Ecotourism development through legality of mangrove processed products dan river tracing in Cemara Beach, Banyuwangi, East Java, Indonesia

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Abstract. Mangrove ecotourisms in Cemara Beach Banyuwangi Regency continues to grow. Community groups develop Cemara Beach by utilizing mangroves as natural resources without reducing the value of conservation. Mangrove processed which have been produced is mangrove peyek, mangrove tea, and mangrove syrup. The problems founded is 1) legality of mangrove product like peyek, tea, and mangrove syrup, 2) The potential of Mangrove Rivers that have not been explored. The method used is training related to the legality of processed food products, as well as observation and documentation for the utilization of mangrove-surrounded rivers in Cemara Beach. The purpose of this is the people who are members of the Joint Business Group of Rejo Beach Pakis Banyuwangi Village, which has been consistent and committed to developing the Cemara Coast area through evaluation values. The approved results are training on food security, and that become the basis for the issuance of the legality of processed mangrove products that are certified as Household Products (P-IRT). Another result is an ecotourism attractions by traversing rivers using boats or called a mangrove tracing, where the river facilitates mangrove trees with a path to the river and sea or estuary.

1. Introduction
Mangrove forest is a tropical and subtropical coastal vegetation community that is dominated by several types of mangroves that can grow and develop in muddy tidal areas [1]. Mangrove forests have various functions and benefits that play an important role in human life, both ecologically, socially, and economically [2].

The ecological benefits of mangroves are as a habitat for biota, migrant fauna stopovers, coastal protectors, sediment traps, as well as spawning, nurturing and foraging for various fauna. The potential, both in terms of biological resources, the structure of the stands and processed products from mangrove forests can be an attraction for tourists [3]. The benefits of ecotourism are seen to be able to generate foreign exchange for the region [4].
Mangrove forests can also be used as an Ecotourism site. Fish products and products from mangrove forests can be a commodity that supports ecotourism activities [5]. Mangrove ecosystems as a source of animal protein have been widely known for a long time, but as a source of protein and plant-based foods are relatively little known. Many locations use mangrove plants for food, but their quantity and quality are relatively limited. Some types of food from mangrove plants can still be found in the market. *Avicennia* spp. commonly eaten as vegetables in the north coast of Central Java, and even still sold in the market, for example in Wulan and Banggi Market. Meanwhile, *N. fruticans* is widely consumed in the southern coast, especially in Cingcingguling and Ijo, and sometimes even sold as souvenirs for tourists, as in the coastal tourism area of Lohgending, Ayah, Kebumen which is located in the mouth of the Ijo River. As for Segara Anakan, *N. fruticans, Sonneratia* spp., And *Rhizophora* spp. still consumed by the population but not traded [6].

The business of processing mangroves into food products does not seem to be much developed and in demand by coastal communities. Many people do not know that mangroves can be consumed and the bark can be used as fabric dyes. Knowledge about the potential and benefits of mangroves as a food source is still very little and not widely known [7]. Various types of mangroves, especially in their fruit, can be used as raw materials for food preparations which are currently starting to develop rapidly. As an effort to fulfil this, mangrove and environmental management efforts need to be done immediately so that in the future the processed foodstuffs will grow and function as food sources [8].

Law Number 36 Year 2009 regarding health states that every food and drink can only be circulated after obtaining a marketing authorization by following statutory provisions. The Registration Approval (distribution permit) is issued based on the results of the evaluation of safety, quality, nutrition, and food label evaluation. One of the foods that must be registered is processed food.

Distribution authorization is granted to food products that meet safety and quality standards. Food safety is very important nowadays, considering the large variety of food products that are produced both domestically and internationally. For this reason, the government needs to create an integrated food chain to protect the public from unsafe food and endanger health. The advantage of a distribution permit for a food product is that it can guarantee that the products are good quality and safe and can also increase consumer confidence, so that the market is wider and the sales turnover will increase.

Based on the explanation above, the purpose of this community service activity is regarding the legality of processed mangrove products such as peyek, tea, mangrove syrup and the potential of Mangrove Rivers that have not been explored.

2. **Materials and methods**

The method used is descriptive method, which is trying to describe or describe the relationship between the phenomena studied systematically factually and accurately. Data was collected through training related to the legality of processed food products, as well as observation and documentation for the use of rivers surrounded by mangroves on Cemara Beach. The target, in this case, is the people who are members of the Rejo Beach Joint Business Group Pakis Banyuwangi Village, which has been consistent and committed in developing the Cemara Beach area through conservation values.

A qualitative approach is used to have a better understanding of the growing situation in the field. Data used are primary and secondary. The primary data is obtained by conducting interviews and observing the activities of the informants consisting of the tourism awareness group, village apparatus. The analysis mainly is to evaluate developments and assess the impact of the current situation.

3. **Results and discussion**

3.1. *The capacity of community based entrepreneurship potential of mangroves in Cemara Beach from the aspect of management skills*

The results achieved were training on food safety, and this became the basis for the issuance of the legality of processed mangrove products in the form of a Home-Industry Product certificate. Packaging of processed mangrove products has increased compared to the previous year. The plastics used for the project's products and mangrove tea nowadays people use thicker plastic so that the
durability of the product can be longer and more hygienic. However, product branding is still carried out simply, given the focus of the activity is to produce products in advance continuously without any internal conflicts within the community members themselves. However, in terms of branding, there will also be breakthroughs that are carried out in integration by the team with relevant stakeholders. In this case, the permission of the Health Service related to mangrove processed PIRT products. The permit is a marketing authorization granted to food products with safety and quality standards.

The legality of a home industry food product means the validity of the product is a food company that has a place of business in a residence with manual to semi-automatic food processing equipment. In accordance with Law Number 18 of 2012 concerning Food, home industry food is processed food produced by home industry that is circulated in retail and labelled packaging. Food is anything that comes from biological sources of agricultural products, plantations, forestry, fisheries, livestock, water, and water, whether processed or not processed which is intended as food or drink for human consumption, including food additives, food raw materials, and other materials used in the preparation, processing and / or manufacturing of food or beverages.

How to get a register of home industry food at the Banyuwangi District Health Office is as follows:

a. Submit a request addressed to the Banyuwangi District Health Office.
b. The data that must be in the application letter:
   - Name of owner/businessman.
   - KTP number and address.
   - Owner Phone Number.
   - P-IRT name.
   - Packaging type.
   - Composition (ingredients used). In this case the composition of the mangrove project, mangrove tea and mangrove syrup managed by the Rejo Banyuwangi Beach Joint Business Group.
   - Person in charge.
   - Address of production.
c. As a completeness, it must also include:
   - Examples of labels/packaging
   - 3 pieces of 4x6 colour photographs.
   - Photocopy of KTP 2 sheets.
   - Plan of the room where food processing is registered.
   - Examples of food products that are registered.
   - Statement letter (able to follow the rules applied).
d. Registrants get counseling from the Banyuwangi District Health Office.
e. The Banyuwangi District Health Office visits the food processing places that are registered to provide guidance.

PIRT is a form of increasing the seriousness of the group to improve the quality of life through natural resources available in the natural surroundings without repeating the value of mangrove conservation itself. Peyek mangrove, mangrove tea and mangrove syrup are processed foods, which are processed foods by certain methods or methods with or without additional ingredients. Then, PIRT is a food company that has a place of business in residence with manual to semi-automatic food processing equipment.

Improving the location and production process are met, group members must attend food safety counseling. This activity was held by the Health Service in collaboration with the Food and Drug Supervisory Agency. Counseling is done independently specifically for members of the Rejo Beach Joint Business Group with presenters from the Banyuwangi District Health Office. In the counseling given, that the process of evaluating the success of obtaining a production-distribution permit is not seen from the arrival of the officer on the specified day. Some service partners around the location become indirect evaluators of the production process. One keyword that must be addressed is hygiene (sanitation). Hygienic food is food that does not contain germs or substances that can endanger health.
In this regard, the water used is running water for washing raw materials (mangroves), a series of activities carried out in a closed room with adequate air circulation, as well as officers wearing headgear, mouth, hands and clean clothes.

In the end, the PIRT permit certificate was successfully issued by the Banyuwangi District Health Office, which meant that the production of mangrove projects, mangrove tea and mangrove syrup could be marketed throughout the market.

With the release of the PIRT certificate, many benefits can be felt by the group. The benefits of the P-IRT legality for the development of the Cemara mangrove processed product business are as follows:

3.1.1. As a legal protection tool
The community expects benefits in implementing or enforcing the law. Obligations for the legality of the P-IRT provide benefits to businesses to protect their products from the perceived insecurity of products circulating in the community. The legality of the product for the Group is to help its business to develop because by obtaining a P-IRT certificate, it can market its products more broadly than previously only to friends and relatives, this shows that one's compliance with regulations has a positive impact on himself and others. This is evident that the operation of the law cannot be separated from the services provided to the community. Because the law works by thinking about and considering what is good for the community. The law cannot be separated from human life, thus to talk about the law cannot be released from human life. Many of the results of the training answered in the questionnaire that they were reluctant to register P-IRT if there were new products for several reasons including not having time and being reluctant to take care because they were afraid the process was complicated. Besides that, they could put the old P-IRT number on new products, even though one product was number. So in the series of activities in the form of training, it is explained that registering a P-IRT is easy, besides that it also gets guidance. Coaching activities are important to do to change people's behavior in the food home industry.

3.1.2. Facilitate marketing
Marketing products that have received a certificate of home industry food products will make it easier for groups to market their products because with legal products there is no need to hide from government supervision. Besides the legality of the product can also be a means of promotion that the product has passed the food safety test because before a product gets a marketing authorization, it must have gone through several stages.

Food safety is very important nowadays, considering the large variety of food products that are produced both domestically and internationally. For this reason, the government needs to create an integrated food chain to protect the public from unsafe food and endanger health [9]. The advantage of a distribution permit for a food product is that it can guarantee that the products produced are of good quality and safety and can also increase consumer confidence so that the market is wider and the sales turnover will increase.

3.2. Mangrove tracking
Cemara Beach has enough ecotourism potential to be packaged into ecotourism packages. In addition to the beach area, tourism potential that allows it to be developed as a tourist attraction on the Cemara Beach without leaving the conservation value is mangrove. Mangrove forests in Cemara Beach are quite extensive and have not been utilized well, in addition to being an ecological function of mangroves, they are also able to support the lives of surrounding communities in their socioeconomic functions. Mangrove Beach Cemara is a new tourist attraction in the form of mangrove forest or mangrove forest with the concept of education. Tourists who visit can learn the types of mangrove plants and can participate to plant mangroves. Cemara Beach Mangrove is an ecotourism attraction that can be packaged into an ecotourism package in Banyuwangi Regency, one of the highlights of the Cemara Beach tourist attraction, tourists can also walk around the mangrove river using a boat.
The attraction of Cemara Beach is its focus on conservation activities, where conservation can become a place of education so that in this case the conservation area can indirectly be used as ecotourism, considering that the beach area is also a tourist destination because it has beautiful views directly overlooking the Bali Strait and the Island of Bali. Here visitors can also see turtle education and release of hatchlings not far from the beach. Besides that, Cemara Beach also has mangrove conservation, which in this case can also be utilized ecological and economic functions of the mangrove itself, namely ecotourism.

Another result is the emergence of ecotourism attractions by tracing the river using a boat or called mangrove tracking, where the river is surrounded by mangrove trees with a track to the river and sea borders or estuaries. After completing the mangrove forest, visitors can plant mangrove seedlings or see mangrove nurseries. The mangrove trace presented does not reduce the value of the mangrove conservation itself, because the fees charged to them in tracing the river are partly used for seedling and planting of mangroves.

The infrastructure needed in this activity is the path and tour guide. Track (track) is made with consideration made in areas that meet the criteria. The tour guide must be able to interact with tourists and have knowledge about mangroves, especially the types of mangroves found in the mangrove ecotourism area so that if there are questions from guide tourists can explain it [2].

Based on the above, the development of special interest tourism, in this case, is mangrove in Cemara Beach, it is necessary to involve many stakeholders such as the surrounding community, the government in providing facilities and infrastructure, and establishing cooperation with private parties such as investors. The government needs to help the market in collaboration with travel agents in promoting ecotourism packages in Cemara Beach. This indeed needs to be done so that the attraction of Cemara Beach can develop rapidly without reducing the value of conservation. Mangrove ecosystems, in certain areas, are open access, so that increased exploitation by humans will reduce the quality and quantity [10]. Mangrove forests can also be used as ecotourism sites, fish products and products from mangrove forests can be a commodity that supports ecotourism activities [5].

3.3. Perception of business actors and business groups

Interviews were conducted with business people who run culinary businesses in Pantai Cemara. Based on the results of the interview, where for business actors said that the development of the Pantai Cemara river into an ecotourism area, business operators who are also members of a joint business group with the Panti Rejo strongly agree. The reason is their efforts can participate in culinary that will be sold in the Cemara River ecotourism area, and they are greatly benefited by the development. Besides, from the community group itself, besides the results of mangrove nurseries which will increase culinary supply, also said the existence of mangrove tracking can be used as an attraction for tourists/visitors.

For culinary businesses and communities around Cemara Beach, they agree to the development of ecotourism areas in the mangrove track, it's just that they need a good response from the government, where they need socialization regarding waste management procedures so as not to pollute the environment, because so far the garbage disposal is only limited disposal around the area only. In this case, the community also said, the garbage produced greatly disturbed the activities of the local community because it caused an unpleasant sight.

Tourism potential is a variety of resources found in a particular area that can be developed into tourist attractions. In other words, tourism potential is a variety of resources that are owned by a place and can be developed into a tourist attraction (tourist attraction) that is used for economic purposes while still paying attention to other aspects [11].

Ecotourism activities are expected to have elements of education and conservation and provide valuable experiences for tourists. Ecotourism activities can run if an ecotourism area has an attraction that makes tourists eager to visit the area. In addition, tourist comfort is also a priority for the smooth running of tourism activities, therefore the development of must-see ecotourism in terms of factors that support and hinder the possibility of tourism activities. Mangrove ecotourism activities that are
very potential to be developed, namely bird watching, natural interpretation, natural scenery, photographing, river search, mangrove tracking, turmeric view and fishing. While activities such as swimming do not have the potential to be developed due to several inhibiting factors such as the presence of hazardous association biota such as reptiles and also the inappropriate depth of water.

The development of mangrove ecotourism areas is related to the social potential of the community, both regarding perceptions, attitudes, and community involvement in the development of mangrove ecotourism areas. The majority of the Cemara Beach community knows well about mangroves, the function of mangroves, the biota of the mangrove association. Responding to activities that make the Cemara Beach river as a mangrove ecotourism area, responded well by the community. They will also be involved in the activity. It was also seen from some physical potentials, such as accessibility and facilities and infrastructure, freshwater sources, and so on to support the development of mangrove ecotourism in the river. Judging from the access road that is given, the land route that has been paved, so that the community can access the road properly.

Based on the explanation above, if an ecotourism area is to be developed, it is necessary to continuously socialize the program or conservation counsellor to the community. This needs to be done so that the public knows and can participate in the development activities carried out. In addition, the existence of this socialization activity can improve people's understanding of conservation. Public awareness of the importance of protecting the environment has also not been fully applied in daily life. Although most of them say that public awareness is good enough, some say badly [12].

4. Conclusion
The results of activities are training on food security, and that becomes the basis for the issuance of the legality of processed mangrove products that are certified as Household Products (P-IRT). Another result is an ecotourism attraction by traversing rivers using boats or called a mangrove tracing, where the river facilitates mangrove trees with a path to the river and sea or estuary.

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Acknowledgement
Thank you to the Ministry of Research, Technology and Higher Education, which has provided the opportunity to carry out Cooperative Research Higher Education 2019 Scheme.