

“METRO ISLAND” A PROTOTYPE CONCEPT

*The Representation of Ethnic Maritime Societies Frame
in Indonesia*

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Abstract

This paper is a very preliminary study on maritime ethnic life in Indonesia is more represented in small city islands, so called concept of ‘Metro Island’. Areas of this study is Sapeken Island has an area of 65.14 hectares with a population of 8,312 inhabitants which means that the population density of this island is equivalent to 12,700 people/km² which is a very high density class, even more than other big cities in Indonesia such as Jakarta or Surabaya. Label of ‘Metro Island’ adopted the parameters of life in a city such as demographic issues, ethnically diverse, and the existence of culture among ethnic acculturation or cultural fusion accordance with the conditions of cities in mainland.

Rapid Integrated Survey is used as a method in this research to inventory indicators of both physical and non physical that there should be minimal in an area with a label of the city. Identification is done on a scale preliminary analysis by mapping the availability of freshwater, energy, telecommunications, infrastructure, environmental quality and ecological mapping using interpretation of high resolution remote sensing imagery data approached. Initial hypothesis

of this study is that a 'metro island' ecosystem is always occupied with excellent sea waters condition due to these factors as initial capital of the sustainability of a 'metro islands' that still rely on marine resources as the base primary economic sector in the community.

Key-Words: Metro Island, Small Island, rapid integrated survey, maritime ethnic, marine resources

Introduction

Currently, general perception of ethnic maritime in Indonesia is as a coastal community with poverty and underdevelopment conditions. One of the icons of the most famous maritime ethnic is the tribe of Bajo and Sama which are always associated with the small islands off the coast of Sulawesi. The emerge fact is that the rate of poverty and underdevelopment condition of Bajo tribe is as well as other maritime ethnics, including education aspect that is not their life priority. The Bajo life in general is still focused on short-term survival on remaining of marine resources. Therefore, they prefer to life in small islands rather than having to socialize with other community in land area. Their livelihood is as traditional fishermen but when fishing they still use traditional tools without the touch of technology modification, so that their existence depends on marine condition with good ecosystems and is assumed to have sufficient fishery resources (Zacot, 2008).

Their subsistence on fishing has become a very strong tradition lasts for generations and caused them sticking in the chain of vulnerable life. These conditions made the ethnic of Bajo as an icon of the marginal maritime community and increasingly pressed by the expansion of other coastal communities who exploit fisheries resources with greater comprehension. It is a reason why the Bajo live nomadic so called as the Sea Nomads (Ibid). The magnitude dependence of this ethnic to the factor of sea become a big question if how long their resilience in facing current maritime competition.

A maritime life activity in Indonesia is very outsized, but it seems not well explored and recorded, while the Indonesia government still relies on the resource land areas. This causes the data associated with maritime life in

Indonesia is still very diminutive, including scientific research in this area. The Bajo is only a part of the cultural wealth of maritime homeland, while other tribes such as Bugis, Mandar, and Laut tribes are the Indonesia maritime ethnic group as well. Previous studies showed that the Bajo represent the diaspora of this maritime ethnic life. The Bajo can be found in many countries such as Malaysia, Thailand, the Philippines, and Indonesia.

The distribution of Bajo in Indonesia is very infinite, ranging from Wakatobi in Southeast Sulawesi, NTB, NTT, East Kalimantan, even to the Aceh region of Sumatra. Bajo origins are still unknown and must be agreed upon. In its development, this community formed 'The Bajau International Communities Confederation (BICC)' and called themselves as a 'son of the world' which means the interest is not derived from a single country. This community is then signed up to the UNESCO (Abdul Manan, 2008, <http://telukbone.blogspot.com/2008/06/suku-bajosama-menyebar-di-lima-benua.html>).

In its development, the viability of this maritime ethnic life transformed into a 'sea people' within the meaning of life towards a more structured system of governance, with the remains at the site of small islands and the sea remains as the main medium of communication and transport between them to other communities. The interaction of this maritime inter-ethnic has made a new life model which occurs in several strategic places in the islands waters of Indonesia. Thus, the maritime ethnic diaspora makes a meeting point, on purpose or not, and then they have reliance for survival remain to be settled. This meeting point then arose into a new life, which incidentally has always been on a maintained ecosystem of coral island. The presence of sea life center is likely to occur simultaneously in several areas; however there is no strong evidence for the origin of the first center of this model.

The concept of growth centers on a site of small island like this is not excessive if called as 'metro island' in giving more meaning that this site represent the ethnic transformation of maritime life in Indonesia, or at least there is no appropriate term in Indonesian. This term is designed to strengthen the concept of 'metro island' on the international outlook, assuming that the existence of 'metro islands' in Indonesia will be one aspect of the wealth of cultural treasures to be explored further. 'Metro Island' at least has some inherent physical requirement at an island in

providing the minimum requirements of a life which can be prolonged. One of the requirements is the availability of fresh water that can meet the needs of society in a period of time. In addition, other environmental carrying capacity, especially marine area, at least has an adequate abundance of fish production, as well as the good ecosystem conditions for marine life as a major economic instrument in the region.

This study was designed as a stimulant to reinforce the concept of 'metro island' which in fact do exist as one of the ethnic representation of maritime transformation in Indonesia. The objectives of this research can be explained as follows: (1) to analyze the geographic objects of an island of 'metro island' using remote sensing instrument data and geographic information systems; (2) to describe the 'metro island' in the context of natural resources and the problems associated and its endurance.

Research Sites

The study was conducted at Sapeken Island that is a part of Sapeken District, the Regency of Sumenep, East Java Province. Sapeken District Office is located at the island, with a total of 39 islands of Sapeken District. Geographically, the island is located at 115.708°EL and 7.005°SL. We can use a regular boat for about 15 hours to reach the Island through Madura Island (the Port of Kalianget, Sumenep) – Kangean Island (Baguluk Port) – Sapeken Island. Other faster alternative is by using Express Bahari from the Port of Kalianget to Batuguluk Port at Kangean for about 3 hours, then continue by land public transportation for 2 hours through the Arjasa City up to the eastern part of this island at Kayu Waru Port. We then continue the travel on boat (the local called: *water bus*) along Paliat Island to Sapeken for about 2 hours.



Figure 1. The location of Sapeken Island

In this study, Quick Bird satellite image pan sharpened mode on resolution 0.61 m of the acquisition July 10, 2010 is used as the main media in the context of primary data acquisition. Satellite images will then be extracted into the ecological and other thematic information, verified with field observations to provide a description of current fact condition of Sapeken Island as the concept of *Metro Island*.

Based on the delineation of the Quick Bird satellite imagery, the area of Sapeken is about 65.45 Ha. The maximum height of the land is only about 2 m dpal and, with a maximum slope in the range of 0° - 2° .

Method of Research

This study explores as much information as possible related to the relationship between the function of abiotic, biotic, and culture, by looking at the concept of Sapeken Island as *metro island* in archipelago in the region. This study is also the integration of other studies with a concentration in social anthropology of the community of Sapeken Island. The stages of this research conducted can be described as follows:

First, The interpretation of remote sensing image and preparation of basic data and other spatial thematic: the stages was conducted to determine the existing feature in the research area related to the parameters of abiotic (infrastructure of mainland, water, housing, accessibility, condition of waters as bathymetry, the distance between islands, and the of information seabed cover), and biotic (vegetation, an indication of reef communities)

Second, interviews with respondents: interview was performed on all groups in society, this stage conducted since the beginning of the expedition of the survey from the island of Madura, by chance some of the respondents here are those derived from the target area of research, this information is initial data that can be used as a discussion (verification) with respondents residing in the target area of research. The interview process is then performed during the expedition between the Island of Madura and Sapeken which incidentally found more respondents at the Island of Sapeken. This is an indication that Sapeken is the high activity target to life as evidenced from the

communal movement in a short period. The interview process is then performed in situ from several community groups such as fishermen, businessmen, service sector, government, and education managers to obtain the data representation of culture in general and specifically for the field life.

Third, analysis and study of literature: a literature study on the concept of metro island was not discovered until the research is conducted. The term of metro island described above is intended to reinforce the phenomenon maritime ethnic life transformation in a relatively small island sites. More appropriate translation to the Indonesian can be interpreted as the 'Island City' because it is the facts of this island has in common a phenomenon as well as the cities in the mainland. Metro island does not in general represent the aspects of the mainland cities, but there are several key phenomena that can generally be equated with the life of the city on the mainland such as the phenomenon of population density, quite high activity of economic, population mobility, and other dynamics, although in extent the limitations of an island that automatically because the site would limit its quantification and frequency values of the parameters above, but once again the limitations of geography, metro island is likely to continue to grow in line with the development of maritime ethnic in Indonesia.

Fourth, the analysis conducted is to observe how far the relationship between abiotic-biotic parameter-culture in the dynamics process of Sapeken Island, to analyze the relationship between regions (islands) around, to give the impression of being at the components of the dynamics of life support such as availability of salt that is needed in the industry and commercial fisheries, cultural resources associated with the fishing waters, governance, indicators of economic sectors, education, issues arise related to general urban issues, such as issues of fresh water and waste as well as spatial analysis related to the question of why the development is concentrated on this small island? While the surrounding areas are not likely to grow even as other coastal areas in Indonesia which are likely deprivation.

Result: Rapid Mapping of Sapeken Island

Physical development is a small island in general is not as fast as the physical development of land areas related to the accessibility of the physical

infrastructure that are always brought in from outside the island. So it is with Sapeken which physically has no natural resources as the capital of the infrastructure, but until the research finished, the island is interesting for residential use of quarters maritime. It is quite fantastic number that more than eight thousand for the island with a size less than 1 km². Phase of the research survey include mapping activities related to identification of several thematic data using Quick Bird satellite imagery instrument on mode pan sharpened 0.61 m resolution acquisition July 10, 2010, the direct survey, as well as the integration with other secondary data as the input of spatial attributes. Rapid mapping output results in this study can be explained as follows:

First, Mapping of Administration and Demographics. The administration mapping conducted on administrative boundaries of villages and hamlets with the unit outer boundary is the detail coastline extracted from the visual delineation of Quick Bird image. The entire administrative boundary in the island using the road borders as administrative. Administrative boundary data are generated by GPS tracking of field surveys guided by a local guide who is quite experienced and highly controlled area of the island. The results of the line data of GPS tracking is then validated using a high resolution image with the help of some authorities (the heads of both village and the hamlets).



Figure 1. Administrative border of a hamlets



Figure 2. Administrative border of a village

Demographics population statistics of the Office of District and Subdistrict of Sapeken island used as the attributes of spatial data on the administration area

above. This demographic data will then be used to analyze the demographic aspects of Sapeken Island.

Second, Infrastructure Mapping. Infrastructure classification of the islet area is always associated with the potential of marine resources dominate of the island's life. Sapeken Island case, in this study, completed with the excellent infrastructure to support the entire scope of the dynamics of life in a very small area to reinforce the concept of 'metro island'. This suggests that the availability of infrastructure at Sapeken Island have been in such a way inherent in all life activities as well as other cities at the mainland. Mapping method for the infrastructure mapping is a direct check on the field with position verification using GPS. Determination of the infrastructure classification carried out through interviews with several key figures as a resource, this stage produces a list of inventory of the infrastructure of the island and subsequently carried out position checks and documentation in the field. The resulting of GPS data plotting for the infrastructure category is then overlaid with the Quick Bird satellite imagery data for the more precise positioning validation process. Infrastructure mapping in this study can be grouped into several classes include: fisheries infrastructure,



Figure 3. The resulting of infrastructure plotting

transportation, navigation, education, health, governance, public and social facilities, water supply, lighting, and telecommunications. From such classifications, it can be observed that the existence of the infrastructure at Sapeken Island is complete and represents a metropolitan life even in a very small scale.

Third, The Mapping of Seabed Cover. In relation to the mapping of seabed cover habitat, remote sensing has been used not only to map the habitat, but also to characterize the aspects of the health of coral reefs. Due to the limitations imposed by spatial and spectral resolution, the satellite imagery can not assess the health of individual reefs (Schuyler et al, 2005). The

methods on seabed cover mapping using the optical-based satellite image data have been much passed though it is still hampered by the issues on image quality, water quality, and by the spectral response of the underwater object itself. Digital interpretation to obtain the data acquisition of seabed cover in this study used the unsupervised classification method with *K-means* algorithm. The algorithm works by iterative procedure (repetition) which sets the initial clusters of pixel values, then classifies each pixel to the nearest pixel value, and the last one is calculating the average value of pixels in each cluster. The process performed several times according to the iteration input value by the operator until the results of the expected accuracy (Jensen, 1996, in http://www.yale.edu/ceo/Projects/swap/landcover/Unsupervised_classification.htm).

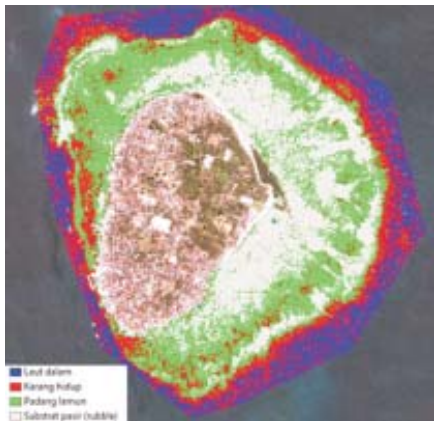


Figure 4. The mapping results of seabed cover of shallow-water of Sapeken Island

The selection method is intended for rapid observation effort to observe the health / life of coral reefs as indicators of water quality at Sapeken Island region. The result of digital interpretation method is then used to guide the delineation of the seabed cover visually.

The image above shows the distribution of coral reefs lie in the deep area, while the area of shallow waters dominated by seagrass vegetation with sandy substrate and some are found the fragments of dead coral substrate which appears with a brightwhite hue on the Quick Bird image of natural color.

Fourth, the Mapping on Freshwater Resources Condition. Aspects of fresh water availability is a necessary condition for the continuity of human life on earth. It also wants to be the first concern of this research when looking at the first time on the island with a population density area of <math><1 \text{ km}^2</math>. Most of the small islands in Indonesia do not have abundant fresh water resources, and this becomes a major problem where not all small islands inhabited by humans. Several studies from the literature study show that the fresh water at

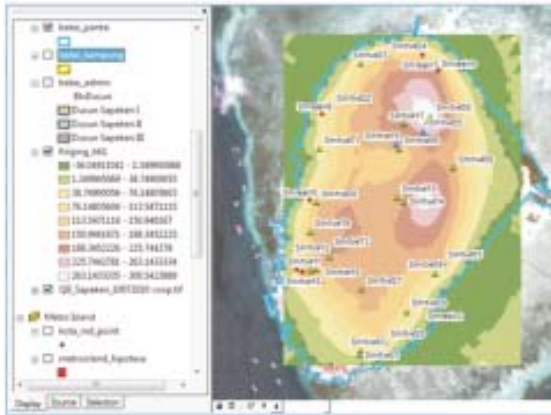


Figure 5. The results of data interpolation in depth of the shallow groundwater surface of Sapeken Island

Sapeken Island is the underground aquifer (water bag). It is reinforced by geological data showing the structure of the lithology in the upper limestone and marl at the bottom allows a fresh water trap from the leach-cesarean section at the surface (Ahmad Zainuri, 2007).

Related mapping of the availability of fresh water in this study aimed to determine the condition of surface soil water. The method used is to plot the soil well by using GPS, to measure the depth of ground water for a moment, and to conduct a qualitative salinity test to determine the effect of sea water intrusion. The selection of the location of groundwater wells were sampled using stratified random sampling method that takes into account the aspects of spatial distribution. The data of these three parameters are then spatialized to the form the distribution data for all ground water wells at Sapeken Island. This is the model of data interpolation along the depth of surface soil water and the salinity qualitative data or the level of groundwater salinity.

The process results of data interpolation in the depth of surface water of Sapeken Island show that the depth value of the groundwater surface in the eastern and northern parts is relatively shallower than other areas. The qualitative salinity test data of wells in this area shows the fresh class, it is also reinforced by the fact that some wells in this area are used for drinking water consumption by the people all over the island. Drinking water treatment infrastructure on the island is also located in this area.

Discussion: 'Metro Island' of Sapeken Island

This study was designed to analyze the concept of 'Metro Island' through a series of direct field observation, interpretation, and extraction of the factors of physical resources through high-resolution satellite imagery data, interviews with key person, the study of literature, and integrate the research parameters by using the instrument of Geographic information System . The pressure of this study is to provide a description of current situation of Sapeken Island as a prototype of 'metro island' includes a qualitative assessment of natural resources, the availability of fresh water as a necessary condition of life, socio-economic, infrastructure availability, demographics, culture, society, and the relational context of the islands through geostatistical analysis, which is the standard analysis in the assessment area that has the 'urban' label .

Natural Resources

In the context of natural resources, the condition in Sapeken Island is almost the same with the other small islands in Indonesia where marine fisheries are good supported by marine ecosystems and coral reef habitat. Based on direct field observations, the conditions of marine ecosystems and coral reefs habitat as the abundance indicators of reef fish is still very good in this archipelago. This is evidenced by the number of floating cages used by the fish collectors for holding as well as for cultivation of grouper and other reef fish species.



Figure 6. Kangean Islands region (red boxes) included in the *Coral Triangle* region and the path of the *Great Ocean Conveyor Belt* (image source: UNEP, WMO, WWF)

On a more micro scale to see the Sapeken island as part of the area of Kangean Islands located in the coral triangle region of the world where this has been an agreement as to the largest reef conservation area in the world. In addition, the island is also located in the flow path across the world (*the great ocean conveyor belt*) passed by the dominant ocean currents from the Pacific Ocean. Cross current paths of this world is warm, with a very large nutrient transport. Both of these factors make the reef fish resources in this area very large.

Viewed from a larger scale (macro), beaches typology is generally sandy that make the main substrate of seabed sediments, on the other islands in the context of the relatively small size indicates the absence of river channels on the mainland as the sediment transport media to the sea, these make condition of the waters of the islands are well preserved. This condition is also very supportive of the life and health of coral reefs and seagrass which in good condition during this research field observations. Marine fishery resources in the sector can not be separated from other resource tools. Geographically, this island is far enough from any accessibility, thus supporting the needs of the fisheries sector will be a problem if it has to come from outside the island.

One of the main support needs of marine fisheries sector is the salt used for industrial purposes in the sectors of fisheries, fishing purposes, and ice industrial as refrigeration and fish preservative. The survey results in this study also suggests that salt need both for the fishing industry and domestic purposes can be supplied from the salt ponds of the surrounding islands. One of the salt-producing islands closest to Sapeken Island is Paliat Island in the western part of this island. The observations and field check indicate that the salt pond area is not too extensive, but the production of salt ponds in this area can produce ± 200 tons salt/ha/year. The production of salt in this place is greater than the national production target.

In addition to P. Paliat, there are several other islands which also produce salt such as the Island of Pagerungan Kecil and Sadulang Besar on the eastern part of Sapeken Island. The tentative conclusion can be drawn that the concept of 'metro island' of Sapeken Island with emphasis on the management of marine fisheries resources as the main domain of activity of supporting life at the island are able to meet the basic needs sourced from the

local potential. These factors make the process in managing marine fishery resources still running very well in this region.

Availability of Fresh Water

The availability of fresh water becomes a special note in this study because fresh water is necessary condition for human survival everywhere. The results of the geological research related to reservation of fresh water in this Island shows that Sapeken Island is a bag zone of fresh water originates from the absorption section at the segment of Paliat Island in the past (ITS-French research team, 2002, and Ahmad Zainuri, 2007), in addition to the lithology material composition of this island, consists of limestone at the top part and marl on the bottom make water enter into the faults cracks, trapped and become the aquifer zone.

The abundant availability of fresh water makes one of the most decisive factors to Sapeken Island eventually evolved into 'metro island'. Qualitative field observations also showed that most of the ground water wells in the middle of the island is still in the category of fresh while the section with a distance of <100 m already showed the effects of seawater intrusion. The interviews with the owners of the wells used as the sample are also important to note that a change in salinity conditions tend to be higher during the rainy season, while the salinity of well water during the dry season is lower, though there are several ground water wells that are always continuously in a fresh condition.

These wells are used for drinking water intake for the entire population in this island of more than eight thousand inhabitants. While for the daily needs like bathing and washing the entire population use water sourced from their own wells. In the beginning, the use of drinking water of a few ground water well in this area based solely on the knowledge and confidence of local communities, but in line with the development and governance there, the accurate test of potable ground water in this area is conducted by the environmental officers of the Department of Health, conducted at regular intervals.

The topography is relatively flat and the distribution of the population that is almost spread throughout the island has the local government realized to address the problem of drinking water by building drinking water

treatment infrastructure, named HIPPAM (the Population Association of Drinking Water User). The drinking water infrastructure position is located in the middle area of north part and occupies most vegetated areas on this island. The infrastructure processes fresh ground water wells that have water quality standard test with debit of 2.3 liters / sec. Of this infrastructure, the installation of waterpipes is distributed to communities throughout the island. In addition to the infrastructure of drinking water, some people take drinking water accommodated in jerry-cans and then sold to other communities. This latter model still continues to this day to meet the need of drinking water for residents who are unable to install the installation of drinking water.

The presence of drinking water infrastructure and manual distribution model as shown below is still sufficient to meet drinking water needs of the entire population. The most important anticipation for future drinking water problem is how the effort to maintain the quality of ground water remains in a healthy condition for human consumption has remained stable with a given discharge of seawater intrusion problems also continue to run.



Figure 6. The condition of the drinking water needs in Sapeken Island that utilizes manual installation technology of drinking water and distribution.

Demographic and Socio-Cultural

Demographic composition is obtained through the last population survey data (in 2010) of the Village Offices and the District Offices as well as shown below.

Tabel 1. Population data of Sapeken Island (Population Census, 2010)

Village	Men	Women	HH	Population
Village Sapeken I	1.257	1.322	840	2.579
Village Sapeken II	1.062	1.234	646	2.296
Village Sapeken III	1.651	1.786	1.039	3.2327
Amount	3.970	4.342	2.525	8.312

With a total area of 65,149 hectares of Sapeken Island, the island's population density reached 127 persons/ha or 12,700 people/km². The density number is very high exceeding the density of the big cities in Indonesia as Jakarta, Surabaya, or Medan. This phenomenon is certainly a very interesting, not only strengthens the concept of 'metro island' with the indicators of high population density similar to the problem of urban areas on the ground. Population data is always associated with the topography of an area. It needs to be underlined that 'metro island' is possibility similar to Sapeken Island which are found in some archipelago points in Indonesia, although the amount or the level of population density is not always high. In addition, the population density in the concept of 'metro island' can not be used as the main demographic indicators as there are several other indicators that further strengthen the concept of 'metro island' which is generally also found in urban areas such as indicators of diversity of ethnicity or race, fusion of cultures occurred, as well as the diversity of its livelihood population.

The dynamics of life in Sapeken Island is so active; the dynamics starts from the harbor as the contact spearhead of the island's resident with other communities. From the point of these observations, it can be seen that the population livelihood are very diverse, ranging from fishermen, traders, government officials of harbor supervisor, security officer, transportation service providers of goods and people, to the transport workers and the activities of loading and unloading goods from ships dock on the port. The profession or livelihood is continuing in the inner region is also quite complex and is usually attached to a specific ethnic label with a particular profession as well, such as a group of fishermen and fisheries managers that are always associated with the Tribe of Mandar and Bugis, the Bajo who works as a traditional fishing, while the Javanese and Madurese are more general works on the trade sector.

While we're on the subject, in this study, there are some opportunities to participate in some events (rituals) of culture in society; from here it appears that the fusion of multi-ethnic culture in Sapeken Island has quite happened and walks in harmony. Other fact is the existence of a Chinese ethnic family that had long been at the island as the merchant. This suggests unconsciously that the fusion of culture happened at this island is the dynamics

of life and this becomes a pioneer to the 'metro island' which is more concrete in the future.

Infrastructure and Socio-Economic

The parameters of infrastructure and socio-economic adhere in any description of a city. Both seem are always associated with high quantitative values. It also occurs in Sapeken Island, at least when compared to the condition of most of the small islands in Indonesia, it can even be said in quite extreme conditions. The physical infrastructure condition in Sapeken Island is very advanced compared to the surrounding islands. In addition to the capital of the district, Sapeken Island also serves as a major transit point of transportation at the easternmost part of Java.

Basic infrastructures such as the market transport in the form of ports and roads, much education facilities from the basic level to the high one, healthcare, telecommunications, and energy to the power grid are available as well. Some of the basic infrastructures are still constrained, such as electricity supply that still relies heavily on diesel fuel supply; water supply is still dependent on the availability of electricity to the installation of central water management. Nevertheless, it is still very reasonable, and generally the adequacy of basic infrastructure and access to basic life has been very satisfied and can reach out to all households on the island.

Based on observations and interviews in the field, a general condition of socio-economic is good enough. This is indicated from a few basic parameters such as the condition of the house with fairly complete basic facilities like clean water, electricity, and the equipment of rooms / bathrooms available in almost every home. Most of the population also has complete secondary needs such as motor vehicle and the medium of television through a satellite dish network. Such conditions can be described as a general picture of society, while the example illustrates a more capable group of society is the ownership of a vessel or boat used for transportation services and equipment for fishing and other marine products.

Sapeken people is 100% Muslim supported by the infrastructure of worship places such as mosques spreadout at that area. Like

most Muslims in Indonesia and coastal communities in particular, one of the most fought for the purpose of life is a pilgrimage. In addition to the demands of duty of a Muslim who is able, pilgrim status is often associated in parallel with social status. It drawn from the implementation of the pilgrimage on the island is that all prospective of Hajj pilgrims performed through a special scheme (ONH +) that in fact the cost could reach more than twice of the pilgrimage regular cost. This is quite logical considering if they perform the Hajj pilgrimage through the usual mechanism, they will do pilgrimage in a very long time due to many factors constraints, such as geographic or hajj quota based on the number of Muslim population in an area.

However, this phenomenon also shows that the economic status of the communities prove that they are financially very capable. More extreme example is the presence of the mediator profession of fish that have a place to hold few commodities such as grouper reef fish. In living conditions, this grouper has a very good potential market for the price reaches three times higher than the condition of the dead grouper.

From in-depth interviews on these profession people, it is identified the velocity of money (cash flow) when they can reach 2 billion / week of the life grouper delivery transactions with the purpose of Bali, which is then exported to foreign countries through the exporters in Bali. Life of fishing communities at this island is very great; with a process of mutual exploitation of marine resources in particular fisheries which are economically very great. However, it is not accompanied by the presence of an adequate economic infrastructure. From the results of this survey noted that there are economic infrastructures on the island consists of only a post office, several cooperatives offices, and a financial transaction services, namely Western Union.

In terms of utilization of marine resources, fishing communities in Sapeken do not only exploited the marine resources and fisheries, but also very aware with the good quality of waters in this region, so it is often regarded as an opportunity to some groups of people who think on a basis business, by fattening small seed grouper taken from Bali to fill in a special boat transporting of live fish.

In the context of the wider social groups of the fishing community, the tribes of coastal communities at Sapeken Island still carry a form of each

cultural associated with this marine resource management sector. Bugis society more work as the controlling on business sectors in the coastal region, while the Javanese and Madurese engaged in the basic needs business sectors such as food, household, or services, while the Bajo tribes and several Mandar work as fishermen, fishing off and the other types of commodities at sea.

In some references mentioned that the problem of access-to-medium primary education has not been a priority for the needs of coastal communities. They tend to choose the instant path to get money through the profession as a fisherman at a very young age, and this process lasts for generations. Of information through television or other telecommunications media in the region have changed the paradigm that education is an important requirement, so there are many young people at this island seek higher education through high school or university at Bali and Java. However, the instant mindset to obtain cash in quick time also still affects some groups, who choose the path of their profession as a TKI (the Indonesian Workers) in foreign countries, though in the end they still choose to return to the island after having enough capital.

Conclusion

This research is an early stage in the context of the identification concept of *metro island* with the typical parameters analysis of a city adopted in the case of Sapeken Island. Sapeken Island is representations of the city (Metro Island) that there are also perhaps other some similar islands in Indonesia. The context of Sapeken Island as metro island concept can be used as a prototype hypothesis model to look for similar islands throughout the archipelago waters. Departing from this statement, the research can further be developed in the relational context of the dynamics of coastal communities, particularly at the sea tribes of the archipelago.

The concept of Metro Island in Sapeken Island shows a dependence on marine resources as an economic river and cultural consistency of coastal communities. Metro island label can be applied by performing analyzes of the typical basic of a city includes the conditions of demography, socio-economic, infrastructure, and some natural completeness requirements of life such as the

availability of fresh water at an island. This suggests that the existence of this island metro still controlled by its natural condition, while the form will automatically be created artificially in line with the dynamics of life on the island.

In the context of global and regional waters, the condition of metro island occupies state as a very risky category area of the long-term survival life (resilience). Apart from the metro island, current conditions of Sapeken Island can be described as a humanist city or town where the condition of the island is still in favor of the whole order of life that can be felt by all residents on the island.

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