

Community Participation Model in Formulating Cross-Potential Mangrove Ecotourism Policies Supporting Kampung Laut Sustainable Tourism Village

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Abstract: *Kampung Laut mangrove forest tourism village has a variety of local potentials that can be developed. However, the tourist village condition are now of concern, even the tourism awareness community in "suspended" condition. Unfortunately, there is damage to the mangrove forests due to sedimentation and anthropocentric fishermen behavior, that caused the tourism villages cannot develop well and consequently the community welfare did not increase. Overcoming the increasingly severe condition of mangrove tourism village, and the extinction of local potential such as marine biota and destruction of mangrove ecosystems, local wisdom, it is necessary to develop a tourism village strategy by maximizing local potential to support mangrove ecotourism. This research is to explore the local potential as an environmental service that can be sold for mangrove ecotourism so it can develop the tourism villages can and formulate a strategy model for developing mangrove forests tourism villages based on local potential. The research method uses quantitative method. Local potential in Kampung Laut has not been developed to support ecotourism and the strategy model in formulating tourism village development policies needs to pay attention to the community participation, such as community actors, government, stakeholders / investors, Pokdarwis (the tourism awareness community) and academics by taking into account the criteria of cost, income, sustainability of mangrove ecosystems. Alternatives that need to be considered are law enforcement, community participation, local potential, and the development of tourism villages based on local wisdom.*

Keywords: *Policy Model, tourism village; mangrove, local potential.*

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I. Introduction

Segara Anakan Kampung Laut, in Cilacap Regency is one of the southern coastal areas of Central Java which has various biodiversity of mangrove forests so that it is very potential to be developed as a means of education and ecotourism. Currently, there is damage due to human behavior that is not immanent and dominated by anthropocentrism view - not biocentrism or ecocentrism. Reclamation and sedimentation causes decreasing the quality and quantity of mangrove ecosystem function. Data shows that in 1998 there were 12,000 ha of mangrove forest recorded; in 2000 it dropped to 10,000 ha; in 2003 it was 9,300 ha; in 2007 there were 8,600 ha; in 2012 it decreased to 6,900 ha; and in 2014 there were only 6,716 ha. It causes the function of mangrove forests is not optimal, both ecologically and socio-economically (Sarno et al., 2008). Another sources show that in 1998 the area of Segara Anakan was 6,450 ha, in 2003 the area was only 1,400 ha; even according to satellite imagery recorded in September 2009 the area is only 600 ha (Sudarmaji, 2014).

Based on these data, it is urgently needed an efforts to overcome the extinction of mangrove forest ecosystems in Segara Anakan. There needs people awareness, attitudes and behavior that support the sustainability of mangroves forest, in other words it need a mental revolution among Kampung Laut community. In addition, it is necessary to "sell" environmental services with the local potential of each region in a sustainable manner to improve the economy of Segara Anakan community. In this regard, this study examines the need to develop a strategy for developing mangrove tourism villages by exploring local potential, both physical and cultural; local wisdom and community participation in the coastal areas of Segara Anakan Cilacap and a sustainable village tourism policy model.

Based on Pembayun's results study in Brebes Mangrove Forest (2018), it was suggested that mangrove forest tourism village generally has attractive local potential to be "sold" as an environmental service. Local potential of tourism villages, can be distinguished on several zones, namely: (a) fishermen zone; (b) fishing zone; (c) "sekolah alam" (natural-based school) zone; (d) fruit garden zone; (e) mangrove batik training zone; (f) boiled salt craft zone; (h) educational and conservation activities zone and so on. Zone division is an effort to classify tourism villages cluster. The results of Anak Agung's research (2015) suggest that in developing tourism villages, the empowerment of local communities is urgently needed as an implication for the sociocultural defence of the surrounding communities.

The development of community-based tourism (CBT) villages is a form of tourism managed by local communities with the principle of sustainability. Unlike conventional tourism, which emphasizes more profit for investors (mass tourism). As Okazaki (2013) stated that the CBT concept has advantages such as the presence of local resources that are owned and managed by local communities. Tourism village development is also a form of CBT implementation that hope local potential can improve community welfare. The existence of tourist villages also able to preserve the culture of the community through their active participation as actors of tourism activities (Susyanti, 2013).

The mangrove tourism village in Kampung Laut, has a good potential to be developed, therefore, it is a new challenge for tourism awareness community to work hard together with local communities and related stakeholders. So far the community has been less actively involved, due to various inhibiting factors and lack of support from stakeholders. This research is to explore the local potential as an environmental service that can be sold for mangrove ecotourism so that tourism village can be developed and formulate local potential-based mangrove forest tourism villages development strategy model. Therefore, it is necessary to develop a tourism village strategy by empowering local communities, exploring the physical potential and local wisdom as an attraction to be "sold" as environmental services.

II. Research methodology

The research method used a combination of qualitative descriptive methods, content analysis, focus group discussions to explore local potential while the preparation of models of community participation in the formulation of mangrove ecotourism policies using the AHP method (Hierarchical Analysis Process). Research location in Kampung Laut District, Cilacap Regency, Central Java Province. Informants included as many as 50 people, tourism awareness community (8 people), 2 bureaucrats (Bappeda (Agency for Regional Development), DISPARBUD (Department of Tourism and Culture). AHP conducting by interviewed DPRD (local parliament) member(1 person), NGO (1 person), village officials (2 people), mangrove conservation activists (1 person), Village Representative Agency (1 person), Segara Anakan Region Management Agency (1 person) and Academics (1 person). Respondents determination using simple random sampling I with descriptive statistical analysis and AHP with expert choice, while for taking informants for qualitative methods use purposive sampling. The data analysis uses interactive analysis from Milles and Hubberman.

Physical Potential Cluster of Segara Anakan Sustainable Tourism Village Development

Local potential in the form of physical mangrove forests in Segara Anakan Lagoon which can be sold as environmental services, and attracting tourists to be developed as mangrove ecotourism has 31 types of diversity of mangrove vegetation (Sudarmaji, 2010). Some of these types include bakau bandul *Rhizophora mucronata*, bakau kacang *Rhizophora apiculata*, *Bruguiera gymnorrhiza*, *Bruguiera parviflora*, *Avicennia marina*, *Avicennia officinalis*, *Xylocarous granatum*, *Xylocarous moluccensis*, kayu duduk, *Exoecaria agallocha*, *Sonneratia*, and so on.

Other physical local potential, is the tourist attraction in the form of fauna potential belongs to mangrove forest habitat, consisting of 3 types of mammals namely langur (*Presbytis cristata*), long-tailed monkey (*Macaca fascicularis*) and linsang (*Lutra perspicillata*), rest area and 41 water birds species, spawning grounds, raising fish seeds and foraging for 45 species of fish, also types of reptiles, namely monitor lizard (*Varanus salvator*) and mangrove snake (*Hamalopsis buccata*) (Sudarmadji, 2010 in Suyanto, 2017: 68).

Community empowerment, as a servant of ecotourism is local potential concept that supports Kampung Laut mangrove ecotourism development. "Unique" natural tourism objects can be developed, among others (1) conducting traditional crossing water trips by boat to do fishing, looking for crabs, and introducing how to knit nets, netting, make salted fish, prawn crackers and cook Pejagan fish. (2) guest house are made near to the tourism industry (home industry), such as rowing training center and floating restaurants. (3) sports facilities that need to be provided include sand volley beach sports, and water motors. (4) Other support can be sought by making guest house on stilts and used nipah leaves as roof for all building. That is the strategy in developing ecotourism by utilizing local potential in the form of physical resources that can empower local communities.

Around Kampung Laut there is Nusakambangan Island, which has Permisan Beach, Kalipat Beach, Kalikancana Beach and a few more beaches. These beaches are rarely touched by humans, because they are located on the

Nusakambangan island, where still tightly guarded, so these beach is still beautiful and "virgin". The tourist can use a boat to get to the beaches. Therefore, if a mangrove ecotourism is developed, it can be developed in a package with the beaches in Nusakambangan as a tourism destination in Kampung Laut.

The sub-district head of Kampung Laut stated about the local potential of Segara Anakan that: " 35 ha area still has the potential to be developed in agriculture," he said a few moments ago (May 2018).

"... Local potential that can be developed is mangrove tourism with the tourism village. In 2018, there is a technical guide given by the Department of Tourism and Culture of Cilacap, for its development. Tourism potential that can be developed in Kampung Laut area starting from mangrove forests, Masigit Sela Cave, Rancababakan Beach, culinary, fish ponds, mangrove handicrafts and more. Therefore, it is proposed to develop tourism villages based on the local potential of each tourism village ... "

Typical local potential of Kampung Laut must be explored and developed optimally, and it is expected to give an impact on the community welfare. However, it cannot work alone and need support from various parties, including local communities, because this local potential becomes an alternative for local economic development in various coastal areas (Ninik et. Al, 2018).

Based on the description above, the following data about the physical local potential that can be developed to support mangrove tourism villages is presented in Table 1.

Table 1.Physical Local Potential that Supporting Mangrove Tourism Village

No	Physical potential of ecotourism tourist attraction	Description
1.	Mangrove vegetation: bakau bandul <i>Rhizophora mucronata</i> ; bakau kacang <i>Rhizophora apiculata</i> ; tancang <i>Bruguiera gymnorrhiza</i> ; tanjan <i>Bruguiera parviflora</i> ; api-api <i>Avicennia marina</i> ; <i>Avicennia officinalis</i> ; <i>Avicennia officinalis</i> ; Nyirih <i>Xylocarous granatum</i> ; Nyuruh <i>Xylocarous moluccensis</i> ; kayu duduk; buta-butua <i>Excoecaria agallocha</i> ; jaranan; bogem <i>Sonneratia</i> ; alba	There are 31 Types of Mangrove Vegetation
2.	Fauna: langur (<i>Presbytis cristata</i>); long-tailed monkey (<i>Macaca fascicularis</i>); linsang (<i>Lutra perspicillata</i>); rest area and water birds (found there are 41 species); also reptilian type; monitor lizard <i>Veranus salvatori</i> and mangrove snake <i>Hamalopsi buccata</i>	There are 41 species
3.	Reptiles namely monitor lizard <i>Veranus salvatori</i> and mangrove snake <i>Hamalopsi buccata</i>	There are 2 types
4.	Water travel by boat to fishing; looking for crabs, and introducing how to knit nets, net, make salted fish, shrimp crackers and cook Pejagan fish; lodging houses (guest house) are made adjacent	Water activities, tourist food types
5.	The rowing training center	Rowing activities
6.	Sports facilities; sand beach volley sports, water motorbikes; water bikes	Water sports activities
7.	7. The building used as a guest house used nipah leaves as roof and making guest house on stilts for all building.	Building made of mangrove materials
8.	8. Permisan Beach, Kalipat Beach, Kalikancana Beach and a few more beaches, the condition is still "virgin" / untouched by humans. Masigit Cave in Nusakambangan	Located on the Nusakambangan island

Source: Secondary Document Data of Kampung Laut Subdistrict, 2018.

Promising natural and cultural resources potential in Kampung Laut can attract tourists attraction to enjoy the wealth of natural resources of the Kampung Laut region.

Local Wisdom Potential Cluster in Segara Anakan Kampung Laut

Generally, local wisdom potential in Kampung Laut is very interesting, but it has faded among the younger generation due to modernization. As a mangrove tourism village, people in Kampung Laut strongly believe in the existence of myths about the ruler and guardians of marine life. This belief is believed for generations every year, and always holds a Sea Alms ceremony which is held on Friday, on Shura / Muharam month (first month in Islamic calendar).

A lot of tourist visiting tourist attractions around Kampung Laut, such as Nusakambangan Island, the beaches around it. It is shows that this location has the potential to be developed as a mangrove ecotourism. Other local potential in the form foods such as petis (fish paste), trasi (shrimp paste) crab, rebon (small shrimp), can be used as a tourist attraction as a culinary tour in Kampung Laut Tourism Village. Sustainable mangrove tourism village development by considering three dimensions, namely social, economic and ecological sustainability (Fauzi and Octavian, 2014: 21).

Local wisdom is the main spirit in managing ecotourism and community-based tourism villages. According to Destha (in Nasrudin, 2014), the value of local wisdom is manifested in the community through the value of uniqueness, authenticity, and authenticity of the community. According to him, this local wisdom can

be offered to tourists by building tourist villages. "However, do not let the local wisdom that sold to the tourists eliminate the local community and the village identity." said Destha.

In line with Destha, Sidiq Wicaksana, explained that:

to conduct a tourist village it must be based on local wisdom. "The phenomenon that occurs is that many villages become "following" and do not depart from their local wisdom. They should be able to attract tourists with their "unique" local potential. "To manage tourism villages, the community must be able to see their own potential. Don't cheat on other tourism villages and force to imply it on their area," he said firmly.

Making local wisdom as a tourism asset is proven succeeded several tourist villages. This was recognized by the informant (Sugeng Handoko), the administrator of Ujung Alang Mangrove Tourism Village. According to him, Kampung Laut was born as a tourist village because of the natural potential in the form of mangrove forests with a variety of flora and fauna and interesting natural condition. Sugeng explained that the mangrove forest was truly pure uniqueness potential from Ujung Alang village. "There is no compulsion in managing Ujung Alang mangrove tourism village. We really see the potential exists and then develop it," Sugeng said. But it needs support from various stakeholders to develop it because so far it has received less attention from investors to develop it.

The description above is in line with the results of Suyanto's research which states that to increase community participation, a mental revolution needs to be carried out, so that increased public awareness and strengthened local wisdom by using local language and culture so that strengthening local culture (Suyanto et al, 2015: 146). Socialization in order to strengthen community knowledge needs to be conducted. As Mintarti, Niken and Wiwik (2014: 162) stated that socialization is a process of knowledge, perceptions, attitudes and behaviors changing in learning the way of life with various existing cultures.

The Kampung Laut community often hears the word Mbah Jaga Laut (The Sea Guard). This name is very influential for the people in Kampung Laut because it has a very important history. Jaga Laut means the Sea Guard. It is said that the community believed that this village which surrounded by the sea has a guardian. As a form of gratitude for the tranquility of the sea in the Segara Anakan area, then on the 1st of Syuro or 1st Muharam (the first month in Islamic calendar), the people in Kampung Laut carry out Sedekah Jaga Laut ceremony held on Friday Kliwon (the name of market day in Javanese belief).

The myths become the local wisdom of Ujung Gagak community and they generally still adhere to local customs. Sedekah Bumi (Earth Alms) and Sedekah Laut (Sea Alms), carried out on Friday Kliwon, in order to honor the nature and the creator who has given them fortune and prosperity. In addition there are also entertainment, one of them is wayang (puppet), which is believed to be able to repel reinforcements. A number of myths are still believed by the community, such as for the newcomers who just set foot in Ujung Gagak village, they are not allowed to take a nap and lean on the pillars of the house. If it is violated, there will be danger or disaster that will befall the person who violates the myth.

The life of community in coastal areas around mangrove forests cannot be separated from the ecosystem of the environment. This is manifested in the form of kinship relationships among the community and the reciprocal relationship between humans and the surrounding environment, both immanent and transcendent. Coastal communities and officials tend to adhere to the notion of anthropocentrism (human are separated from nature, so they "destroys" the nature), not biocentrism (humans appreciate living things), especially eco centrist (humans appreciate abiotic, biotic, cultural environment). These relationships provide a characteristic for the fishing communities' life in the coastal area. According to Munisa (2013: 26), mangrove forests management should be able to improve fishing communities' welfare. However, in reality there still a lot of problems arise in the community who live on the edge of mangrove forests as a reflection of their dissatisfaction with their welfare. One of the reasons why there is a difference in understanding between the government and the local community regarding the function of mangrove forests is the government sees the forest as a foreign exchange natural resource that needed for national development. Meanwhile, for fishing communities, mangrove forests have a function as life support for all aspects. Based on the description above, some data were presented in the form of Table 2 below.

Table 2. Socio-cultural Local Potential in the form of Local Wisdom of Kampung Laut Community

No.	Socio-cultural Potential attraction of ecotourism tourists	Description
1.	Arts: Kuda Kepang (Braided horses) and Kentongan(bamboo drum)	Have not been developed
2.	Revitalization of "traditional" Campur Sari (Javanese song genre)	Use drums
3.	Puppet Arts that bring Typical Story of Kampung Laut	Compete with a modern music performance
4.	The "Sea Alms" Ceremony	Held annual
5.	Other traditional custom ceremonies	Not held
6.	Myths and people's beliefs	Still trusted
7.	Typical food (culinary); crab; shrimp; rajungan (kinds of crab); terasi (shrimp paste)	Need to be developed
8.	8. Typical mangrove batik	Need to be trained

9.	9. Typical souvenirs	Need to be trained
10.	10. National Ceremony on waters by boat	Need to be supported
11.	11. Sabulungan and Kerigan (mutual cooperation)	Need to be preserved

Source: Secondary Data Document in Kampung Laut Sub district, 2018.

The results of research conducted by Sudarmadji (2014) show that mangrove forests are nursery ground for biota that live in mangrove ecosystems, and also as foraging (Ridho, 2008). This is because mangroves are primary producers that able to produce large amounts of litter from the leaves and branches of mangrove trees as food for biota in that region. The mangrove area also functions as a spawning ground for certain fish to be protected from predatory fish, as well as being the optimal environment for the mother to spawn and raise her children. Mangroves also act as suppliers of shrimp larvae, fish, and other biota, such as crabs, lobsters, and so on.

The results of research conducted by the Ocean and Coastal Policy Program, Duke University, said that the CO2 absorption of one hectare mangrove forest is the same as the absorption of 3-5 hectares of tropical forest. Mangrove forests are categorized as wetland ecosystems that can store 800-1,200 tons of equivalent CO2 per hectare (Woodhead, 2000).

Kampung Laut is one of the largest mangrove forests in Java, but the sedimentation process has caused a reduction in mangrove forests. This is reduces the quantity and quality of fish and other biota so that fishermen's income decreases. At present, there are some efforts conducting by the government and the community in managing sustainable mangrove forests by dredging the lagoon which is threatened to be lost due to sedimentation in the brackish area (Ridho, 2008: 29).

The knowledge of the Segara Anakan Kampung Laut community about the potential that can be developed for tourism villages is presented in table 3 below.

Table 3. Knowledge about Developing Tourism Village Potential

No.	Potential Knowledge in Developing Mangrove Tourism Village	Amount	Percentages (%)
1.	Art Potential	14	28
2.	Typical Food Potential	14	28
3.	Mangrove souvenirs Potential	21	42
4.	Other potentials	1	2
Total		50	100

Source: Primary Data, processed, 2018

Table 3 shows that in general the people of Kampung Laut knowing the local potential in that region. Generally, Kampung Laut community stated that to develop the tourism village potential can be reached from souvenirs made from mangrove forest products, followed by developing culinary and arts. While other potentials were only a small part that could be developed. This has an effect on community participation in the management of mangrove tourism villages. The following data about community participation in managing mangrove tourism villages is presented in table 4.

Table 4. Mangrove Tourism Village Management Participation in Segara Anakan

No.	Participation in Tourism Village Management	Amount	Percentages (%)
1.	Not involved	27	54
2.	Sometimes involved	15	30
3.	Actively involved in managing mangrove tourism villages and becoming members of Pokdarwis (tourism awareness group)	8	16
Total		50	100

Source: Primary Data, processed, 2018

Table 4 shows that generally the community is not involved in the mangrove tourism villages planning, implementation and supervision, only a small people who are actively involved in managing mangrove tourism villages, even being the members of the mangrove tourism village. Therefore it is necessary to do social engineering so that it will increase their knowledge and participation in developing tourism villages. Social engineering in an effort to develop the local potential of Segara Anakan mangrove forests in an integrative manner must be planned seriously. Social engineering cannot use a project approach, but must be based on participation by utilizing existing local potential.

The pioneer actor of the mangrove tourism village in Segara Anakan is "ATW", along with his group, Partra Krida Lestaris. For almost eight years they were reforesting an area of up to a dozen hectares. Pertamina Refinery Unit IV Cilacap began to glance at his action and made the "ATW"'s group as Pertamina fostered partners through CSR (corporate social responsibility) programs. The formation of reforestation has intensified and now the area of reforestation has reached 30 ha. "ATW" not only invites the community to cultivate in the

mangrove area, but also captures all types of mangroves that exist to develop tourism villages. In September 2016, Pertamina Refinery Unit IV Cilacap built the Mangrove Conservation Center and Indonesian Germplasm Study in Ujung Alang Village, Segara Anakan. This is being the capital to develop a tourist village.

Kampung Laut Mangrove Tourism Village Cluster Development Strategy Model.

Local potential in the Kampung Laut area needs to be developed to support mangrove ecotourism. Various local wisdom-based techniques for managing coastal natural resources need to be done in an integrated manner, with the concept of involving relevant stakeholders. Based on the strategy concept, developing mangrove ecotourism strategies must meet the following requirements: (1) Location must meet categories such as uniqueness and reachable, (2) Ecotourism planning and preparation implemented by the community, (3) Local communities involvement in managing ecotourism activities (4) Good interpretation of nature and culture, (5) Ability to create a sense of security and comfort to the tourists and also providing learning efforts for tourists, (6) Establishing sustainable working relationships with the government and locations must meet categories such as uniqueness and reachable (7) Ecotourism planning and preparation running by the community, (8) Local community Involvement in managing ecotourism activities, (9) Good interpretation of nature and culture, (10) Ability to create a sense of comfort and safety for tourists and providing learning efforts to tourists, (11) Establishing sustainable working relationships with related stakeholders.

Tourism activities not only produce beautiful things, but sometimes they damage the environment and ultimately damage tourism resources. Therefore ecotourism development must be carried out sustainably, taking into account the physical, socio-cultural and economic environment. The strategy for developing ecotourism and mangrove tourism villages based on local wisdom is a planning activity that is quite complicated if it is not supported by the community and related stakeholders. For example the arts potential, such as ketoprak (Javanese theatrical genre), calung (bamboo xylophone), but now only remain kuda lumping (Horse dance). It is only performed in a celebration, especially to accompany the circumcision, but have not performed in front of the tourists. For this reason, the strategy that needs to be done is the need for actors who can foster and promote those arts so that it can be offered as mangrove tourism packages in Kampung Laut tourism village, as one of the local wisdom of coastal communities. These actors must be trusted by the community and can empower them to participate in the developing Kampung Laut ecotourism and tourism villages.

According to Max Weber's social action theory towards the development of ecotourism and mangrove tourism villages, he stated that social action is that individual humans in society are creative actors and social reality, not a static tool of coercion and social facts. This means, that social action is not fully determined by norms, habits, values and everything that is in the concept of social facts. Ritzer (in Alimandan, 1992: 78), mentions (1) the rational act of purpose, is the act of the actor in evaluating and determining goals and actions can be used to achieve other goals. (2). rational act of value, the actor chooses the way based on the stated goals. (3) effective action, the actor's actions dominated by emotion or pretense which makes the actor difficult to understand and (4) traditional acts, here the actor's actions are based on their habits in doing things. Nowadays, needs sensitivity and trying to adjust to these positive conditions, so that tourism concepts are developed to rises innovation. The interaction of local people with tourists is more emotionally and socially subjective, more concerned with social relations than the economy (Santoso and Priyono, 2012).

Developing mangrove tourism destinations, must be interpreted as developing the number of tourists which can give an impact in developing another destinations as a whole, including the local potential of communities around the mangrove tourism village (Ftri Abdillah et al, 2015). However, the government should be pro-active in arousing and stimulating the community, with good cooperation between the government and the community (Saryani, 2013): 51-52).

The strategy in developing ecotourism and mangrove tourism villages by applying community-based tourism clusters concept, as offered by the Head of the Culture and Tourism Research Center of Unsoed Institute for Research and Community Service, Rawuh Edy Priyono (2018) suggests that:

"... strategy model for developing tourism villages, it is necessary to try out a cluster of local tourism villages. Every tourism village has excellent potential that can be used as an integrated tour package, so that people can manage tourist areas together with each other's specialty".

Referring to the model offered by Rawuh about tourism village clusters, so ecotourism development strategy in Segara Anakan can be applied by highlighting the existing potential. The strategy in developing ecotourism, a regional system can be applied, as stated by Ria Puryanti (2009), that mangrove ecotourism can be grouped into 4 regions. (1) mangrove forest protected areas, intended for scientific activities, such as the introducing mangrove vegetation and animals for research activities, (2) protected areas around the mangrove forest, intended for scientific tourism (introducing wildlife vegetation and aquatic biota) and research, (3) mangrove ecotourism areas, intended for scientific activities (introducing mangrove vegetation and wildlife) and recreational activities (sight seeing, photo hunting, bird watching, board walks, fishing, introducing cultural arts, culinary, handicrafts or souvenirs made from mangroves), (4) mangrove ecotourism areas, intended for

scientific activities (introducing wildlife and aquatic biota) and recreational activities (sight seeing, photo hunting, bird watching and fishing).

Mangrove tourism villages development based on local potential clusters, requires the collaboratively involvement from stakeholders. The collaborative process is a key element in managing mangrove tourism villages. According to Dyah Gandasari et al. (2015: 84) suggested that there are three important preconditions in the collaborative process namely participation, equality of power, and adequate competence of stakeholders. However, the results of the study show that collaborative processes occur in stakeholders' collaboration need higher participation in tourism development (Dyah Gandasari, 2015: 89). In line with that, Benckendofft et al. (2009) stated that mangrove tourism is positively correlated with the local communities' quality development, that makes community welfare increases, but it needs collaboration in implementing ecotourism development. The ecotourism development strategy model with improved facilities and infrastructure in Kampung Laut tourism village, among others (1) certain accommodation, is needed if tourism is held in more than 24 hours in a tourist village as a place to stay. (2) Transportation, closely related to tourist mobilization, also used as an ecotourism attraction. (3) Providing typical food in Kampung Laut tourism village. (4) Tourist objects and attractions which belongs to the local wisdom of the Kampung Laut community, in the form of natural tourist attractions. If one of them does not exist, then this strategy for developing ecotourism and tourist villages does not go as expected. Mangrove tourism destinations development is expected to improve local communities quality of life and welfare of with their potential (Anderect et al., 2012). In line with that, Aref (2011) stated that the quality of life of local communities will increase as a consequence of the mangrove tourism destinations development. Based on the description above, it can be presented the following table 5:

Table 5. Mangrove Ecotourism and Tourism Village Strategy Development in Segara Anakan

No.	Ecotourism and Tourism Village Development Strategy
1.	Traditional arts potential development
2.	Segara Anakan's special food potential development
3.	Batik handicrafts made from mangroves potential development
4.	Marine and mangrove souvenirs potential development
5.	Cultural potential (ceremony; myth; belief) development
6.	Water sports activities; beach potential development
7.	Fishing activities; row; making food stuff from mangrove and sea products potential development
8.	"Mangrove" tourists' houses potential development
9.	Physical potential of flora; fauna; reptile; mangrove forest development
10.	Other potential ecotourism objects development
11.	"Guide" tourist services
12.	Village tourism clusters development
13.	Artificial tourism activities development

Source: Primary Data, processed, 2018.

The synergistic concept between the sustainability of local potential, needs to be supported by adequate infrastructure and facilities and government policies. The main steps that can be taken are promoting mangrove cultivation and adding gazebos at several points of mangrove forest as a resting place. Collaboration between relevant stakeholders is needed, as the results of previous studies said that the collaboration process has the same characteristics in emphasizing the importance of cooperation among stakeholders (Akadun, 2011: 12; Sufianti et al., 2014: 31).

The name of Kampung Laut ecotourism attracts tourists, so that it is expected to be able to create an independent and prosperous society, the unemployment rate decreases and increase people's livelihood. Women are no longer as passive parties, but more active without reducing their obligations as housewives. The community as managers must be able to care for and maintain the cleanliness of their environment, as well as tourists. If this is done well, sustainable mangrove ecotourism can be achieved.

Segara Anakan area has potential resources that can be developed and the existing potential resources namely tracking, fishing, bird watching and boating, the sustainable local wisdom potential attracts tourists to travel again in the future (Usher and Kerstetter, 2014). The tourist visit in the mangrove area is an implementation of the tourists' choice in determining tourism destinations based on the attributes and environmental conditions of tourism (Saraniemi and Kylanen, 2011).

Formulating sustainable mangrove ecotourism policies alternative model structure

Based on the description of mangrove ecotourism development strategy, the policy model in the management of mangrove ecotourism formulated with AHP analysis, provided in the following model formulation in Figure 3 below:

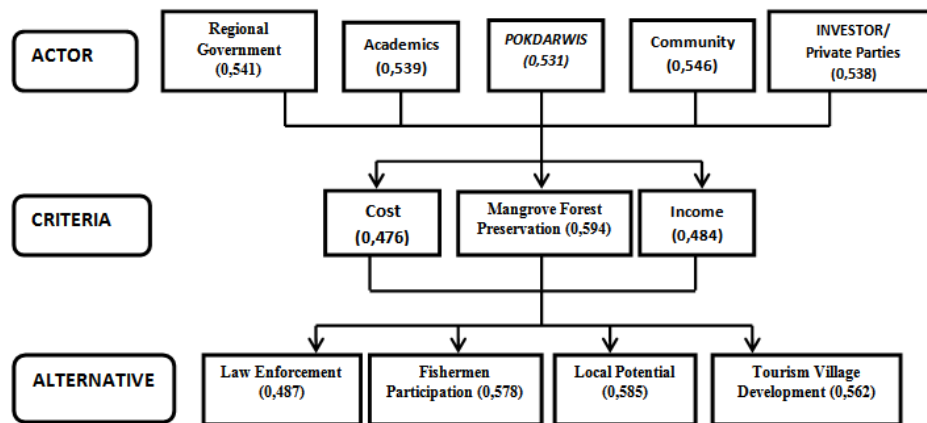


Figure 1. Formulation of the Mangrove Ecotourism Management Policy Hierarchy Model

III. Conclusion

Local potential in Segara Anakan can be developed as a mangrove ecotourism and supports sustainable tourism villages. Generally, public awareness and understanding about the functions, benefits and impacts of mangrove forests and tourism villages are still lacking due to the lack of socialization about the importance of mangrove tourism villages. The mangrove ecotourism policy model offered is the need to pay attention to the community actors, government, investors, Pokdarwis (the tourism awareness community), academics, also when it is view from the criteria, it need to pay attention to the income, costs and mangrove conservation, while the alternative policies that need to be considered in building this policy model are local potential, law enforcement, community / fishermen participation and tourism village development. The existing tourism village development strategy model is less sustainable and less involved in the community. The current government is not totally support the infrastructure, funding, and human resource development in mangrove tourism villages development.

Researchers suggest that it need training on how to process or utilize the existing local potential to support the sustainable mangrove ecotourism development. To formulate a sustainable mangrove ecotourism management policy, it is necessary to involve various stakeholders by taking into account the policy model formulated with AHP. It need a village cluster and cooperation between local tourism villages in marketing the tourism village development strategy model. The government needs to pay attention to the AHP policy model in compiling tourism village policies.

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