

## Discerning Coastal Ecotourism in Bira Island

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**Abstract** The Ministry of Tourism has created a 10-priority destination program in Indonesia. Pulau Seribu is one of the 10 destinations. Meanwhile, Bira Island is located in the Thousand Islands. To improve the performance of the Island, it is also necessary to increase the island of Bira. This mixed mode research, conducted for a year on the island of Bira to respond to the plans of the Ministry of Tourism. This study aims to discern Coastal Ecotourism in Bira Island, Indonesia. The results of data collection and tabulation show the existence of gap between the performances of the island at this time and expected. Ecotourism concept enhances CE performance on the island. In addition, the concept also creates jobs of women and anglers living along the coastline. Besides, environmental conservation efforts create marine ecotourism. Furthermore, their efforts also increase economic contribution to them and local governments. The economic improvement is accompanied by improved coastal environmental performance and improved performance of culinary and handicraft tourism.

**Keywords** Coastal-ecotourism; Culinary and Handicraft tourism; Marine ecotourism; Economics contribution

## Background

The Minister of Tourism states that tourism industry enhanced GDP (Gross Domestic Product) and foreign exchange. It has developed the easiest and cheapest jobs in Indonesia. Bira Island is located on the island of Thousand that became one of the top ten priorities to Indonesian tourist destinations (Prodjo, 2017). The natural beauty of the sea on the island of Bira cannot be replacing with anything. This tourist attraction is close to the capital city of Jakarta is famous for congestion and crowds around its inhabitants. However, there are attractions that must be visited in the north of the capital. This vast island has about 29.5 hectares. While, they are waiting for the atmosphere of sunset arrived, they spent time enjoying the clean sand. The sand of an island including the best. It is smooth and clean. White colored bones allow visitors to play alongside their sons and daughters on the beach. They can take pictures or photos here. The island was originally a private resort owned by a businessperson. In this resort is very luxurious, there are several resorts that could be enjoying by tourists, and there is a very wide golf course and a swimming pool (Sulvijayanti, 2017).

As one of the icon of Jakarta's mainstay tourism, so many travelers that wanted to visit the islands in this archipelago cluster every Saturday morning in Muara Kamal Dock (MKD). Despite the stinking its condition, it does not arrange neatly, and sometimes some roads to the harbor inundated because of the tide. A lot of traveller always visits the coast every weekend. This island became one of the coastal tourist destinations are quite easy to reach in terms of both mileages and cost. In addition, these islands have a beautiful underwater panorama. This island is one of the beaches whose beaches are slopping and has white sands that attract them to travel. This study responds to the Indonesian Tourism Minister's plan and aims to discern Coastal Ecotourism in Bira Island, Indonesia.

## 1 Literature Review

More than half the world's population live in coastal areas that make coastal erosion a global problem. The beach is populated and has experienced and seen to what extent coastal erosion - coastal shorelines are changing. These conservation efforts tend to increase awareness of coastal processes and their impacts. The beach has various formations due to coastal erosion. These formations affect people's perceptions, in utilizing coastal areas. Coastal

ecotourism (CE) developing coastal environmental conservation is one of the safeguards taken against coastal erosion (Armono et al., 2017; Farrugia, 2017).

The expansion and development of ecotourism areas is a complex phenomenon and needs to analyze from different perspectives. Currently, the development of the CE region is increasing rapidly. The expansion of the CE area has a close relationship between sustainability, environmental carrying capacity and the limits of tourist growth. These three aspects should be consider in the management of ecotourism. CE management uses the concept of carrying capacity of coastal tourism activities that include coastal tourism, snorkeling, diving, and mangrove forest tours (Attemene and Eguavoan, 2017; Nuzula et al., 2017).

The natural beauty of the coast are not only reflecting off the sea, but also on land. White sand that stretched widely is ready to pamper the eyes of anyone to visit there. The beach has its own unique scenery, and its strategic location accelerates the development of the CE in that location. The CE gap between coastal - terrain suggests that travel agents, local governments and tour operators to deserve or improved visual aesthetic performance in coastal areas. This can enhance the beauty of the coastal environment landscape towards the visualization of tourists in enjoying the natural theme along the coastline supported by culinary tourism (Sakata and Prideaux, 2013; Porter et al., 2015; Hengky, 2017a; 2017b; 2017c; 2017d; 2017e; Pace and Morgan, 2017).

The development of moderate mediation has modeled on coastal natural capital where emotional value serves as an intervention mechanism in the relationship between nature and CE. The tourists provide support for this program by crossing the various dimensions of natural capital. Mediation of socio-cultural and economic dimensions has a positive impact on ecology and their ecotourism intentions. Emotional effects depend on ecological benefits that generate profit or economic contribution. Emotional value encourages a moderate effect of the economic benefits of CE motivation as it reinforces the positive relationship between intrinsic motivation and the perception of ecotourism values (Picard, 2015; 2007; Liu and Huang, 2017; Rhormens et al., 2017).

The development of CE changes the natural dynamics between coastal environments and has strong implications for marine life. The life of marine life that is on the ocean coast and often depends on certain conditions. Development in coastal areas affects the biota environment in coastal areas with the distribution of animal and biota living locations in the region. Improving coastal development under mixed tourism management plans to support the emerging tourism industry can degrade coastal attractiveness and quality. Conversely, culinary tourism can actually improve the convenience of coastal ecotourism activities (Roe et al., 2013; Rusli et al., 2015; Pedrini and Ghilardi-Lopes, 2017).

Erosion of coastal waters poses a significant threat to economic growth and coastal environmental impacts. The market for tourism services is a key factor of coastal economic growth. Evaluation of the CE economic implications for coastal erosion is useful to support coastal protection costs taking into account income losses. The susceptibility to coastal erosion leads to the loss of tourism desirable beauty - value of relevant economic activity strongly influences the economic growth of the environmental and economic approaches along coastal areas. The value of the eroded beach determined by the scale of the tourism business. Realistic cost-benefit scenarios of stakeholders and related policy makers help them in prioritizing and allocating budgets and benefits from the point of view of coastal area utilization management (Alexandrakis et al., 2015; Garland et al., 2017).

Potential coastal resources developed as natural areas with coastal landscape planning for community-based CE areas. Assessment of the potential for ecotourism objects and landscape attractiveness needed to maintain the suitability of the landscape and the carrying capacity of the coastal environment. Assessment of potential objects and attractions using environment-based methods. Meanwhile, to assess the suitability of ecotourism areas and carrying capacity using coastal ecotourism standards. Ecotourism objects and appraisal appraisal show that coastal areas have a variety of coastal ecotourism attractions with potential and potential categories. The planned ecotourism activities include ecosystem observation tours, camping, swimming by the beach, diving, snorkeling, fishing, taking pictures, sightseeing, culinary and souvenir centers. To protect the coast as a tourist area, local

governments manage local regulations and conservation area policies. Community participation should be improved to provide opportunities for economic growth of coastal communities (Hadi and Nurisjah, 2012; Chien, 2016; Liu and Huang, 2017).

The aspect of inter-population CE relationship between several villages in the coastal environment has environmental economic activities involving interpretation programs, environmental and conservation ideas defined by cultural and natural reserves. The program distributes environmental and marine conservation tips that applied in the field. In particular, environmental economic activities carried out through an integration program-acceptance and internalization of conservation principles in coastal areas. This activity contributes to the crystallization of nature conservation space and marine life (Carrier and Macleod, 2005; Doyon and Sabinot, 2014).

However, CE is a travel activity to areas that have a visual aesthetic of coastal landscapes, enjoy the beauty of the landscape along the coastline, equipped with culinary tour (CT), and provided handicraft tourism (HT). Besides, it preserved coastal environment, supporting the local economy (Hadi and Nurisjah, 2012; Alexandrakis et al., 2015), and empowering local people (Roe et al., 2013; Hengky, 2017a; 2017b; 2017c; 2017d; 2017e; Liu and Huang, 2017).

## 2 Materials and Methods

This mixed-mode, qualitative and quantitative study (Jenning, 2001; Tong et al., 2007) was conducted from February 2016 - March 2017 on the island of Bira (Figure 1). The study had conducted by spreading 270 questionnaires purposively to: tourists, tour guides, tour operators, hotel and restaurant staff, bus drivers, travel agents, culture and tourism departments, local traditional food merchants, souvenir vendors, local communities, and tourist associations. The environmental-based questionnaire covers three areas covering coastal, culinary, and handicraft topics.



Figure 1 Bira Islands (Google, 2017)

The data collected had calculated using content analysis (Cohen, 1960; Henderson, 1991; Gottschalk, 2013), based on the concept of coastal ecotourism. Content analysis is a qualitative research technique with one method of content analysis application today. The approach is used to interpret the meaning of the text data content and. The main difference between these approaches are the code scheme - the origin of the code. In content analysis, the category derived directly from text data. Analysis begins on the theory of relevant research finding. Analysis of summative content involves counting and comparison, usually keywords or content, followed by an interpretation of the underlying context. The key-point in traveling coastal areas with aesthetic, enjoy the beauty of landscape, and culinary and handicraft tourism. In addition, preserved coastal environment, increasing local economics, and empowering local communities (Kelkit et al., 2010; Phillips, 2010; Krause and Weir, 2011; Hadi

and Nurisjah, 2012; Doyon and Sabinot, 2014; Alexandrakis et al., 2015; Cobbinah, 2015).

The collected data had emphasized by triangulation technique. This completes observation data, open interviews, secondary data for proof (Marwick and Uniger, 1975; McLafferty, 2004). Interview results offset significantly by the situation of the interviewer in terms of topics, interests, and opinions or views of respondents. In summary, the content analysis results from coastal ecotourism explore differences between opinion, post each variable, frequency is calculated, and debate with existing or targeted performance (Nouri, 2008; Nouri et al., 2008; Krause and Weir, 2011; Pace and Morgan, 2017; Nuzula et al., 2017).

### 3 Results and Discussion

The results of data collection and tabulation (Table 1) indicate that the performance of coastal ecotourism on Bira island is sufficient to meet CE requirements ( $K_1 = 0.5888$ ). The performance advantages supported mainly by traveling coastal areas with aesthetic (0.1887). Tourists enjoyed the beauty of landscape (0.1824). While, preserved coastal environment (0.1698) has not been commensurate with traveling coastal areas with aesthetic. Similarly, local economics (0.1635) had not been fully supporting by empowering local communities yet (0.1572). However, culinary and handicraft tourism has not been optimized (0.1384).

Table 1 Existing performance of Bira coastal ecotourism

Culinary and handicraft tourism	Value	% Freq
Traveling coastal areas with aesthetic	30	0,1887
Enjoy the beauty of landscape	29	0,1824
Culinary and handicraft tourism	22	0,1384
Preserved coastal environment	27	0,1698
Increasing local economics	26	0,1635
Empowering local communities	25	0,1572

Note: Kappa Coefficient =  $K_1 = 0,5888$

Furthermore, the results of the performance tabulation expected by stakeholders (Table 2) show that their expectations on CE on Bira island can still be strengthened ( $K_2 = 0.6778$ ). The main thing is traveling coastal areas with aesthetic should still be increased to the priority scale (0.1803) supported by Preserved coastal environment (0.1585). Both of these are increasing local economics (0.1639). Secondly, local governments need to prioritize the performance of coastal ecotourism destinations that serve the beauty of landscape (0.1585), where tourists can see sauce enjoying culinary or handicraft shopping (0.1530).

Table 2 Expected performance of Bira coastal ecotourism

Expected - Bira Coastal Ecotourism	Value	% Freq
Traveling coastal areas with aesthetic	33	0,1803
Enjoy the beauty of landscape	29	0,1585
Culinary and handicraft tourism	28	0,1530
Preserved coastal environment	32	0,1749
Increasing local economics	30	0,1639
Empowering local communities	31	0,1694

Note: Kappa Coefficient =  $K_2 = 0,6778$

Furthermore, each section of CE performance support will be discussed.

#### 3.1 Traveling coastal areas with aesthetic

Tracing the island of Bira provides a new experience of the tourists. Amazingly, Bira Island is included in the cluster of Thousand Islands and can be reaching within 3 hours of Muara Angke Port (MAP). There are several islands around it, the island of Bira Besar, the island of Bira Kecil, and several other islands. Place them on the island of Big Bira where there are many cottages available for hire. This island has plenty of food available.

Bira Island is an island that is in the cluster of the Thousand Islands. Administratively, the island of Bira belongs to the Thousand Islands Administrative Region, with Districts of Harapan Island and belongs to the Province of Jakarta. The island is adjacent to other islands namely the small island of Bira, the island of Deer, the island of the grave of China - the island of Genteng is not uncommon that traveling through this island, then the other islands are also explored because of its adjacent location and has a different beauty different from each other. It said that every island in this archipelago has a different character.

As soon as the ship rests on the island of Pramuka, then the next trip to the island there are more than 300 islands in the bay of Jakarta. Many tourists and people who began to visit one by one island to know the island and how the nature. At the pier, the seawater is clear as a sea fishpond and milkfish that looks very shallow, for a moment can close my eyes to feel what is not that simple.

Actually, to get to the island of Bira must first stop at the island of Pramuka, which is a transit place before heading to the big island of Bira. There is no ship from PETA to go directly to Bira Besar Island. The previous year there was a ship that could deliver directly. The island has managed by a resort. Right now, the resort closed, then the transport back using fishing boats to arrive at the destination island. Even so, it makes no difference. The beauty has begun to wait to be enjoy and explored.

Routes and trails to the island via Marina Ancol jetty or at Muara Angke. They can choose anywhere closer to their home. Arriving at the dock there are options of several ships that can ride up to this island, one of which is a wooden ship that is often used. The community to climb other islands in these islands also often uses this ship. MAP also has a very clear seawater - shark and fishponds are shallow so that can be see directly by the eye. They departed from the MAP and stoped at Pulau Pramuka. There is no ship directly to the island of Bira. There was fast boat that could go straight to the island. It is closed now do not know the reason. The journey to the port of the island of Pramuka is quite short, only about 30 to 40 minutes. They can transact to the island of Bira, which takes about an hour. While, they can enjoy the beautiful scenery of nature is very beautiful.

A lot of transportation that they can use to avoid getting lost to get to MAP. They can use online transportation that is currently a trend such as Gojek, Grab or Uber. They just stay ordering via their mobile phone then the driver picks up and escort them to the dock. They can also use public transportation of Transjakarta bus or city transportation.

Several years ago, a fast boat could deliver directly to the island. This island is a well-managed resort island formerly. Finally, it closed by the management. The angler's wooden boats they have rent it to take snorkeling to some coral spots and to some uninhabited islands.

The first spot they visit is the island of Air. This private island has a clean beach, and surely healthy coral reefs and diverse fish. For those who have never done snorkeling nor swim, this is where their guides provide brief and light training in snorkeling.

Continue to the second spot, they snorkel on the island of Macan. Coral reefs on this island are also doing not to bad. Some underwater cameras capture this delightful activity. Each trip participant has given the opportunity to style under water and be immortalize with the camera. Tour guides provide tricks on it. Local governments must maintain and improve the performance of CE in response to the plans of tourism ministers (Partowiredjo, 2011).

### **3.2 Enjoy the beauty of landscape**

The tourists can do many of their activities amid the beautiful landscape. The island is a collection of sand that has a white color and is located in the middle of the sea. They can spend a lot of time for this island or stay here. Lots of a lodge offered on the island ranging from homestay, hotels, and cottages to villas. Of course, each type has different facilities provided depending on the price and class offered. Many rooms have a direct view of a sea so making their morning waking up feeling perfect. There are other options for whom do not want to stay at the hotel ie set up a tent. Camping is one of the wrong decisions on those have a backpacker soul. This feels exciting and

fun. In addition to budget or low cost, this makes them an unforgettable experience. At night, they can make a bonfire warming their body by collecting small woods from tree branches around the island. They need to bring their own tent equipment too.

The potential for coastal ecotourism activities that attract tourists is diving and snorkeling. The beauty of underwater biota is not less beautiful that includes the diversity of marine fish in this island is also very many and unique. They can see the rocks that grow well under the sea. The tourists can also feel the paradise under the sea because of the beautiful creatures that grow. They also have to be careful that they can be impaled and cause injury to their body. In addition to injury, they can also feel fever as sea urchins punctured them. This animal is indeed funny and unique hard to remember never to touch it.

There are also some plants and trees that make the atmosphere so shady and cool on the island. They can relax to spend time for a tree. Feeling the sea breeze blowing and hearing the sounds of seawater is a very enjoyable activity. They can carry the mats and spread it on the beach. The waves of the island are quite calm. Therefore, they can do many things at sea or swim and play water on the beach without fear of being - swept away by the waves. They can see from a distance a group of dolphins that jump to the surface around the island.

After arriving at this, they had many activities chosen. Take a break is an option then a lunch or continue their activities with snorkeling. The fishing boats are ready to take them on snorkeling at some predetermined spots where coral reefs grow and flourish beautifully. They also invited to visit an island that has no inhabitants enjoying the unspoiled natural beauty of the island.

The first spot to visit is the island. This private island is an island that has a clean beach and a healthy coral reef with fish of various kinds. For those who have never done snorkeling, then can swim around the coral reefs. Then they asked the guide to provide a brief and light training in snorkeling activities. These concerns slowly change into amazed admiration and pride of their natural wealth, after they witnessed so beautiful and majestic natural wealth under the sea.

On this island many coral reef are beautiful. Bira Island is a private island that is more fun and more privacy compared to other islands. At the time of snorkeling, each participant has given the opportunity to pose for the water by using underwater camera. After that, all the tourists return to the island and get ready to see the sunset or sunset. Uniquely, they see and enjoy the sunset and sunrise it is in a romantic place on the island.

In the afternoon many of the visitors are waiting for the sunset or sunset and of course do not want to miss this moment. The exotic twilight was the moment they had been waiting for. The yellow color of this sunset reflection becomes a favorite time for tourists. At nightfall, they also did not release the beautiful scenery presented by the sky. The expanse of stars in the sky looks so clear and makes the visitors feel at home and comfortable. They spent time laying mats and looked up into the sky. Stars scattered in the sky look so clear.

### **3.3 Culinary and handicraft tourism**

In addition to traveling, they can enjoy the traditional culinary of the island such as Sate Gepuk, Talam fish, Puk Cue, Kah cake, Mpek-mpek and seafood. In addition, they can buy souvenirs that include craft, Candie and Dodol of seaweed, fish crackers, and Sukum chips. All this strengthens the economy in this region.

Sate Gepuk is a typical food of Panggang Island residents. This type of satay is very different. Usually, sate using pierced and burned meat then given the seasoning of soy sauce and nuts. While, this satay different both taste and how to serve it. It is a sate of tuna fish mixed with grated coconut. What makes it unique is the way it looks and looks. To manufacture it by beating, afterwards on the pack-using banana leaves, and burned. It was spicy and tasty. Island people are usually having it as a side dish mixed with rice.

Furthermore, Talam fish is one of the typical baked island cakes made from rice flour cooked to be like jelly or pudding and given a sprinkle of fresh fish. This cake made from sticky rice filled with spiced fish dough, which

made in round shape then fried. This cake usually served as the morning accompanied by a coffee or tea drink as a substitute for breakfast.

Furthermore, Puk cue is a typical snack of grilled island made from sago flour mixed with fish and spices. Puk cue difference is wearing peanut sauce. It used fish usually tuna fish, but can also use other sea fish. Preparation by mixing sago flour, boiled fish that has been mashed and seasoning kitchen then made the dough and formed lengthwise approximately 30cm or formed round and steamed. It sliced - fried. It also can be without steamed, directly sliced - fried. This snack can also made crackers, after steamed it thinly sliced and dried in the sun to dry then fried.

However, Kah's cake is also one of the island's typical snacks, which come from the coconut island, but usually the cakes made at the Lebaran seasons. The cake made from glutinous rice, sugar, eggs, coconut milk, vanilla, and liquid milk. It feels special. The cooking process is full of struggle. After all the ingredients are mixed, it roasted. Nevertheless, the fire position to bake is not under a baking sheet, but on a baking sheet.

The typical food of this island is peanut spice Mpek. These fish-based foods fried then dipped in peanut spice. Fish that became the basic ingredients of this food cannot be ascertaining. One of the sellers of peanut spice. it makes fish-based Mpek-Mpek not determined in accordance with the catch. Various kinds of fish that are usually used are mackerel fish, tuna fish, fish Selayar and many more. Other foods provided by the manager are also seafood in the form of grilled fish or other seafood.

After a tour, they can go on enjoying a typical regional cuisine or crafts. On this island there are also various kinds of handicrafts made by indigenous people of Pramuka Island such as wall hangings made of shells, key chains, wallets, and shirt painting.

Candy seaweed, a delicious meal is also available on several islands in the archipelago. The special that comes from this island, is quite interesting for tourists, it tastes very delicious. Dodol seaweed is one of processed foods derived from seaweed has a sweet and legit taste.

The original fish crackers made by Tidung Island residents are unique. They cannot buy anywhere else. The marketing process only existed on the island only. The price is cheap (relatively diverse), it tastes good, tasty and packed in small packets to not bother you when bringing it home has the main reason why fish crackers are so very popular and depends on the size of the manufacturers who sell it. One of the famous fish crackers brand of this island is fish crackers that feel the taste of fish but not rancid.

Breadfruit chips of this island can also get a very special price. This breadfruit chip is suitable for the make as a casual friend or friend coffee. The taste of breadfruit chips there are two kinds of breadfruit chips taste sweet and salty. Both are equally delicious and suitable for those who like to taste. Breadfruit chips are not hard but crunchy and there is a sensation when chewing.

### 3.4 Preserved coastal environment

This activity strengthens the regional economy indirectly and in the long term. This destination is located amidst the hustle and bustle of Jakarta City that line of there is still a place that is still beautiful and natural. At the same time, environmental conservation efforts create marine ecotourism. On this island many beach plant are by Nyamplung (*Calophyllum Inophyllum*), Waru (*Hibicus Tiliaceus*), Pandan (*Pandanus sp*), Cemara laut (*Casuarina Equisetifolia*), Cangkudu (*Morinda Citrifolia*), Butun (*Barringtonia Asiatica*), Bogem (*Bruguiera sp*), Sukun (*Artocarpus Altilis*), Ketapang (*Terminalia Cattapa*), and Kecundang (*Cerbena Adollam*).

The wealth of marine life consists of hard / soft corals of 54 species, 144 species of fish, two types of clams, three groups of algae such as *Rhodophyta*, *Chlorophyta* and *Phaeophyta*, Six (6) types of seaweed such as *Halodule sp.*, *Halophila sp.*, *Enhalus sp.* and 17 species of beach birds. The island is home to nesting and largely protected by mangrove forests that are home to monitor lizards, gold and python ring serpents, hawkbill (*Eretmochelys*

*Imbricata*) and green turtles (*Chelonia Mydas*), which are endangered species.

The waters of the island of Bira Besar are one of the areas that have the ecosystem of seagrass and coral reef ecosystem as a place to live sea cucumber. Some human activities on the island of Bira Besar such as the construction of several tourist facilities such as the construction of the dock by using materials derived from coral reefs and the use of a ship that caused the occurrence of oil spills occurring in the waters of this island.

From the observation and identification of the type of sea cucumber most often found in both the seagrass and coral reef ecosystem is the genus *Holothuria*. These sea cucumbers like *H. Atra* and *H. Leucospilota* are a type of sea cucumber belonging to the fissiparous group, ie groups that have the potential to reproduce by splitting themselves.

Sea cucumbers found in seagrass ecosystems and coral reef ecosystems are mostly included in the order *Aspidochirotida*. Sea cucumber *Aspidochirotida* is a sediment feeder (deposit feeder), this biota group is often found in calm, sheltered waters, and richly accumulate organic matter.

With the discovery of sea cucumbers from this Order, the location of the ecosystem of seagrass - coral reef ecosystem is a suitable habitat for the development of sea cucumbers from the order. Tropical waters have a variety of ecosystems that can break the currents such as seagrass ecosystems and coral reef ecosystems. So that, some marine life such as sea cucumbers that exist on the ecosystem can be protect from strong currents and marine biota will get the accumulation of organic substances from the movement of ocean currents.

*Holothuria Fuscocinerea* has the highest abundance in coral reef ecosystems, cause the ability of these sea cucumbers commonly found to live in clusters of the coral reefs. Then the ability of this sea cucumber that is able to share the habitat with sea cucumbers of other species.

Species diversity of seagrass ecosystems falls into the low category. It presumed, the substrate consisting of little sand and shade. It causes not too many sea cucumbers to survive under these conditions, but found the existence of dominance by certain types. This can happen, the substrate in the seagrass ecosystem consists of sand, and the shade is still penetrating by the sun.

The high awareness of the community to take care a Mangrove ecosystem is very influential the continuation of anglers' livelihoods. All marine biotas come there. It considers Mangrove as a house, life and breed or foraging. Shells and crabs as a favorite prey of the anglers who certainly can attract the attention of tourists.

### **3.5 Increasing local economics**

The presence of cottages improves the regional economy. There are about 20 cottages that reserved for lodging, some of which are always full. It can be say that the island is never deserted but not busy as other islands. Privacy is well preserved and everyone can do some personal and family activities freely. The beauty of nature on the island is more beautiful enjoyed in privacy with loved ones. It is good for always bringing a camera cause all the beauty of this island. Various activities can be properly capture as documentation for mementos and for display in social media. The rest is to capture a variety of moments that may only happen once. The beauty of this slopping beach and has clean, white sand is also smooth. Various beauty existed. It can be maximize by circling various angles with nature and various types of biota. The diversity of animals that roam naturally. This island is a paradise for the traveler as well as who is happy to do snorkeling.

### **3.6 Empowering local communities**

Mangrove cultivation along the island, able to support community development activities around. Such as school people around the stalls, docks, schools, religious offices, and community empowerment gazebos, often refer to services, health centers, milk corner services, nutrition posts, food stalls and food. Mangrove can be a natural source to be process into trade commodities.

Mangrove planting activities is an activity to increase the importance of water resources to be utilize by



surrounding communities. It certainly related to the increase in nutrients and nutrients for each intake of food they consume. Besides, the presence of mangroves can provide awareness for the community around the importance of maintaining the environment with the source of clean water. This activity provides a role in marine conservation. Of course, it can increase the income of local residents.

#### 4 Conclusions

Discussion results and observations show that there is an existing and expected CE performance gap on Bira Island. By overcoming the gap, it can improve its performance in the future. By maintaining the quality of coastal environment naturally, it helps improve CE performance. The tourists can enjoy the various beauty of marine life and the environment. The quality of the coastal landscape also enhanced. Its cause the surrounding landscape enhanced the scenic. In addition, there are several things to note. Such as strengthening the potential of culinary tourism that can improve the economy of coastal communities in the short and future. In addition, strengthening handicrafts strengthens the CE performance on the island. With the increasing performance of Ce on the island, it can improve the performance of CE in Thousand Island, which is the priority destination of the tourism minister program.

#### 5 Implications

The local government should pay close attention to priorities to maintaining environmental quality and motivating local people to cultivate and handicraft. Both of these meet the performance of CE expectations on the island.

Attempts to improve CR performance on the island led to a second priority shift from favoring tourists enjoying the beauty of landscape into a preserve coastal environment. These activities create jobs of local residents, especially workers or trying for youth and anglers. At the same time, environmental conservation efforts create marine ecotourism.

The strengthening of culinary tourism creates new business and employment especially for women in coastal area. Similarly, the strengthening of crafts creates new business opportunities and employment opportunities in coastal communities.

#### Authors' contributions

The Author makes substantial contributions to conception and design, and/or acquisition of data, and/or analysis and interpretation of data. Moreover, author participates in drafting the article or revising it critically for important intellectual content. However, author gives final approval for the version to be submitting - any revised version.

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