

## LOCAL WISDOM – BASED MANGROVE FOREST CONSERVATION MODEL OF FISHING COASTAL VILLAGE SEGARA ANAKAN CILACAP INDONESIA

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### ABSTRACT

*Segara Anakan in Central Java, Indonesia, is a mangrove forest area, which has a wealth of biodiversity and typical ecotourism. There has been a destruction of mangrove forests due to the lack of wise (immanent) which is not transcendent and also sedimentation that resulting in raised ground (aanslibbing) lately. We need a model of mangrove forests conservation to cope with the decrease in mangrove ecosystems. The objective of this study is to analyze the local wisdom as a social capital of the mangrove forest conservation to embody fishing innovation village towards the coastal villages. The method of the research is a combination of qualitative and quantitative. Research conducted in 2 villages namely Ujung Gagak and Ujung Alang. Research objectin clude fishing communities, NGO, Community Association of Fishermen, village authorities, Environmental Pioneer Activists, with a purposive sampling techniques. The results showed that local wisdom exists in Kampung Laut Segara Anakan society is the local potential and social capital need to be preserved in the preservation of mangrove forests. The fishermen's awareness to the existence of mangrove forests is relatively low, and the sedimentation needs to be "addressed" in order not to damage the mangrove forests and leading land ownership conflict due to channel bar (aansibbling). Cilacap regency policies need to be realized by involving stakeholders in promoting the preservation of culture and typical agrotourism of Segara Anakan.*

**Keywords:** Mangrove, Local Wisdom and Coastal Village

### 1. INTRODUCTION

Segara Anakan Lagoon is a largest mangrove forest on Java and it has an importance role in the ecosystem life at the Segara Anakan Lagoon (Ardli in Raichel, 2008). Segara Anakan lagoon is a coastal area which covers 23836.5 ha and more than 9597 ha of which are filled with mangrove forests. Segara Anakan located in Cilacap regency, Central Java, Indonesia. This lagoon is located contiguous to the Nusakambangan Island and the Indian Ocean. Vegetation growing in the lagoon area is dominated by mangrove vegetation that have spreading pattern that extends from the edge of the river to the land formed mangrove forest. Habitat characteristics of mangrove species has been formed a pattern of the area known as the mangrove forest zone. This zone was formed because of the influence of salinity

waters, soaking period, and a period of tidal as a growing limited factor of mangrove species and sedimentation or silting in the mangrove forest area of Segara Anakan.

The existence of Mangrove forests, make lagoon asa suitable place for a wide variety of marine life such as fish, shrimp, and crabs toproliferate, forage and raise their children. Besides those ecological benefits, the lagoon also bring socio-economic impacts to fishing communities around. Segara Anakan inhabited by native inhabitants, who called as Kampung Laut residents. Its inhabitants are scattered in four villages named Ujung Gagak, Ujung Alang, Klaces and Panikel. Based on the socioeconomic survey conducted the Central Statistics Agency (BPS) and the Management Board Region Segara Anakan (BPKSA), the number of residents in Kampung Laut sub district reached 14,540 in

habitants. While the population projections based on the Cilacap Regency Regulation No. 6 of 2001 on Spatial Planning of Segara Anakan is only about 12,488 inhabitants. It is a source of "catastrophic" for the viability of the ecological Segara Anakan, where the use of natural resources threatened to be overexploited without taking into account its preservation. Most of native inhabitants' livelihoods are fishermen, while mostly newcomers cultivate farmland on the channel bar (*aanslibbing*) appear from sedimentation.

BPKSA-LPP Mangrove (2008), noted that mangrove species in the Segara Anakan forest area consists of various types with high levels of diversity. Forest formations dominated by mangrove which has seedlings and saplings structure (with the diameter less than 10 cm, height more than 1 meter) and having a bit rate of the tree structure (diameters of 10 cm measured from the cane root 20). Mangrove forest ecosystems act as a sediments trap and inhibit erosion so that it can protect other waters. Another function is as a protection for coastal areas from damage caused by waves and storms. Camille Brown (in BPKSA: 2008) divides the mangrove ecosystems into four domains, namely; (a) Sustainable production function such as producing fuel wood, charcoal, fish, shrimp, tannin, *nipa* (thatch palm), drugs and genetic resources. (b) The carrier and the regulator function includes protecting and preserving coral reefs, erosion controlling, absorbent and recycling human waste and other pollutants, preserving biodiversity, a place for migration habitat, spawning and nursery, supplying and regenerating nutrient. (c) Economic / conversion function includes recreation, habitat for indigenous peoples, rice farming, aquaculture and industry; and land using. (d) Information function includes religious and spiritual information, cultural artistic inspiration, educational and historical information, and science and technology development.

The development of Mangrove forest area has decreased every year. BPKSA (2008) data showed that mangrove forest area reached 15,551 ha in 1974, in 1978 was recorded to 10,975 ha, in 1994 was recorded to 8,975 ha and in 2003 it remained 8,359 ha. Studies conducted by BPKSA show that the reduction area of mangrove forests due to the conversion of forest areas into paddy fields, farms, settlements, and utilization of mangrove wood as a building material and charcoal raw materials for industry and others.

The very extensive mangrove forests attract investors to open massive fish aquaculture businesses. The investors rented land which owned by the government and the land that is rightfully claimed as the locals. As a result, many mangrove forests are cleared and become aquaculture area. Declining mangrove forest area are influenced also by the illegal logging by outsiders who used it for firewood, either for home or industrial usage. Increasing sedimentation of silt carried by several major rivers in Segara Anakan area make the channel bar (*aanslibbing*) getting wider/larger. This prompted the influx of immigrants to work on the channel bar into agricultural land. Therefore, a lot of mangrove trees are cleared to be used as paddy fields and settlements. The increasing number of migrants who settled in Segara Anakan then became a highly worrying. Based on the results of Regional Socio-Economic Survey (Suseda) in 2007 showed that almost 53.8% of the population Segara Anakan Area are migrants, mostly working in agriculture by working on the channel bar. Most of them consider that the mangrove is not important. They assume that mangrove forests are areas are "redundant" if it is not harnessed, so a lot of mangrove forest land then converted to cropland. A study conducted by Ardli (in Raichel: 2008) showed that the farmers were able to transform mangroves forest into agricultural land area up to 192.26 ha commonly per year. As a result, environmental degradation becomes unavoidable and led to decreasing the biodiversity quality and quantity. It also gives bad influence to the catch of the fishermen so they will trap in poverty. By taking logical consequences, eventually the fishermen use the ways that harm the environment in catching fish using a tool such as nets and traps.

Decreasing the number of mangrove forests had a great impact on the ecology and marine life of the village such as the reduction potential of the fish that live in the lagoon, the decline of the defense area, if at any time there was a big storm or tsunami and the increased intensity of erosion and salinity. In a view of socioeconomic, slowly but surely the income of fishermen on fish and shrimp catches declined due to their job only rely on marine catches and they are not able to utilize the channel bar due to lack of expertise to cultivate the land to agricultural use. While, the newcomers seemed to enjoy prosperity by utilizing the channel bar for agriculture. It can lead to potential

social conflicts due to seizure of arise ground which can be enlarged anytime.

## 2. PURPOSE OF WRITING

This study aimed to analyze about (a) local potential in the form of local wisdom in Kampung Laut Segara Anakan as social capital to embody the fishing innovation village in Segara Anakan Cilacap, Central Java, (b) create a model policy on the use of mangrove forests in the conservation and development of typical agro tourism in Kampung Laut Segara Anakan Cilacap.

## 3. METHOD

The method of the research is descriptive qualitative method (embeded research) by interactive analysis with three axes, that are data collection; data reduction and presentation; and the drawing conclusion with the content analysis of previous researches or studies, journaling and secondary data analysis.

## 4. RESULTS

### 4.1. Local Wisdom of Kampung Laut Segara Anakan Inhabitants as Social Capital to Support the Typical Agro Tourism Development

Economic life in Kampung Laut Segara Anakan depending on the catch and the season. When the season is good, fishermen can obtain maximum results fish. The fishermen who do not have boat should divide their catch by the ship owner with a ratio of 50: 50. While the division of labor ship 5: 1 with the ship's captain. Another economic life from Segara Anakan family obtained by being the fish monger including processed salted fish and some of them also work in the salted fish production sites. Due to family condition, many children playing on the beach fighting over the fish and finding scattered fish in the fish auction. Local inhabitants call these children as *alang* or *major*(lucky).

Analyzing residents' economic life, the cooperative also give loan fund for people as venture capital to open a ship workshop, training/courses to repair the ship and useful ocean science to increase

their earning from other sectors of the economy. The women attended the course to help the family income. The fishermen also provided about the handling of accidents at sea.

Kampung Laut fishing communities often hear the word *MbahJagaLaut* (The Older Sea Shephard). This name is very influential for Kampung Laut and surrounding communities because it has a very important history. *Mbah* was taken from a more mature or older. *JagaLaut* means the Sea Shephard.

Kampung Laut people believe that the presence of village surrounded by sea has so many shephards, one of them is *Mbah Jaga Laut*. As a form of gratitude for the peace of the sea in the Segara Anakan then on every 1st of the *Shura* or 1 *Muharam* (the first month in Arabic calendar), Kampung Laut people conduct *Sedekah Laut* (the sea offering ceremony)held on Friday Kliwon (one of the day in Javanese).

*Sedekah Laut* is an embodiment of a gratitude expression performed by Segara Anakan Fishermen Group. The ceremony was preceded by processions carrying offerings (*Jolen*) floated out to the high sea from Teluk Penyu Beach, Cilacap. *Jolen* paraded from the Cilacap Regency Hall toward Teluk Penyu beach accompanied by a procession *Jolen Tunggul* and followed by another companion offerings brought by participants dressed in traditional costume of Cilacap Fishermen (Agus Purnama, 2008).

On arrival at the Teluk Penyu Beach, the offerings (*jolen*) are then transferred to the fisherman's ship which has been decorated with colorful ornaments to dispose to the ocean in the small island called Majethi island.

*Sedekah Laut* started from the Third Cilacap Regent Tumenggung Tjakrawerdya IIIcommand. He ordered the elder fisherman named Ki Arsa Pandanarang Menawi to throw the offerings of other fishermen along the southern sea on Friday Kliwonin months *Shura* in 1875 and since 1983 it was appointed as a tourist attraction.

Thousands of people spilled out along the path through the *Sedekah Laut* procession. Carnival procession carried a *Jolen Tunggul* of Cilacap regency and some *Jolen* offerings from fishing groups. They were a group of fishermen Donan, Sentolokawat, Bakung, Pandanaran, PPSC, Tegalkamulyan, Lengkong, and Karang Kemiren. All of them were hand in hand.

These Jolen was brought to the TelukPenyu Beach on foot. On the way to accompany the procession of Jolen, Cilacap fishing communities also presents a number of art performances ranging from dance to other arts. Arriving at Teluk Penyu, Jolen was floated to the South Seas by using fishing boats that have been decorated. Of course the floating of Jolen event was being the main attraction for residents. Thousands of people swarmed the beach fighting over witnessed *Sedekah Laut* floating away.

Regent of Cilacap Tatto Suwart Pamuji said, this ritual must go on, despite the heavy rain. Therefore, an event held only once a year as an expression of thanks for the abundance given by the Lord. "Must keep running, as a thank you to God," said Tatto.

On the D - leve the highlight of the event, people from outside the city are already flocking to the Cilacap city, gathered on the Teluk Penyu beach. The crowdedness in this culture resembles the crowd during Eid. Pros Cons above *Sedekah Laut* is also happening in the community, where some of clerical (Islamic scholars) regard this ceremony as shirk (polytheism in Islam), even if it wrapped in a cultural label title. This is because the existence of offering which is dumped into the sea to starting reinforcements, something considered forbidden in Islam. However, this tradition is routinely continued as a tradition of the fishermen.

*Sedekah Laut* was preceded by a procession *nyekar* or pilgrimage to the Coral Coast Bandung (Majethi Island) southeast Nusakambangan conducted by indigenous leader of Cilacap Fishermen and followed by groups of fishermen and communities to plead with the Lord Almighty so that they will get abundant catches in the fish harvest and the fishermen were given salvation.

The other Kampung Laut tradition is called *asnyekar* ceremony is by taking auspicious holy water around the Majethi island according to legend as a place growing flowers Wijayakusuma. In the evening the event continued with the traditional art performances in each village by a group of fishermen that existing in the region.

Residents of Cilacap, Central Java, held a *Sedekah Laut* tradition, on Friday (07/11/2014). *Sedekah Laut* is a ritual which is held every year in Sura (Javanese calendar). The event starts on the Pavilion Wijaya Kusuma Cakti Cilacap

towards Teluk Penyu beach. Furthermore, the procession of the *Sedekah Laut* may be presented in the figure.

Beside *Sedekah laut* and *Nyekar* ceremony, there is also a ritual to bring auspicious holy water around the Majethi island which according to legend was a place where flowers Wijayakusuma grow. In the evening the event continued with the traditional art performances in each village by a group of fishermen are concerned.

The attitudes need to be implanted in the younger generation against the cultural values is: gratitude to God Almighty. With a sense of gratitude to Almighty God's creation, the younger generation will able to grow following the existing era. The benefits derived from the culture are: "Togetherness of any cultural activities, affection between people, and tolerance among fellow community".

Segara Anakan is a barrier that prevents the entry of people into the area Nusakambangan, so the island which covers 12 106, 43 ha has become one of the last heritage of coastal forest ecosystems and tropical lowland forest in Java (Root, 2001). Not only as a live place of thousands of biota species, there is also endangered species life in Segara Anakan waters; the typical dolphin called *wesut* (*Orcaellasp*), a close relative of the Mahakam river dolphins and Irrawaddy river dolphins in Myanmar. The population in Segara Anakan decrease due to changes in natural habitats, such as making the pier, mangrove deforestation, water traffic crowded increasingly, lack of feed resources, environmental pollution, and sedimentation (Sinar Harapan, 2003).

The process of sedimentation is the major requirement of mangrove ecosystems, in addition to the protection of the waves, the input of fresh water, the flow of tidal water and warm temperatures (Walsh, 1984). However sedimentation in Segara Anakan seriously threatening the existence of mangrove areas (Wijosudarmo, 1979).

## 4.2. Community Empowerment in Mangrove Forest Conservation.

### 4.2.1. Segara Anakan Carnival in the 71<sup>st</sup> Indonesian Independence Day Anniversary in Kampung Laut as an Effort to Support Mangrove Forests Typical Agro Tourism



The 71<sup>st</sup> Indonesian Independence Day Anniversary and Carnival in 2016 held at the Kampung Laut subdistrict, Segara Anakan. It was led by the inspector of the ceremony, the district head of Kampung Laut, Nurindra Wahyu, as the driving actor in empowering communities. Followed by the flag raisers, Proclamation and preamble of 1945 Constitution manuscript carrier, and all participants of the ceremony both civil servants, the general public, fishermen from 4 villages, students from elementary, junior high school, senior high school, vocational high school in Kampung Laut, IPB students who are conducting KKN (Community Service Program) in Kampung Laut, UI student who was conducting research for a thesis in Kampung Laut, Education Unit, Puskesmas (Community Health Center), PNPM (National Community Empowerment Program) standing on a boat floating in lagoon waters of Segara Anakan.

Indonesian Independence day ceremony and Carnival is deliberately carried out on the waters of Segara Anakan, in order reminded of the existence of mangrove forest in Segara Anakan which increasingly reduced due to sedimentation. Uniquely, ceremony participants dressed in costume and the boat carrying them decorated in such a way. They using colorful flags, the Indonesian flag, and other decorations such as *Janur Kuning* (young coconut leaves) (Satellite Post, 2016).

Nurindra Wahyu, as a Kampung Laut District Head, suggested that he encourage them to not only follow the ceremony, but also to follow the decorative boat parade held after the ceremony. The majority of people here are fishermen. We invite them to join ceremony at sea. "We are not only victorious on land, but also on the sea" said the District head.

Mujiono, as an actor movers of community empowerment in this activity, as Vice Chairman of the Parliament of Cilacap, told Satellite Pos, "The implementation of Indonesian Independence Day ceremony in this sea not only to warnings and growth the spirit of nationalism, but also in order to develop eco-tourism; mangrove forest in Segara Anakan. Therefore, the whole society is expected to participate to keep, care for, rehabilitate the mangrove management to avoid it getting shrink. It is expected that the next Independence Day ceremony held at the Segara Anakan. This is important in order to attract tourists that traveled in the Segara Anakan region. Thus agrotourism in Segara Anakan attract tourists

both foreign and local tourists because Segara Chicks have the hallmark of the Agro tourism, the existence of the mangrove forest "said Mujiono.

In line with the Deputy Chairman of the Parliament, Nurindra Wahyu, as a District Head of Kampung Laut added that it is planning to bring more tourists in the next years. Those events also will be used as an annual event in Kampung Laut travel destinations. For those reasons, the preparation needs to be done. Kampung Laut Segara Anakan agro tourism have a hallmark, the existence of mangrove forests. For that, the mangrove forest needs to be nurtured, cared for and maintained.

Therefore all parties, the fishermen, public residents, and government officials must work together to manage and monitor the presence of the mangrove forest. This is important not only attract tourists and improve the welfare of fishermen but also in order to preserve the environment for sustainability functions of living beings.

Based on the description above, a District Head of Kampung Laut and Deputy Chairman of the Parliament of Cilacap becomes the driving actor driving community empowerment in the 71<sup>st</sup> Indonesian Independence Day and in the management of mangrove forests as a tourist attraction in agrotourism.

#### **4.2.2. Krida Wana Lestari (Forest Conservation Activities) Group Movement as the Rescuers of Segara Anakan Mangrove Forest.**

In a flurry of Kampung Laut residents, there is a person who try to get out of trouble, he act as driving actor environment, especially mangrove forest management. The actor named Thomas Heri Wahyono, he was origin from Lempong Pucung Dusun (Part of village), Ujung Alang village. He who familiarly called Wahyonobegan a "green" action since 2001 and he is he chief of Dusun Lempong in Ujung Alang currently.

TB. Wahyono stated that "when I was active in the management of mangrove forests, the condition of mangrove forest around Ujung Alang was very badly damaged. It caused by previous investors who went to Kampung Laut Segara Anakan, clearing of mangroves for aquaculture fish. However, it lasted only a few years. The economic crisis of 1998 caused all the investors "bankrupt" and that investors left

Kampung Laut Segara Anakan with severely damaged mangrove forests condition". Starting from those condition, which was being his concern, he took his family back to green mangrove. "At first, my only purpose is make it green only. The area that was once green, now become hot due to the opening of mangrove forests. At that time, many people scoffed. Some of them said that I was less work, so what I can did was greening Segara Anakan. However, they scorn makes me even more firmly to continue working with the family, although it was considered as unreasonable and bizarre things". However, Wahyono ignoring the scorn. Finally, his effort giving a result.

As the activist community service in the mangrove area or environmental, he was initiative to establish a group called Krida Wana Lestari. The Group Movement has received a positive response from the local community, especially the residents of Ujung Alang village. This is because of the people sees mangrove planting activity as very good at all for the life of the community. Mangrove forest rehabilitation goes well, and the mangroves began developed. Furthermore, TB. Wahyono become an actor who could cultivate marine life such as crabs and milkfish. This leads people, especially fishermen, began to realize and understand that in fact the activity of rehabilitation planting of mangrove forests provide benefits towards aquaculture, crabs, milkfish and shrimp".

The driving actor of environment, TB. Wahyono, almost 8 years greening land area which has reached dozens of hectares (ha). Wahyono like getting a windfall when Pertamina Refinery Unit (RU) IV Cilacap began to look at his action and make his group as Pertamina partners group called as CSR. "I was so surprised, that Pertamina interested in providing assistance. The group changed its name to Patra Krida Lestari. Frankly, with their guidance, then the action of greening more spacious and has now reached 30 ha," said TB. Wahyono who became chairman of the group.

Furthermore TB. Wahyono revealed by experience, cultivate crabs and fish in an area that overgrown with mangrove was well. "I have tried farming milkfish and crab. The results were very good. For the 0.5 hectares of land, for example, is able to produce three hundred pounds of fish. If it sold it will make money around USD 4,800,000.00.

Whereas the venture capital was only Rp 600.000,00. Similarly with the crab, the results are able to reach Rp 3,500,000.00. If the environment is not reforestation with mangrove, it was impossible to get a result like that." said Wahyono. Wahyono was also awarded an Environmental Pioneer Actor in Central Java in 2010 and Coastal Rescue Actor by the Ministry of Marine and Fisheries in 2011.

TB. Wahyono not only invite people to farming in mangrove areas, but he tried to breed all types of mangrove plants in 2016. Based on the books he read, at least 35 species of mangrove plants there. Now, he has been able to make as many as 20 types of mangrove seedlings. "Luckily also, in the middle of September, Pertamina RU IV Cilacap building Mangrove Conservation and Indonesian Germplasm Study Center in Ujung Alang village and inaugurated by Environment Minister at that time. Thus, it show that stakeholders such as Pertamina and the central government is very concerned at Wahyono and group efforts in the environment field, particularly in mangrove conservation.

According to TB. Wahyono, not only Patra Krida Lestari who play a role mangrove conservation, many mangrove experts imported from Jenderal Soedirman University (Unsoed), Purwokerto and Institut Pertanian Bogor (IPB), Bogor. "I expect this conservation center will give the better impact, so that people around Kampung Laut and Ujung Alang will preserve the mangrove. Therefore, sustainable mangrove bring sustenance. Environmental conditions today are quite good and can be a place of shrimp farming, milkfish and crabs and other marine life, which resulted in his efforts. Thus, the economic conditions of society, especially fishermen will increase, and one side of the environment can be maintained both quality and quantity.

Attention to the effort of Wahyono as an environmental actor who was very concerned about the mangroves, then District Head of Kampung Laut, Nurindra Wahyuhope with the environmental movement in Kampung Laut, it will also increase the degree of local residents economy. "it was not by clearing mangrove for sale, but instead greening the mangrove to be used for cultivation. In addition, in the future, by the presence of mangrove research center, we hope it will not only become a research center and tourist sites of knowledge, but also make it as Segara Anakan Mangrove laboratory. It is

expected to be a place of worldwide scientists study.” said Nurindra.

#### **4.3. Policies Model of Mangrove Forest Utilization in Segara Anakan in the Conservation and the Development of Kampung Laut Segara Anakan Typical Agro Tourism.**

Related with the efforts to manage Kampung Laut region and mangroves in SegaraAnakan, The Ministry of Research, Technology and Higher Education (Kemristek DIKTI), applying vision in the year 2015 to 2019 is ""Realizing The Quality of Higher Education Science and Technology and Innovation And Ability to Support Market Competitiveness "(Yuliato, 2016). This vision is as a follow up to the President Joko Widodo Government Vision and Mission in implementing the wheel of his reign, with the maritime program priorities. This program is expected to improve the fishermen's productivity. Therefore, Maritime Coordinating Ministry has a program called as a coastal villages model, while the Ministry of Research, Technology and Higher Education (KemenristekDIKTI) together with the Ministry of Public Works (PU) has a program to create a model of the application of fishing innovation village of Kampung Laut and Segara Anakan. The program is expected to be implemented in 2016 and in 2019 (at the end of the Government Jokowi) will form of 1,000 fishing innovation village in 1000 days or 3 years.

The Ministry of Research, Technology and Higher Education; Ministry of Public Works and the Ministry Maritime, agreed to appoint Regional District of Kampung Laut Cilacap well known for the mangrove forest as a model of coastal villages and the model application of fishing innovation villages, it is necessary to do social engineering in community empowerment. The development program in Kampung Laut has already existed, but the project seems to be less successful, due to lack of getting a response from the community. Therefore, it would need the active participation of the residents in Kampung Laut based on the abiotic and biotic environmental conditions, socio-economic culture and traditions that exist in Kampung Laut (local wisdom).

The government is obliged to preserve the ecosystem of Segara Anakan. Therefore, Cilacap regency issued Perda (Regional Regulation) No. 6 of 2001 on Spatial Planning Region SegaraAnakan and followed up by Perda (Regional Regulation) No. 28 of 2001 on the Establishment of the Organization and Working Structure of the Area Management Board (BPKSA) Segara Anakan. BPKSA is a regional self-financing institution which has the task and the principal functions to manage Segara Anakan Region, especially in mangrove forest preservation towards the establishment of a tourist awareness village model and fishing innovation village. (Agus Purnama, 2008).

The steps taken to save mangroves in Segara Anakan has been done by BPKSA and related agencies. One of them is the replanting of mangrove trees in the damaged forest area. Program implemented in 2002 is trying to reforest 1,125 ha of forest area by planting mangrove seeds. Actually, the program involves the local residents, but in practice, it is unable to integrate and synergize with the fishermen's live. This happens because the government is more top-down and did not empower the residents' active participation. The weakness of mangrove planting program is they do not pay attention of forest sites that used. The land use is the right of adat (customary) communities for generations. So there is concern and fear among the people that they will lose their land. That is why the community response was lacking.

Actually, mangrove forest conservation activities are not necessarily handed to BPKSA, but there are still relevant institutions, such as state-owned forestry firm Perum Perhutani, Nusakambangan Prison, Kampung Laut district, village authorities, and local communities. However, there is no good synergy among those institutionals, as if all of them are working alone. Even an assistance projects of the International Donor Agencies (ADB) has not been able to solve the complex problems in Segara Anakan. Segara Anakan problem are simply includes two things: the institutional problems and problems of social capital wealth. Institutional problems characterized by a lack of synergy among government institutions and maze policies implemented. One of cases when the Cilacap government established that Segara Anakan is a conservation area that is protected from human exploitation activity. However, in the lower level

(village authorities) became a facilitator of many channel bar selling and renting processes with a very cheap price. Most buyers are migrants who want to utilize the channel bar into agricultural land.

The problem of local wisdom that belongs to social capital is also very worrying. Local fishing communities do not have the values of local wisdom (indigenous knowledge) that able to provide direction and guidance on how the society preserving and conserving the ecosystem in Segara Anakan. It simply said that even Segara Anakan residents have a high awareness of the importance of mangroves for the environment but it cannot afford them to be more aware to the existence of mangrove forests. This is indicated by the apathy of people who did not do anything when knowing the number of mangrove forest illegal logging are mostly done by people outside the area Segara Anakan (Agus Purnama, 2008).

## 5. CONCLUSION AND SUGGESTIONS

Residents' Local wisdom of Segara Anakan Kampung Laut, not only showed by *Sedekah Laut*, but also by *Nyekar* ceremony. It is implemented by taking auspicious holy water around the Majethi island which according to legend is a place where flowers *Wijayakusuma* grew. In the evening, the event continued with the traditional art performances in each village concerned Fishermen groups. This is a social capital for cultural preservation and conservation of mangrove forest. It will attract tourists to visit the typical agro tourism Kampung Laut Segara Anakan. Attitudes need to be instilled to the younger generation towards the cultural values is gratitude to the Almighty God. It is very important for young people today and it will continue to follow the development of the existing era.

Suggestion on policies that can be taken by the government in this case BPKSA is as follows: (a) performing control over the entry and exit of migrants to the Segara Anakan and also control the rate of population growth in order to prevent a population explosion and provide sufficient understanding to them about the importance role of mangrove forests for the survival of the Segara Anakan ecosystem. (b) conducted intensive institutional synergy with relevant institutions and also with the local communities, so they can be united to conserving mangrove forests in Segara

Anakan Region. (c) instill institutionalization values to the local fishing communities which able to strengthen the residents' capacity of social capital in order to be more concerned about the preservation of forests through a more egalitarian approach. The approach can be done through bottom up community-based management approach.

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