# ASSESSMENT OF NATURAL RESOURCES FOR MARINE TOURISM OF SMALL ISLANDS IN THE ARU ISLANDS, MALUKU

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Abstract. Marine tourism is an important attraction of natural tourism Indonesia today. Consisting of small islands and considered as outer region, Aru Islands, as one of the districts in the Maluku province has potential for marine tourism-based coastal and small islands supported cultural potential, so it is suitable to be developed as a maritime destination. Marine tourism should be managed with conservation and ecological approach to community-based, it is in accordance with the conditions in which the tourist sites in the coastal area adjacent to the local community. The aims of this study were to identify potential marine tourism Aru Islands; to identify issues, challenges and formulate strategies and recommendations for marine tourism development that capable of accommodating the interests of society also the conservation of coastal and small islands. Resources for development of nature-based marine tourism were identified and assessed in the Aru Islands. The study results showed that as an archipelago, the Aru Islands have some 42 potential and attractiveness of a total of 88 marine tourism potential and attractions. Aru Islands also has unique and distinctive cultural and culinary for supporting the development of marine tourism. As a new destination, Aru Islands need a comprehensive and holistic development strategy. The approach includes physical and infrastructure improvement, management and institutions, marketable tourism products, and the development of a host community. These approaches to ensure tourism development in Aru Islands grow sustainably.

Keywords: development; marine tourism; coastal and small islands; community

#### 1. INTRODUCTION

It is recognized that the tourism sector's contribution to foreign exchange earnings and job creation at the macro is significant (Damanik, 2013). As an industry, tourism is considered the fastest growing sector in the world (UNWTO Tourism Highlights, 2015). The number of international tourists travel continued to show positive growth, although several times the global crisis, which involves 528 million tourists in 1995, then increased significantly in 2014 to 1138 million tourists visit. In 2013, Travel & Tourism directly generates 2.1 billion dollars in GDP. Contribution to Global GDP is more than double, compared to the automotive industry, and nearly 40% larger than the global chemical industry (WTTC, 2014). In terms of employment, the importance of Travel & Tourism is more clearly visible. With 98 million people who work directly in 2011, Travel & Tourism directly employs: six times more than the automotive manufacturing, 5 times more than the global chemical industry, 4 times more than the industry, the global mining 2 times more than global communications industry, and one-third more than the global financial services industry (WTTC, 2014).

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For Indonesia, the world tourism development have an effect, as seen from the increasing number of foreign tourists, which is as much as  $\pm$  10 million in 2015 and projected to increase to 12 million tourists in 2016 (Ministry of Tourism, 2016). The growth of foreign tourist arrivals to Indonesia in 2014 was 7.2%, higher than the world average is only 4.7% (CBS, 2014). Achievement in 2015 showed that of the 10 million foreign tourists visiting Indonesia produces 155 trillion of foreign exchange, while domestic tourist trips in the country reached 255 million with foreign exchange ± 200 Trillion. One travel resource potential, namely coastal areas and small islands. Nature and coastal culture has attractive and touristic value very suitably managed and developed for the well-being through marine tourism. Marine tourism is a form of potential tourist included in the "green industry". Sea and coast into a tourist attraction the most rapid development in recent years in the world tourism industry. Dive tourism in Indonesia to grow in the past five years. Sign in The Coral Triangle region with underwater richness of the loveliest and most complete diver makes Indonesia targets the world and domestically. Indonesia also has 55 diving destinations and more than 1,500 dive spots from Aceh to Papua, and the number is more than the neighboring countries such as Malaysia and the Philippines. The world also recognizes Indonesia has some of the best diving spots of the world, among others, Raja Ampat, Komodo Island, Derawan, Togean, Wakatobi, Gili Air and Bunaken.

Marine tourism can be a tool mover in generating creative economy in Indonesia, especially in coastal areas and small islands. Marine areas not only serves to protect ecosystems and biodiversity in it, but more than that gives economic benefits for developing countries an archipelago, such as Indonesia. But in fact, this potential has not been matched by economic results obtained. Marine tourism economic contribution to Indonesia's tourism is still relatively low. Indonesian marine tourism development is still far from the real potential in terms of its contribution to the foreign exchange and the number of tourist arrivals.

Tourism Minister Arief Yahya states marine tourism contributes only foreign exchange amounting to 10% of total foreign tourism sector, equivalent to US \$ 1 billion in 2015. This amount is far less when compared with neighboring countries such as Malaysia, which is 40% of foreign exchange with a value of US \$ 8 billion , Similarly, in terms of number of foreign tourists, maritime tourism also contributes only 10% or equal to 1 million of the total foreign tourist visits during 2014, with details, out of that number, 60% tourist beach or coastal zone; 25% of travel or traveled marine seascape with cruise, motor boat or a yacht; and 15% underwater tours such as snorkeling and diving. Marine tourism potential that Indonesia is very high, even the biggest in the world with  $\pm$  17,504 islands and a coastline of 95 181 km. If we take as a benchmark Malaysia, Indonesia has 33 major dive destination area and about 400 operators, while Malaysia only 11 destinations and approximately 100-130 operator but why greater contribution of foreign exchange. Tourism Ministry data show that the state revenue generated from marine tourism foreign tourists reached US \$ 3.09 million, or about Rp37.15 trillion. If managed optimally, marine tours Indonesia could generate revenues of US \$ 54.3 billion per year (Lasabuda, 2013).

Owned maritime destination of Indonesia is certainly a lot more than that. Indonesia has a sea area of 5.8 million km<sup>2</sup>, 17,508, and a coastline of 99 093 km<sup>2</sup>. Seabed Indonesia also has a wealth of hidden. There underwater cultural heritage in the form of a shipwreck and his

precious cargo from the fourth century until the Second World War era. In addition, Indonesia has 51 percent of coral reefs in Southeast Asia (ASEAN Cooperation, 2015).

One of the areas that have the potential for marine tourism and has not received maximal exposure is coastal and small islands in the Aru Islands. Aru has small islands, coastlines with white sand and mangroves backed by tradition unique coastal culture. Development of coastal marine tourism and small islands in the Aru Islands should approach ecotourism. Marine ecotourism approach needs to be managed with conservation / ecology-based community, it is in accordance with the conditions of tourist sites which are small islands and coastal areas are connected with the people. Ecotourism present to bring the mission of preserving the environment and empower local communities. Conservation as an effort to sustain the use of natural resources for the generations of today and especially for future generations. This study is very important in order to provide an overview of the development of marine tourism, issues, challenges and future development strategies and recommendations. The aims of this study are; (a) to identify the potential for marine tourism Aru Islands; (b) to find the problems, challenges and formulate strategies and recommendations for marine ecotourism development is able to accommodate the public interest and the interests of the conservation of coastal and small islands.

#### 2. METHODS

This research is located in the Aru Islands, Maluku with the focus of observation is marine based tourism attraction. This research uses descriptive survey and evaluation approaches. Primary data collecting held in May 2016. Secondary data were obtained from various sources report a few mounts earlier. Both types of data analyzed descriptively.

#### 3. RESULT AND DISCUSSION

Aru Islands lies between  $5^{\circ}$ -  $8^{\circ}$  south latitude and  $133^{\circ}5'$  -  $136^{\circ}5'$  east longitude. Land area in the district of Aru Islands  $\pm$  6426.77 km2. Aru Islands lie between: (a) the Arafura Sea in the south; (b) the north with the Papua Province; (c) the east with the Province of Papua and (d) the west to the Great Kei Island in Southeast Maluku District (BPS Aru Islands, 2015).

Aru Islands is one of the island group of 12 island group in Maluku province, the Aru island group. The number of islands in the district, i.e. 177 islands with details of 40 inhabited islands and 137 uninhabited, so called as the district thousand islands. However, only 17 percent of inhabited or cultivated, namely in 7 large islands: Pulau Kobroor, Wokam Island, Island Maekor, Trangan Island, Pulau Koba, Kola Island and Island Wamar. Dobo Aru Islands capital is located on the island of Wamar. (BPS Aru Islands, 2015).

The population of the Aru Islands in 2014 amounted to 89 995 people. Residents male sex amounted to 46 605 inhabitants and a population of 43 390 inhabitants are female. Comparison between the number of males and females in the Aru Islands are not much different. Number of male population 6.90 percent more than the number of females. District of Aru Islands are districts with a population the most, namely 38 827 people (43.14 percent) and the District of Sir-Sir are districts with a population of at least, that 2,835 people (3.15 percent).

## 3.1. Potential Tourism and Maritime Tourism Aru Islands

Aru Islands store various potentials and attractions both natural, cultural/historical and manmade. Data distribution of the tourism potential of the Aru Islands seen that the natural attractions, namely the number of 52 objects or 61% more dominant than cultural attractions (29 objects or 34%) and artificial tourism as much as 4 object or 5% (Final Report Masterplan of Tourism Islands Aru, 2016). The nature attractions dominated by marine based with 42 objects from a total of 88 potential tourist attraction. It shows that the theme of marine tourism is the basis of themes that can be used as a central theme the development of a tourist attraction. While the theme of cultural and historical attractions supporters made the central theme. The combination of both these themes can be used as a variation of the type of attractions that can be packaged for the development of tourism in the Aru Islands in the future. Here are the potential marine tourism spots in the Aru Islands as shows in Table 1.

Table 1. List of Marine Potential and attractions of Aru Islands

No	Tourist attraction destination	Potential and condition
1.	Marine tourism on The Island of Toba (District of North Aru)	Swimming, fishing, snorkeling, diving, recreation / camping on the island, photography, underwater research, boating/boating  Developed as a potential marine tourism resort
2.	Marine tourism on The Island of Aduar (District of North Aru East Batuley)	Boating, swimming, fishing, snorkeling, diving, recreation/camping on the island, photography
3.	Marine tourism on The Island of Wasir (District of Aru Islands)	Boating, swimming, fishing, snorkeling, diving, recreation/camping on the island, photography.  Developed as a potential marine tourism resort
4.	Old City Beach ( District of Aru Islands)	Boating, swimming, fishing, snorkeling, diving, recreation/camping on the island, photography.
5.	Koraevar Beach	Boating, swimming, snorkelling, recreation, photography
6.	Lisi Bijarum Beach, (District of Aru Islands)	Boating, swimming, snorkelling, recreation, photography
7.	Djeisala Gwamar Garia Beach (District of Aru Islands)	Boating, swimming, snorkelling, recreation, photography
8.	Papaliseran Beach (District of Aru Islands)	Boating, swimming/water play, snorkeling, relax with the family, photography. The beach is a leading and growing
9.	Marine tourism of Meirang Island (District of Aru Islands)	Boating, swimming, fishing, snorkeling, diving, recreation/camping on the island, photography.  Developed as a potential marine tourism resort

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10.	Marine tourism of Babi Island	Boating, swimming, fishing, snorkeling, diving,
		recreation/camping on the island, photography.
		Developed as a potential marine tourism resort
11.	Mangrove Ecotourism Tungu	The development of educational tourism, mangrove
		jungle track, adventure, water tours, crab hunting tours,
		fishing tours, boating traditional style
	Marine Ecotourism	Boating, swimming, fishing, snorkeling, diving,
12.		recreation/camping on the island, photography.
	Ararkula Island	Developed as a potential marine tourism resort of outer
	(District of North Aru	islands
	East Batuley)	
13.	Ecotourism Manumbai	The development of educational tourism, mangrove
	River	jungle track, adventure, water tours, crab hunting tours,
	(District of Central Aru)	fishing tours, boating traditional style
	Marine tourism of	Boating, swimming, fishing, snorkeling, recreation,
14.	Tanjung Fatujuring	photography
1	(District of Aru Islands)	photography
		Boating, swimming, fishing, snorkeling, recreation,
15.	Tanjung Maekor Beach	photography
15.	(District of Central Aru)	photography
		Boating, swimming, fishing, snorkeling, diving,
	Marine tourism of Baun	recreation/camping on the island, photography.
16.	Island	Developed as a potential marine tourism resort of outer
	Island	islands
		Boating, swimming, fishing, snorkeling, diving,
	Marine tourism of Penambulai Island	recreation/camping on the island, photography.
17.		Developed as a potential marine tourism resort of outer
	1 Chambulat Island	islands
	Marine and mangrove	Boating, swimming, fishing, snorkelling, diving,
18.	tourism of Mimien Island	recreation/camping on the island, photography
-	Contistit of William Island	The development of educational tourism, mangrove
19.	Mangrove ecotourism Lelamtuti Island	jungle track, adventure, water tours, crab hunting tours,
19.		fishing tours, boating traditional style
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20.	Mariri beach	Boating, swimming, fishing, snorkelling, recreation,
	(pearl harvest festival)	photography  Destination of this accordance in the second
21.	Leer beach	Boating, swimming, fishing, snorkelling, recreation,
		photography
22.	Lola beach	Boating, swimming, fishing, snorkelling, recreation,
		photography
23.	Mangrove ecotourism Wolfat island	The development of educational tourism, mangrove
		jungle track, adventure, water tours, crab hunting tours,
		fishing tours, boating traditional style
24.	Marine ecotourism of	Boating, swimming, fishing, snorkeling, diving,
	north Kultubai island	recreation/camping on the island, photography.
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		Developed as a potential marine tourism resort of outer
		islands
25.		Boating, swimming, fishing, snorkeling, diving,
	Marine ecotourism of	recreation/camping on the island, photography.
	south Kultubai island	Developed as a potential marine tourism resort of outer islands
26.		Boating, swimming, fishing, snorkeling, diving,
	Marine ecotourism of	recreation / camping on the island, photography.
	Karaweira island	Developed as a potential marine tourism resort of outer
		islands
27.	Marine tourism of	Boating, swimming, fishing, snorkelling, recreation,
	Tanjung Buaya	photography
28.	Hokmar beach	Boating, swimming, fishing, snorkelling, recreation,
	HOKIIIAI DEACII	photography
20	T 4 1 1.	Boating, swimming, fishing, snorkelling, recreation,
29.	Lutur beach	photography
30.	Rebi beach	Boating, swimming, fishing, snorkelling, recreation,
30.		photography
31.	Kabalukin beach	Boating, swimming, fishing, snorkelling, recreation,
31.		photography
32.	Kalar-Kalar dan Air	Boating, swimming, fishing, snorkelling, recreation,
32.	Merah beaches	photography
33.	Feruni beach	Boating, swimming, fishing, snorkelling, recreation,
33.		photography
24	Layaba beach	Boating, swimming, fishing, snorkelling, recreation,
34.		photography
35.	Fatural beach	Boating, swimming, fishing, snorkelling, recreation,
33.		photography
26	Batugoyang island	Boating, swimming, fishing, snorkelling, recreation,
36.		photography
27	Ecotourism of Penjuring island	Boating, swimming, fishing, snorkelling, recreation,
37.		photography
38.	Ecotourism of Enu island	Boating, swimming, fishing, snorkelling, recreation,
		photography
39.	Ecotourism of Karang	Boating, swimming, fishing, snorkelling, recreation,
	island	photography
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Source: Final Report Masterplan of Tourism of Aru Islands, 2016

Of the 39 potential attractiveness of maritime tourism in the Aru Islands are mostly categorized as potential to be developed. Based on the results of grouping tourist attraction in the document RIPPARDA (2016), Aru Islands are divided into three categories, namely the classification of "A" Superior, Classification "B" stand and classification "C" potential. The classification is based on the parameters of quality and uniqueness of the tourist objects, the diversity of destination, the environment, the marketing scale, capacity and other considerations. A

classification of "Excellent" as much as 2 tourist's attractions, namely the Papaliseran and Koraevar beaches. While the classification B "standout" there are seven objects, namely marine tourism Toba Island, Coastal Fortress Old City, Ujir Island, Pig Island Marine Tourism, Ecotourism Wakua, Baun Island Ecotourism and Ecotourism Enu Island. Fascination with the amount of travel at most Classification "Potential" some 31 objects.

The potential tourism attraction is still relatively embryonic no touch management, public infrastructure and tourism facilities are still limited, accessibility (transport and network connectivity) is still limited and tourists visiting the market was inadequate. For the long term potential tourist attraction will be featured and prominent if the perpetrator in the Aru Islands travel began to dig, to promote and develop their potential. In summary, classification C "Potential" is a tourist attraction that has not been growing, in terms of the quality and uniqueness of the tourist attraction, in terms of reach, infrastructure and tourism infrastructure as well as in terms of accessibility. Judging from the assessment concluded most of the tourist attraction in this group has not been developed due to lack of support infrastructure and lack of adequate management.

According to the Ministry of Tourism (2015) that there are six (6) criteria for the development of a tourism destination, namely: (a) the value of a tourist attraction (attraction) quality; (B) the readiness of tourism amenities (infrastructure/public infrastructure and tourism facilities); (C) accessibility (modes of transportation network and connectivity); (D) the readiness and support of the community and local government; (E) the governance of tourism destination; and (f) the potential development of foreign and domestic markets. Development of tourist attraction of classification A "seed" is expected to lift the prospects for the development of tourist attraction that exist in the classification of "B" or the classification of "C" which is still to be fully developed so that it becomes a tourist attraction that develops and can ultimately benefit communities and generate local revenue for the Aru Islands.

# 3.2. Problems and Challenges in the Development of marine Ecotourism

Aru Islands have a high potential for marine tourism, but in the face of development problems and challenges that must be addressed by all stakeholders, including:

- 1. Accessibility and inter-regional connectivity and access to marine tourism locations (small islands, coastal and marine) are generally low and difficult, including the lack of facilities modes of transport ships that take tourists. Aru Islands as archipelago districts with the number of 177 islands still found obstacles to the aspects of accessibility (available modes of sea and air transport) and information between subdistricts, and villages are still very limited. Development of road and bridge infrastructure is intended to increase the accessibility of transportation and reduce the level of isolation and the gap between regions. Adequate infrastructure development in turn will accelerate the economic growth of a region. The islands large and small islands with diverse characteristics of the tourism potential of the region and it has a lower access level. Air transportation facilities in the district of Aru Islands have inadequate facilities and is only served by one airline Trigana Air daily commute Ambon-Dobo (Aru).
- Infrastructure and facilities of marine tourism facilities in the region generally still
  limited. Infrastructure and public facilities are still concentrated in the city of Dobo,
  it has not spread in tourist areas / objects. The development of marine tourism

facilities in destinations/attractions to be done by local people, such as the provision of eating and drinking, rents diving equipment, based homestay accommodation (houses), rental boat tour/boat travelers introduction to diving, etc.

Marina pier construction in the Aru Islands is very strategic to do, such as regional development plans Dobo dock into the dock ships travel (cruise) from abroad. The evidence suggests that, tourists who use the average cruise tourist spends larger than most travelers. The cruise ship port is also no need to lean on, enough with the ocean depths that are eligible. Then later they can be anchored offshore using a boat to the mainland.

- 3. Support and synergies from related government institutions is still lacking. The tourism sector, especially marine tourism should be managed by a cross-sector and cross-offenders.
- 4. Quality of Human Resources both local government, operators/travel offender and society actors need to be improved. Every stakeholder must play the role that the development of marine tourism appears to be felt by the tourism stakeholders, tourists, especially local communities. The local government acts as a facilitator and regulator, as a private tourism actors/operators, and society as a subject with the concept of the people, by the people and for the people. Of course, also takes the roles of universities, the press / media, NGOs and community leaders/customs and religion.
- 5. Promotion and marketing inadequate. Promotional support through the conventional media to be reduced in number while the electronic media / internet promoted more effectively and improved the amount and quality.
- 6. The political-economic policies (such as fiscal, monetary and investment climate less conducive. The central government plans to reopen the Darwin-Ambon flight will encourage the growth of tourists in Maluku, especially Aru Islands. Including the role of ships participating PELNI offering marine travel packages, including Aru Islands region. Visa-free policy to Indonesia for the 84 countries that have been issued by President Joko Widodo through Presidential Regulation No. 21 Year 2016 on Visa Free visit on March 2, 2016 as a positive policy to support the development of tourism, especially marine.
- 7. Lack of coordination and cooperation across sectors for the development of marine tourism. The key is coordination and cooperation across sectors and actors. The arrival of cruise ships in the region, particularly the Aru Islands requires coordination and cooperation among actors for travelers in need of services and attractions that can be enjoyed. Coastal communities and islands to be prepared abilities (build attractions and facilities) in welcoming guests and serving tourists.
- 8. Cost of marine tourism infrastructure development is much higher. The concept of community-based ecotourism as an answer to the high cost of infrastructure development in coastal areas and small islands. Again, local communities must be empowered and enhanced. Meaning of community-based marine ecotourism in this paper is a tourist activity in the area of coastal and marine sub marine on the basis of the attractions, facilities and modes of transportation access provided by local communities, so that people may earn revenues and increased welfare. With the

growing prosperity of this marine ecotourism businesses, local communities will feel responsible for the preservation of coastal and small islands as it has become the source of their life.

## 3.3. Marine Ecotourism Development Strategy and Recommendations

Challenges and problems as has been mentioned above can be overcome with strategies and recommendations as a reference for the development program of marine tourism stakeholders in the Aru Islands, namely:

- 1. Imaging Aru Islands as a destination for eco-tourism. Imaging needs to be done in an integrated manner, one of them with creating the logo and mascot of the Aru Islands maritime destination. Logo and mascot used as a tool to communicate the image of the destination or theme to the public. Another way of imaging is to create positive information about conservation efforts and the development of ecotourism in the area of electronic media and print media are read by the intended market segment.
- 2. Regional development is based on Zoning. Establishment of zoning is needed both to protect coastal areas and small islands, and also to provide a diversity of experience for tourists. Based on the level of intervention, then the proposed zones are: (1) Intensive Zone, This zone is designed to receive more tourists by providing space for activities and include adequate tourist facilities, such as hotels, resorts. Travelers can perform maritime and tourism activities including the construction of an artificial attraction; (2) Zone semi-intensive, Zones are designed to accept a medium level visits with the purpose of tourism activities that are more specific, and provide sufficient space for the activities and the convenience of visitors, as well as supporting facilities include tourist activities are limited; (3) Extensive Zone, Zones are designed to accept tourists on a limited scale and controlled with consideration of environmental vulnerability level has been increasingly rising so need a very responsible management. In this region the establishment and setting buildings and tourist facilities requires strict rules and are very limited.
- 3. Develop marine tourism products that contribute to the conservation of natural and cultural environment. Ecotourism development should contribute to the preservation of natural resources and culture into one that can attract tourists to come. The paradigm change by foreign tourists vacationing indicate that they want a quality vacation experience. The ride quality is largely determined by tourism products and services offered. Results of the annual survey by ABTA (Association of British Travel Agents) in 2013, showed that 83% tourists surveyed wanted his vacation does not damage the environment; 71% want to vacation leave benefits for local communities in the destinations visited; 77% want the holiday to get the experience of enjoying food and local culture; 54% of travelers want to know more about social and environmental issues in destinations before they decide to buy a travel package. Although not reflect all international travelers, but this ABTA survey results showed that most tourists during vacation want a positive contribution to the environment and surrounding communities.

This is certainly an opportunity to perpetrators of marine tourism in the Aru Islands in order to always offer activities in accordance with their needs, while enhancing the quality of the environment and raising awareness of coastal communities. The

programs can be proposed through this strategy, for example to develop ecological tourism packages based maritime culture and conservation, developing local souvenirs and unique culinary Aru development of cultural festivals, ceremonies between rice, etc.

4. The need for management of maritime destination. Destinations is one important element in tourism, because it became a place for most of the facilities and tourist activity to interact (Damanik, 2013). As one of the essential elements of a destination (eco) marine tourism requires proper management or management follow standard processes and procedures strictly. Briefly eco-tourism destination management as a process of planning, structuring, maintenance and utilization of tourism resources contained in an integrated tourism destination in order to provide optimal value for stakeholders while ensuring sustainability (Damanik, & Teguh, 2012). By applying a good destination management will provide benefits to stakeholders (eg local communities, ecotourism and local government actors) as well as the destination itself overall.

Develop tourism facilities that impact on the environment, sparing use of natural resources, using appropriate technology. This strategy is one of the efforts that the management of maritime destination in the Aru Islands adapting to climate change issues which in the future will be increasingly strong. Environmental issues, energy saving has also affected travelers in choosing the destination he wanted to visit. Destinations that observe and manage tourism facilities with environmentally friendly technologies, will receive the added value and impact on increasing the number of visits. This strategy also aims to achieve the vision of the Aru Islands tourism who wants to realize himself as a maritime destination. Another development in capturing the opportunities of the development of marine tourism in the Aru Islands is the provision of transport wooden boat leased and managed by local communities, to surround the small islands. It is certainly provide new business opportunities and also involves a lot of people to benefit from "baking" the development of marine tourism. If the number of visits has increased sharply, then the manager can determine the length of time of the visit, so that visitors can rotate faster and thereby receiving benefits to be optimal, while the impact on the environment can still be maintained. Correspondingly, the local government must issue its policy on development of tourism facilities of low impact on the environment, saving natural resources and the use of appropriate technology.

5. Improving hygiene and facilitation tourist area of waste management. This strategy specialized waste management, given the garbage is always an issue in the area of tourism, especially in the area of marine tourism. Awareness of the parties is less strong in waste management, especially in coastal areas and small islands. Solid waste processing is identical with the work that is low, so few people want to be involved in waste processing. It appears in the tourist attraction of coastal marine tourism and small islands, plastic trash is piling up and not well managed and not a concern of many people. Governments should establish a system of governance parallel garbage, including providing appropriate technologies for managing waste from scale to scale village district. Processing waste must be accompanied by awareness-raising programs and training processing waste to be reused.

6. Develop a management system based tourist attraction community groups. The marine based attraction in the Aru Islands scattered in coastal areas and small islands, as well as coral reef diving into a tourist attraction. If the attraction prepared management and innovation management options are developed and followed the attraction of community development geared to participate in the management of the attraction, it is expected that this concept will provide business opportunities for local coastal and island communities that exist around the attraction. It will also raise public awareness to conserve natural resources and biodiversity and the maritime culture into tourism assets.

Development management mechanism should also pay attention to the attractiveness of the local characteristics of the society, so that a pattern approach to combine with customs that exist in the community, so it can absorb. Pattern training for management is also done through a pattern of intense mentoring, then do the monitoring for a period of one year. Some things that can be monitored is, recording, administration, obstacles faced as a material for improving the quality and potential for future development.

- 7. Travel awareness campaigns and stepping to the perpetrators of travel. Sapta pesona is a term for seven elements of the development and management of tourist attraction in Indonesia. Sapta Pesona consists of; (1) Safe; (2) Conduct; (3) Net; (4) Cool; (5) It is beautiful; (6) Friendly; and (7) of Remembrance. Important campaign conducted at the level of the community, tourists, managers / entrepreneurs. The recommendations are (a) the reforestation program in the coastal strip and small islands, such as the Turkish Papaliseran, Koraevar, Toba Island, Ujir Island, Pig Island, Island Meirang and others; (b) the movement of beach and island clean of trash; (c) facilitating the trash and boards instructions to preserve the environment; (d) establish communal wastewater treatment facilities. Increase the capacity of ecotourism businesses Business / marine tourism operators as the central character also needs to be upgraded amenities, especially in terms of improving the general standard of service. Business actors including guides, managers of accommodation facilities (hotels, resorts, home stays, sightseeing boats), manager of supporting facilities, transport operators, and so on. This increase is not absolutely the responsibility of the local government Aru Islands. Should be encouraged to cooperate with the various agencies, technical institutions, and NGOs, to the success of this strategy. Products community-based marine tourism businesses need to be developed to improve the overall product quality. This can be done by: (a) improving the competitiveness of business tourism products based on creative/innovative; and (b) the creation of conducive business climate.
- 8. Increase the capacity of ecotourism businesses. Business/marine tourism operators as the central character also needs to be upgraded amenities, especially in terms of improving the general standard of service. Business actors including guides, managers of accommodation facilities (hotels, resorts, home stays, sightseeing boats), manager of supporting facilities, transport operators, and so on. This increase is not absolutely the responsibility of the local government Aru Islands. Should be encouraged to cooperate with the various agencies, technical institutions, and NGOs, to the success of this strategy. Products community-based marine tourism businesses

need to be developed to improve the overall product quality. This can be done by: (a) improving the competitiveness of business tourism products based on creative / innovative; and (b) the creation of conducive business climate.

- 9. Capacity building and partnership through the development of local entrepreneurs in the marine tourism sector. As has been described above that the involvement of the community in the tourism sector in the Aru Islands still limited to the management of small-scale accommodation, homestay, simple food stalls, boat operators, while other opportunities untapped. Supporting efforts such as maritime travel tour business with competitive packages, guides, porters, crafts, the owner of the ship / boat, if the cottage industry of food, raw material suppliers locally and so had an opportunity very promising. Therefore, strategies offered is to create self-employment in the marine tourism sector, to identify the "champion" at the local level, fostering in particular to make them local businesses to manage tour or labeled with a community tour organizer (CTO) based in the Dobo city.
- 10. Improving the quality of human resources at the level of marine tourism actors. The human resources to manage maritime destination really should be adequate, because the marine tourism businesses have specialized expertise in the operation. The facts show that the resorts marine tourism in Indonesia are mostly owned and managed by foreign nationals. These conditions inevitably local operators must be prepared before dabbling in marine tourism business. The point many economic opportunities that can be gained from marine tourism business.

#### 4. CONCLUSION

Aru Islands have the potential of coastal and small islands, so it should be developed as a maritime destination in the province of Maluku. The concept being developed is the development of marine tourism and resort on the coast/beaches and small islands with limited facilities to do in zones of intensive, semi-intensive and extensive. The development of marine tourism is still experiencing challenges and constraints, associated with accessibility and connectivity between islands, human resources issues perpetrator/marine tourism operators and regulation, public facilities and infrastructure and tourism facilities are still limited, and the promotion/marketing. In the concept of marine tourism, challenges and problems must be solved, such as the question of access is an opportunity for local communities to prepare the means and modes of sea transport and small islands. The concept of marine ecotourism developed are putting local people as entrepreneurs at a tourist attraction, not a spectator, can at least sell their local products, such as handicrafts, culinary, rental diving equipment, tour operator, owner of the ship/boat tour, homestay/lodging, guide or porter. The bottom line with business in the marine tourism sector can increase their income. With the growing prosperity of marine ecotourism efforts, it is hoped local communities will feel responsible for the preservation of coastal and small islands for tourism businesses have been the source of their life.

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