

# STUDIES OF COMMUNITY PARTICIPATION IN ECOTOURISM OF SMALL ISLAND IN INDONESIA (Pramuka Island in Jakarta City)

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## ABSTRACT

*Pramuka Island has an area of 27 hectares which is designated as a residential area and the location of the Thousand Islands Government Center, a potential tourist destination with the potential for breeding and releasing turtles into the high seas, mangrove tree nurseries, and mangrove forests besides serving as tourist destinations as a stopover for visiting tourists. want to visit other islands in the vicinity. The research problem is that there is still no role for the community to participate in integrated management of tourism on Pramuka Island, by providing services to visiting tourists and maintaining the ecosystem. The purpose of this study was to determine the role of the people on Pramuka Island in maintaining the sustainability of tourist destinations due to climate change. The research method used is a qualitative approach with data collection using purposive sampling method with data sampling with observation techniques and in-depth interviews with informants who understand the environmental conditions and the objectives of tourists visiting Pramuka Island, with data analysis using descriptive methods. This research found that there is community participation in maintaining the ecosystem and serving tourists who are expected to be able to maintain the existence of Pramuka Island as a place to live and as a tourist destination.*

**Keywords:** Ecotourism, Community Participation, National Parks, Small Islands, Tourists, Climate Change

## INTRODUCTION

The land area for the Thousand Islands Scout Island is based on Landsat 8 imagery using a threshold slicing value of 0.83 is 27.27Ha. In this study, it is necessary to validate using field data information and tide information related to the determination of the threshold slicing value because the determination of this value is the key to the accuracy of the results of this study (Setiawan, Anggraini, & Manoppo, 2016). Based on

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data published by the DKI Jakarta government, the area of Pramuka Island is 16 Ha (<https://jakarta.go.id/artikel/konten/3917/pulau-pramuka>).

Tourism is an industry that contributes to state and regional revenues. One form of tourism that tourists are interested in is ecotourism, which is the tourism industry that sells natural potential. Ecotourism can be said to be a paradox because in addition to being a source of income for the community it is also considered an activity that can damage the natural environment, so ecotourism must be seen as a tourism activity that is responsible for environmental sustainability and community welfare. local community.

Pramuka Island is part of the Thousand Islands Administrative Region, which is located north of Jakarta City, with a distance of 38.30 km. Based on the Decree of the Director-General of Forest Protection and Nature Conservation of the Ministry of Forestry Number SK.05 / IV -KK / 2004 dated 27 January 2004 concerning Zoning, Pramuka Island is part of the Thousand Islands National Park. and is included in the Settlement Zone which is used as the center of government as well as settlement. The Seribu Islands Administrative Regency Government is officially separate from North Jakarta City, with the Central Government located on Pramuka Island, (Government Regulation No. 55 of 2001) concerning the Establishment of the Thousand Islands Administrative District. Pramuka Island apart from being a Government Center and the residence is also a tourist destination with tourism potentials, such as exploring the Mangrove Forest, as well as a mangrove tree nursery and planting involving tourists, snorkeling and diving, coral reef transplantation, Hawksbill turtle nurseries. Another attraction of Pramuka Island, which is ecotourism, is the release of Hawksbill turtles.

A balanced ecosystem can maintain and control the hydrological cycle so that runoff can be reduced and increase infiltration capacity so that underground water can be protected, and provide comfort for human life and other living creatures as part of the ecosystem. Four ecosystem services according to Sarukhan, J., White. A, ed. (2005), (1) Service Providers, namely tangible goods provided by ecosystems can directly become fresh water for consumption or production, (2) Regulatory Services, namely the benefits of ecosystems in regulating natural processes, (3) Supporting Services, namely, supporting the provision of ecosystem services others, and (4) Socio-Cultural Services, namely, Experience, Mangrove Forests, Marine Parks.

Regulation of the Minister of Home Affairs Number 33 of 2009 concerning Guidelines for Economic Development in Regions "Ecotourism emphasizes the use of natural attractions and resources while maintaining its sustainability and improving the welfare of the surrounding community, providing learning for visitors because ecotourism is sustainable tourism" with the definitions provided by several ecotourism experts.

Internationally, the tourism economic sector is dominated by small businesses that provide goods and services to visiting tourist customers. Definition of CBT Community Based Tourism (CBT) is a tourism activity,

owned and operated by the community, and managed or coordinated at the community level that contributes to the welfare of the community through supporting sustainable livelihoods and protecting the values of socio-cultural and natural and cultural traditions. Heritage resources (ASEAN Community Based Tourism Standards, 2016). Community involvement is undoubtedly important in this sector. For Community Based Tourism (CBT) to take place, it requires support from all stakeholders, especially the surrounding community, CBT in a small island country has succeeded in advancing the country's economy through the community-based tourism industry. Several non-governmental organizations also support the development of CBT in the country. What about Pramuka Island which is a small island that is also an island that is a tourist destination for enjoying ecotourism. This study aims to determine the role of the Pramuka Island community in serving tourists.

### **LITERATURE REVIEW**

Ecotourism is a combination of tourism for a pleasant resting activity, as well as tourism for activities to protect natural resources, even as a research field. If the object of ecotourism is the life of indigenous people, then these residents must be prosperous with the existence of tourism activities.

There does seem to be some merit in linking ecotourism to nature tourism, given the tremendous variety of nature-related tourism interests. However, there is also ambiguity in separating nature tourism from other forms of tourism, all of which rely upon the use of natural resources. Even mass, resort-based tourism relies upon undeveloped resources (i.e. beaches and the ocean) as a central component of the product and experience (Fennell, 2005).

The travel industry typically classifies ecotourism with nature or adventure tourism; it is frequently referred to as “responsible,” “sustainable,” “green,” or “low- impact” tourism and, by 2000, new terms such as “pro-poor tourism” and “geotourism” were complicating the picture and confusing the public. The confusion over the definition of ecotourism is partly due to its historical roots, which, broadly stated, can be traced to four sources: (1) scientific, conservation, and nongovernmental organizations (NGOs); (2) multilateral aid institutions; (3) developing countries; and (4) the travel industry and traveling public. Almost simultaneously but for different reasons, the principles and practices of ecotourism began taking shape within these four areas, and by the early 1990s, the concept had coalesced into a hot new genre of environmentally and socially responsible travel (Martha, 2008).

According to (Orams, 1999) cited by Zeppel (2011), there are four main strategies used by park institutions to control and manage marine tourism including 1) regulatory, physical (i.e., infrastructure), 2) education, and 3) economic strategy, 4 ) Regulatory strategies include park regulations and zoning plans to limit visitor numbers, ban various activities, segregate conflicting activities (temporal and spatial) and allow area closure; skill

level (i.e., diver or tour operator certification) is also required (Zappel, 2011 p.43)).

According to Rietbergen, et al., (2008), citation by Caloda et al (2014). The geographical framework of small islands, as well as their morphological and ecological characteristics, leads to higher vulnerability to certain threats and phenomena such as variability and climate change, the proliferation of invasive exotic species, natural disasters, and over-exploitation of natural resources.

Climate change is a complex issue that has been discussed so far. This involves multidimensionality in human life, includes science, economy, society. Climate change is a global problem but it can be felt on a local scale, over the coming decades and centuries. The cause of climate change is global warming. Global warming and climate change will continue to affect future generations. The human influence on the climate system is evident, as evidenced by the increasing concentration of greenhouse gases in the atmosphere. Human influence has been detected in warming the atmosphere and oceans, in changes in the global water cycle, in reducing snow and ice, in global sea-level rise (IPCC Fifth Assessment Report (AR5), 2014). Climate Change impacts small islands, "including variations in air and sea temperature; ocean chemistry; rainfall, wind strength and direction, tropical cyclones, drought, and storm surges. All have different impacts, depending on the magnitude, frequency. , the temporal and spatial incidence rates, as well as the biophysical, social, economic and political properties of islands (The IPCC's Fifth Assessment Report (AR5), 2014) ", sea-level rise poses an increasing threat to increasing low coastal areas.

The implications of increased storminess for coastal tourism are many and serious. Storms are not just an inconvenience; they can be life-threatening. Storms disrupt transport communications, cause widespread coastal flooding and coastal erosion, and cause considerable structural damage. It is a well-known meteorological phenomenon that coastal cyclones and storms are worst where they cross the coast and that they tend to die out once they cross a landmass. (Gissling, & Hall, 2006). Mitigation is a human intervention to reduce greenhouse gas sources or increase sinks (processes, activities, or mechanisms that emit greenhouse gases from the atmosphere), whereas adaptation is, The actual and expected climate change and adjustment process (Human systems, undermine threats or exploit profitable opportunities (The IPCC's Fifth Assessment Report offers the following key messages for Small Island Developing States, 2014).

In natural systems, human intervention can facilitate adaptation to the climate and its intended impacts. Social protection: In the context of development and climate assistance policies, social protection usually represents public and private initiatives that provide financial assistance or consumption to the poor, protect people who are vulnerable to livelihood risks, and improve the social status and rights of marginalized people, with the aim of overall to reduce the economic and social vulnerability of the poor, vulnerable and marginalized. "Traditional communities, including working-class communities, are presented and valued as close ties,

characterized by the values of togetherness and togetherness, based on face-to-face communication (Mayo, 2000)". Ecotourism on Pramuka Island must be able to make all the citizens of the Thousand Islands in general and Pramuka Island in particular. Community residents' daily life and work, economic activities, traditional customs, and so on are close related to the ecological environment around as well as animal and plant resources in the natural reserve.

For a long time, the residents in the ecotourism destination have lived on nature resources consumption; the abundant nature resources in ecotourism area have supplied them material basis for survival. These not only have caused environmental destruction and pollution, but also have been unfavourable to biodiversity protection. Therefore, the government should actively spread and apply new energies of environmental protection type, such as biogas, solar energy, power, briquette, and so on, build the wastewater treatment plant for communities; to form the life style of environmental protection type and realize the virtuous circle of environmental protection and community development. The community residents, especially those who long engage themselves in tourism activities, have a more intuitional understanding on the needs of tourists, can give some advice to the planners on the development of the ecotourism project and the distribution of facilities; meanwhile, they can offer useful reference to the environmental protection in ecotourism development process according to their long-history fit in the environment and, what's more, if they have participated and accepted the ecotourism project, they will be friendly and provide high quality service, which will improve the tourists' satisfaction to the ecotourism project, so as to achieve a better travel effect. Therefore, the management departments of tourism development should establish full-time branches of community management, and consider fully the interests of inhabitants, and guarantee the participation channel unimpeded, and form bulletin system and consultation system for significant happenings during the development and planning of tourism, and form veto system for improper important decisions in some tourism areas, and at last make sure that every tourism decision is discussed and studied by all parties(Wang & Min, 201).

The life of coastal communities in the life of fishermen has a tradition of cooperation, especially in preparing fishing gear, although then over time this tradition has shifted towards friendship between entrepreneurs and workers, social activities that still involve community life, and needs. To be linked to their well-being, especially participating in brainstorming events and development requires community participation. In coastal communities, according to Sain and Kenecht (1998), a coastal management system can be considered as a system of relationships between (1) people who live, utilize, or care for (in their beliefs or behaviour) and the coastal environment, (2) policymakers who make decisions and their actions influence the behaviour of coastal communities, and (3) members of the scientific community of natural scientists who study the coastal environment and social scientists who study human behaviour in coastal areas. In rural communities, according to Koencaraningrat. (1981), found two different

types of principles, namely (1) Participation in joint activities in special development projects, namely community participation that is forced or persuaded by people's representatives or village officials, to participate and contribute energy or labor for physical projects, (2) Participation as an individual outside of joint development activities, in participation, there are no joint physical activity development projects that require community participation. Community participation, among others, is in the form of health education, family planning acceptors, and savings in banks.

In coastal areas, mangrove forests have various benefits, including ecological functions with very high ecological value. They protect and stabilize the coastal zone, fertilize coastal waters with nutrients, produce commercial forest products, support coastal fisheries and provide a surprising genetic reservoir that is a source of several bioactive substances and extracts of high medicinal value. Mangroves are among the most productive sites in the world, producing organic carbon over ecosystem requirements and thus contributing significantly to the global carbon cycle. Mangroves are considered to have the ability to control coastal water quality. Mangroves also function as a flood barrier and binder for sediment particles (<http://www.fao.org/gpa/sediments/habitat.htm>), and according Mitra (2013), This feature of mangrove is very important in context to climate-change-induced sea-level rise.

What follows is a sample of the ecosystem goods and services that are rendered by nature, a sample of the threats to these values, and an attempt at economic valuation of each. Open Oceans, Coastal Marine Environments, Tropical Forests, Temperate/Boreal Forests, Open Oceans, Coastal Marine Environments, Tropical Forests, Temperate/Boreal Forests, Grasslands/Rangelands, Wetlands/Flood plains, Lakes and Rivers, Deserts and Tundra Voeks, and Rahmatian, 2012).

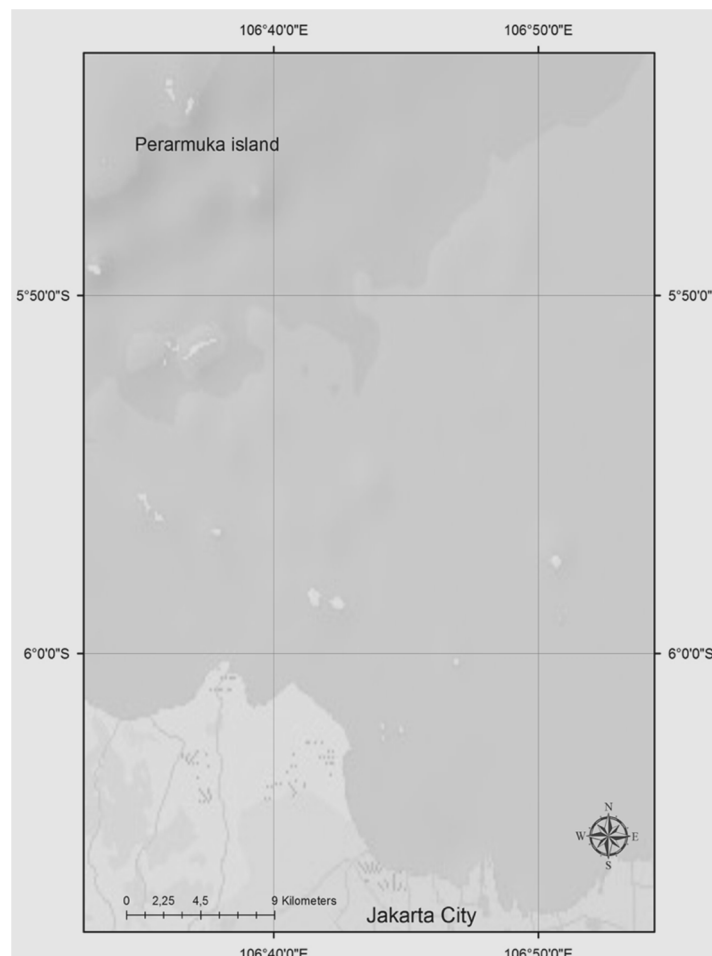
Growth in island visits will create increased demand for energy, communications and recreation, and hospitality facilities, and a combination of measures that benefit ecosystem services and urgent local needs will require governance of ecosystem services. "Measures that will significantly and concurrently increase the value of the ecosystem for competing (mutually beneficial) stakeholders are preferable because they are likely to enjoy broader stakeholder support. (Polman, Reinhard, Bets., & Kuhlman, 2016)". Tourist visits to Peramuka Island increase people's income because tourists need lodging, meals, and tour guides, transportation. This requires increased competence and allows for a change in mindset. According to Castro, and Ferreira (2019), "Competence is most related to entrepreneurship-opportunity recognition, business and strategic planning, and goal setting. For most of them, this business was their first experience in entrepreneurship and they created a business, although some of it was inherited from their parents or family. Opportunity, but also a necessity, is the reason for starting new businesses especially with their savings combined with loans and public funding"

Research problems. The existence of tourists on Pramuka Island must be able to prosper the people of Pramuka Island and bring in foreign exchange for the local government, this is possible if the community can

participate in ecotourism activities, managed by the community in an integrated manner, ecotourism on Pramuka Island can be sustainable. and the welfare of the Pramuka Island community. The purpose of this study was to determine community participation in ecotourism and protect the Pramuka Island Ecosystem.

### RESEARCH METHODOLOGY

This study used a qualitative approach with descriptive analysis, data sampling was carried out by field observations of materials or objects related to community participation in ecotourism management on Pramuka Island.(Figure1).



**Figure 1:** Location Research.

*Sources: Argis Basic Map.*

This study used a qualitative approach with descriptive analysis, data sampling was carried out by field observations of materials or objects related to community participation in ecotourism management and ecosystem preservation on Pramuka Island.

The sample data collection method for analyzing community participation used in-depth interviews with unstructured interview techniques with informants who were directly involved in ecotourism and the rehabilitation of the Pramuka Island ecosystem and Pramuka Island community leaders. The interview results from the informants used were analyzed

The analytical instrument includes Community Participation on Pramuka Island as the main theme of research, in the form of activities related to ecosystem conservation involving tourist visits, namely Mangrove Tree Nursery and Planting, Coral Reef Transplantation, and witnessing the breeding and release of turtles into the high seas. The role of Pramuka Island residents who intersect with tourists is as a companion to mangrove planting, coral reef transparency, and release of turtle hatchlings that are quite ready to be released into the open sea, while the participation of residents who are not directly related to conservation is to become tour guides when tourists do snorkeling activities and diving. and others. The tourism activity is touring the mangrove forest. The role of the community related to the economy is selling food, lodging, and providing transportation services for inter-island visits in the Thousand Islands. The analysis was carried out by making a narrative from the results of in-depth interviews that were not structured and observed.

## **RESULT AND DISCUSSION**

Climate change is a big issue in the world that threatens life in the world, especially in coastal areas, especially on small islands. As a result of climate change, the most threatened areas are coastal areas, due to rising sea levels. From the results of interviews with Pramuka Island residents, they do not know the threats and consequences of climate change, they only understand that the sea waves are getting higher, and destroying Pramuka Island's dock.

According to Siegrist (2008) suggests that public perceptions about climate change as a risk tend to be hampered by challenges (Becken, Hay, & Espiner, 2011), as follows:

1. Difficulty in thinking probabilistically;
2. Difficulties in applying a system-based approach;
3. Lack of cultural discourse on which debate can be placed; and
4. Frustration, rejection, and apathy as a result of the perceived lack of scientific consensus.





A: Hawksbill Release Area



B: Travel to explore the Mangrove Forest with a Canoe



C: Hawksbill Breeding



D: Seawater play (Swimming)

**Figure 2:** Tourism Object.

The government through the Thousand Islands National Park Office has guided Pramuka Island residents to be actively involved in ecotourism activities, but these activities have not yielded the expected results, such as training on coral transplantation, snorkeling, and diving. However, some residents who have attended the training have been involved in ecotourism activities as companion tourists, for diving and snorkeling activities.

Although often equated with nature tourism, ecotourism, properly understood, goes further, striving to respect and benefit protected areas as well as the people living around or on these lands. The history of the golden toad and that of ecotourism are intertwined, and some speculate that an ecotourist (or perhaps a scientist) may have carried into Monteverde's rain forest an alien organism that caused a plague among the reserve's toad population. If true, it is ironic, since Monteverde scientists and residents have consciously used conservation grants and ecotourism profits to protect the habitat of the golden toad and other exotic, endangered species, including the Resplendent Quetzal, one of the world's most majestic birds (Honey, Martha, 2008).

9 characteristics of the Ecotourism destination, which include, as follows: (1) Natural features preserved in protected landscapes, (2) Low-density development, where natural areas are abundant and built landscapes do not dominate, (3) Evidence that tourism is not damaging natural systems such as waterways, coastal areas, wetlands, and wildlife areas, (4) Small

business communities that develop, including food stalls and other types of handicraft companies owned by residents, (5) Many special outdoor recreation zones designed to protect vulnerable resources, including bicycle lanes, footpaths or pedestrian paths that are shared by locals and visitors, (6) Lodges, hotels, restaurants, and businesses that develop locally, which provide genuine hospitality with friendly and motivated staff, (7) Various local festivals and events that show a continuing sense of pride in the natural environment and cultural heritage aya local people, (8) Clean and basic public facilities to be shared by tourists and residents, such as public bathrooms and toilets, (9) Friendly interactions between locals and visitors in natural meeting places, such as shops or benches local seaside (Wood, 2002).

Pramuka Island is a hawksbill turtle breeding ground and mangrove tree nursery. Hawksbill turtles that are big enough will be released into the open sea around Pramuka Island, and mangrove trees are big enough to be planted around Pramuka Island. The release and planting involve environmental communities visiting Pramuka Island.

The main tourism potential offered on Pramuka Island, according to Mr. Agus from the Ministry of Environment and Forestry (KLHK), is snorkeling and diving. Furthermore, the Mangrove Forest that surrounds the beach and the bridge surrounded by mangrove forests is called the Mangrove Path (Labirin Dock). Each tourist attraction has its own charm and tourists can enter to enjoy the view from the bridge which is shaped like a pier surrounded by mangrove plants for Rp. 5,000 for Monday to Friday and Rp. 7,500 on Saturdays and Sundays and Public Holidays.

Turtle breeding is also one of the attractions of domestic and foreign tourists, the Hawksbill Turtle is the prima donna of turtle breeding on Pramuka Island. Tourists can see how the life cycle of a turtle even touches the turtle directly. Besides, tourists can witness the release of hatchlings (baby turtles) who are old enough and physically ready to live in the wild (**Figure 2**). Turtle Breeding. When interviewed about the involvement of tourists in protecting the Pramuka Island environment, Mr. Agus was worried because many tourists did not have awareness in maintaining the tourist area of the Thousand Islands National Park, for example in maintaining the cleanliness of Pramuka Island, the lack of attention of local and foreign tourists was still unfortunate by the government and residents. Pramuka Island. The awareness of foreign tourists in maintaining order is also still in doubt because the majority of foreign tourists are often reluctant to pay the entrance ticket for the Mangrove Path tour available in the Thousand Islands National Park. According to the convenience of tourists and residents, the government is carrying out infrastructure development, repairing the pier, on the East Side of Pramuka Island, a pier is being built for fishermen. Public facilities that have been available such as the Regional General Hospital, Mosque, and ring road. The wastewater and clean water treatment plants are built, but they have not yet reached all houses so that houses that have not been serviced have to make on their own. Electricity needs are supplied from Jakarta by using submarine cables, so that residents can enjoy electricity 24

hr a day, and have reached every house on Pramuka Island, while for lodging, hotels and homes for tourists to stay are available.(Figure 3).



A: Pondok Karang and Mangrove  
community involvement forum for  
conservation



B: Discussions with Mr. May about the  
process of restoring Coral Reefs

**Figure 3:** Coral Conservation Activities involving Community.

The participation of the Pramuka Island community is very strong, especially concerning protecting their environment, such as planting mangroves and transplanting coral reefs. The livelihoods of Pramuka Island residents are generally related to tourism.

“Local people must understand and receive benefits, empowerment, and ownership from tourism. We [the government] want to use tourism to fight poverty before poverty kills tourism (Honey, 2008)”.

In the development of ecotourism in Pramuka island, the community is actively involved, among others as a tour guide or companion when tourists want to do snorkeling or diving around Pramuka Island, another participation of Pramuka Island communities is to open homestays, lodging for tourists who use their homes. Other activities are a form of business conducted by mothers to prepare meals for hotel guests who are doing events on Pramuka Island.

Another form of community participation on Pramuka Island is Mangrove Planting and Coral Reef Transplantation. One of the residents who is actively participated in coral reef planting and conservation was Mr. Mahmudin who likes to be called Mr. May, according to him, his involvement in the transplantation of coral reefs has been carried out since 2003, as a responsibility to the past as a destroyer of Coral Reefs. Because of his expertise, he is often invited to Raja Ampat to carry out coral reef restoration.

Mr. May, with her diligence, has managed to design a shelf for coral reef nurseries. Material made in the form of PVC pipes, with a diameter of +/- 3/4 Inch. Until now as many as 600,000 shelves have been made by Mr. May and placed in the waters around Pramuka Island by involving various elements of the community including tourists.

Coral Reef Transplants are carried out at depths from 2 meters to 30 meters. Coral Reef growth is very slow, in a year, growth is only 1 cm. This caused Mr. May to change his way of life, which was originally a destroyer turned into a caretaker, and from the economic side of the family Mr. May, the better it is proven to have a house and a workshop for Coral Reef Shelves.

From a rural development perspective, tourism in rural areas can play an important role in ensuring the revitalization of these areas, the dominance of micro and small enterprises highlights the importance of the owner in the process of star-up and growth of the business, and so it is important to understand the entrepreneurial competencies among the owners of rural tourism companies. Which characteristics an entrepreneur of a small business should have is not a simple task. (Castro & Ferreira, 2019).

There are several residents and migrants from the cities of Jakarta, Tangerang, and Banten, opening businesses in restaurants, hotels, and homestays. Because more and more tourists visit. The way they do business is less professional both in terms of business places to eat, hotels, and homestays because their business background is mostly fishermen. As at the beginning of a business, they use their savings.

Based on information from informants related to research, the government's concern is to provide training on diving and services for tourists who like to dive. The government has not yet conducted training in terms of services for tourists as well as hotels and healthy homestays and capital to improve services.

## **CONCLUSION**

The role of the Pramuka Island community in Ecotourism is to participate in ecosystem conservation such as transplanting coral reefs and mangrove nurseries. While activities that are directly related to tourists as tour guides, accompanying tourists in activities of releasing hatchlings, planting mangroves and transplanting coral reefs, as well as snorkeling and diving, other activities include opening a place to stay as a homestay, opening a catering business, or selling food and necessities daily.

Ecotourism on Pramuka Island is a very interesting activity because it includes visits to enjoy the natural scenery, such as swimming, boating in the middle of the Mangrove Forest, taking a walk in the middle of the Mangrove Forest using the Labyrinth Pier, enjoying the underwater scenery by snorkeling or diving. Meanwhile, educational tours are in the form of Mangrove Tree Planting, Coral Reef Transplantation, and Hawksbill Turtle Release to the high seas, seeing turtle breeding, and mangrove nurseries.

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and R.K.; project administration, R.K.; All authors have read and agree to the published version of the manuscript.

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