers expense almost IDR 2.862.170 to 895.131 per month (92.5%) for food, likewise with the Mola (70%) and the Lamanggau (80%). Nevertheless, Lamanggau is the highest average of food expenses than others. Regarding the research result, the number of household members must be an essential consideration of the value of food expenditure at the *Sama* household level. We found that in one stilt house consists of several households. Living together increases their security not only for food but also for sharing procreation for their young generation. Moreover, the Indonesia government provide social protection program, such as rice for poor or "Raskin," that decrease food expense for every *Sama* household. Besides reciprocal food exchange amongst the *Sama* household.

Table 3. Food expense of Mola Sama Bajo, Mantigola Sama Bajo, and Lamanggau Sama Bajo.

Food Expense (IDR)	Mantigola <i>Sama</i> Bajo		Mola <i>Sama</i> Bajo		Lamanggau <i>Sama</i> Bajo		Total	
	n	%	n	%	n	%	n	%
	>2,862,170	0	0	12	30	8	20	20
2,862,170 – 895,131	37	92.5	28	70	32	80	97	81
<895,131	3	7.5	0	0	0	0	3	3
Average	1,250,102		2,180,750		2,205,100		120	100

The United Nations Development Program (UNDP) defines human Security as 'safety from chronic threats such as hunger, disease, and repression' and as 'protection from sudden and hurtful disruptions' [1]. On the other hand, Shani [1] in his review about Giddens theory about self-identity, argue that the ontological security is post-secular conceptions of human Security, by acknowledging the role which culture and religion in a thick sense, can play in providing answers to existential questions concerning the 'basic parameters of human life,' namely, existence and being, finitude and human life, the experience of others and the continuity of self-identity. We have described human security issues about the boat-dwellers from the perspective of livelihood and food security. Later, we will explain about ethnic identity as an important part of *Sama* Bajo. Essed [14] argues that race and ethnic group positionings are fraught with practices that privilege some and exclude others on racial or culturally deterministic grounds. We assume that cultural identity reflected the boat-dwellers freedom to self-actualization of their way of life. We use two concepts from Stacey [10] about the four sets of *Sama*-Bajau specific values, specifically identity and spatial mobility.

This research assumes that human security on the *Sama* occurs when respondents perceive themselves on one side as boat-dwellers or "*Sama*" and the other hand as Land-dwellers or "*Bagai*." Meanwhile, if a respondent is strong in the *Sama* Bajo identity, it means a sign that the boat-dwellers in unsecured. Because it is a sign of the strength of the *Sama* Bajo group exclusivity. To assess social identity, we have asked the respondent for several questions and statements to their perception about their identity.

Table 4. The social identity of Mola Sama Bajo, Mantigola Sama Bajo, and Lamanggau Sama Bajo.

Social Identity	Mantigola <i>Sama</i> Bajo		Mola <i>Sama</i> Bajo		Lamanggau <i>Sama</i> Bajo		Total	
	n	%	n	%	n	%	n	%
	Identified as both <i>Sama</i> and <i>Bagai</i>	0	0	39	97.5	39	97.5	78
Identified as <i>Sama</i> only	40	100	1	2.5	1	2.5	42	35
Identified as <i>Bagai</i> only	0	0	0	0	0	0	0	0

As seen in Table 4, there are all of the respondents or 100% who identify themselves as the *Sama*. While, Mola and Lamanggau, interestingly, there are mostly identified themselves as both *Sama* and *Bagai*. A respondent from Lamanggau told us that social integration through several channels disguises their firmness of *Sama*. The channels are living together in the sedentary residence, marriage linkage, economic trade, sharing knowledge, and skill with Tomia land-dwellers who are mostly skilled demersal fishers. Likewise, the Mola boat-dwellers who live on Mandati land interact intensively in business trade in Mola central market. Also, they interact with Lia and Waha fishers, and they are widespread of social networking to other land-dwellers beyond their village for trading their catch.

Despite social identity, frequently of the *Sama* migration be the focus of further analysis. In terms of spatial mobility of the *Sama*, the boat-dwellers perception of the sea as an open space of living and economic trading, as well as the *Sama*'s notion of freely moving through that space as performing their social identity as an iconic maritime tribe and generating their world [16,11].

Table 5. Migration frequency of Mola Sama Bajo, Mantigola Sama Bajo, and Lamanggau Sama Bajo, the Year 2019.

Migration Frequency	Mantigola <i>Sama</i> Bajo		Mola <i>Sama</i> Bajo		Lamanggau <i>Sama</i> Bajo		Total	
	n	%	n	%	n	%	n	%
	More than 13 times per year	4	10	0	0	10	25	14
13-2 times per year	30	75	8	20	26	65	64	53
Less than 2 times per year	6	15	32	80	4	10	42	35
Average	6		1		9		120	100

The data in Table 5 shows that *Sama* Bajo, who most frequently migrated outside the village area, is the *Sama* Bajo Lamanggau. On average, Bajo Lamanggau fishers have spatial mobility in the past year nine times, mostly migrate to Pepela Roti Island. A total of 10 Bajo Lamanggau respondents or around 14% of small-scale fishers migrated out of the village more than 13 times. While Bajo Mantigola fishers migrated to outside the Mantigola village are approximately on average six times. The *Sama* Mantigola, who are young men and products, tend to migrate to Malaysia to find work as laborers on fishing vessels managed by large fishermen in Malaysia. Bajo Mola fishers are the lowest Bajo group migrating outside the village. Thirty-two Mola respondents or around 80% of respondents only migrate out of the Mola village 1-2 times a year. Stacey [10] state for at least a century, Indonesian *Sama*-Bajau men from Mola village in the Wakatobi region have engaged in long-distance migrations or *lama* to a village in Rote Island, Nusa Tenggara Timor Province, and southwards to access fishing grounds in Northern Australian waters. Moreover, Pepela in Rote island, *Sama*-Bajau fishers, can use the village as a seasonal base for fishing forays. Some may reside there for months during the fishing season, while others may stay indefinitely. However, fishers still maintain close social and economic connections to their home villages and travel back and forth over the years for various social, economic, and cultural purposes. In the present, it is complicated to find Bajo Mola people who migrate to Pepela. Moreover, to cross the Indonesian-Australia border or known as Australia Fishing Zone (AFZ) to catch sharks (*ngiwang*) and others protected fishery resources. We interviewed the head of a village in Mola, who is ex fisher who across AFZ to catch a shark. He told us that Pepela is a shelter for Wakatobi boat-dwellers to find cash from AFZ. Even though, to find cash in AFZ is high risk and endanger the boat-dwellers, a lot of money is a strong allure for *Sama* Bajo fishers, besides visiting relatives. Arrested by the Australian military is also seen as an effort to get a chance to get a little income earned by boat dwellers fishers from WMNP while incarcerated in Australia. The money will usually finance them back to Pepela.

4. Conclusion

Nevertheless, the most prominent finding to emerge from this research is that Mantigola *Sama* Bajo most threatened than other boat-dwellers communities in WMNP. This study has demonstrated that the Mantigola boat-dwellers have a strong identity as the *Sama*. Accordingly, it may be supposed that Mantigola boat-dwellers can't get enough to access livelihood opportunities outside fishing activities. Furthermore, *Sama* Bajo Lamanggau seems safer than *Sama* Bajo Mantigola. However, migration by some Lamanggau boat-dwellers to Pepela threatens their security because the opportunity to pass AFZ is more significant. Also, the *Sama* Lamanggau is easy to involve in transnational crime on the Indonesian-Australian border. Finally, Mola *Sama* Bajo has an excellent opportunity for their human security, because of the plentiful livelihood opportunities, both fishing activities, and non-fishing activities. Although, compared to the other two boat-dwellers communities at WMNP, it must also be a concern that Mola threatened with the extinction of its cultural identity as the *Sama* Bajo people. An implication of this is the possibility that in the future of the *Sama*, Bajo research must emphasize the role of land-dwellers who shape cultural values and livelihood characteristics from amongst the *Sama* communities in WMNP. According to research findings, we believed that understanding for the types of land-dwellers their impact for the *Sama* Bajo human security issues. It could be the basis of a specific design for the *Sama* social intervention to improve their human security and to reduce their illicit acts.

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