

COASTAL COMMUNITY PARTICIPATION IN *KELURAHAN* SUKOLILO, BULAK, BASED ON LOCAL ECONOMY

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ABSTRACT

Kelurahan Sukolilo, Bulak Settlement is an area of fishermen settlement with great potential of resources such as fish and sea cucumber. Kelurahan Sukolilo also well known as Prominent Kampung in fish processed products. Despite having a great potential in marine resources, most of the fishermen still live in a low environmental and economic condition. There should be effective environmental management in coastal area so the fisherman vulnerability can be reduced through a criteria of developing coastal area that is able to accommodate the fisherman economic activities. The researcher will apply community based development in developing coastal area criteria. In this case community-based development approach needs to be developed in the management of coastal areas, especially for the improvement of the environmental quality. This is because the coastal characteristic and resources are very complex and diverse, so in the coastal area management should involve the local community directly. Community based management shows the importance of community participation in development planning and implementation. This research was in form of qualitative research, data sources obtained by primary and secondary data. Primary data were collected through observations, visual documentations and interview with the fishermen and fish processors. Secondary data were obtained from literature and theory. Research results showed that level of community participation that need to be done in the development process using active participatory. Active participatory should be done through partnership and delegated power level to accommodate fishermen and fish processors activities and support sustainable environment. Co-working space for inhabitants is needed to accommodate community activities related to water and odor and drying process and to create area to socialize.

Keywords: Coastal area; local economy; community participatory.

INTRODUCTION

Coastal region is an important region in terms of the various planning and management perspective. The transition between the land and the sea in coastal ecosystems has formed a diverse and highly productive and provide tremendous economic value to human. Along with population growth and increasing of socio-economic activities, the "value" of coastal areas also continue to grow.

Smith and Doherty (2006) say that sub-urbanization in the city coastal area at least can cause two kinds of pressure: (1) 'direct' pressure occurs in life environment as the impact of coastal establishment, and (2) continuous pressure as the impact of developing city area like domestic and industry wastes. Such pressure occurs in the city coastal area gives impact to the enhancement of poverty in the city coastal area since the parameter of poverty today is related to not only the income level but also the vulnerability and insecurity in which poor people are more socially, economically and environmentally vulnerable (Kulidwa *et al.*, 2008)

Coastal area is an area that has the natural potential in marine and fisheries sectors which is often

used as a driving factor for community local economy. The current economy trend shows that community economic activities is expected to become sustainable economic activity that can improve community local economy with the availability of resources (Rustiadi, 2003). Economic growth must complement environmental conservation in a way that meets present needs without compromising future generations quality of life: so the economic growth in the coastal area can work well and continuously.

Multidimensional poverty and its relation to social vulnerability remain happen in fisherman community (Neiland & Bene, 2004), especially in fisherman or production-unit household level. This level is the smallest unit or level in a fisherman community system as the part of household population in coastal area. Fisherman household is often known as those who live in crowded condition, with limited access to social services, low level of education, and do not have skill as well as main asset, especially land (Adrianto, 2007). Such conditions also occurred in Surabaya fisherman community that vulnerable to the attack of social, political and economic changes, as well as the fishermen's inability to counter capitalist intervention, the presence of

stakeholder. Formerly fishermen settlement located around Suramadu bridge but in Its development the fishermen village spread around the district of Bulak. Despite having a great potential in marine resources, most of the fishermen still live in a low environmental and economic condition.

Based on problems occur in coastal area related to fisherman poverty, the researchers here assume that there should be effective environmental management in coastal area so the fisherman vulnerability can be reduced through a concept of developing coastal area that is able to accomodate the fisherman economic activities. The researcher will apply community based development to develop coastal area. Community Based Management (CBM) is one of approach to natural resource management, which put the knowledge and awareness of local communities as a basis for management. Community-based management can be defined as a system of natural resource management in some place where the local community actively involved in the management of natural resources (Nikijuluw & Naamin, 1994).

THEORITICAL REVIEW

Sustainable Development for Coastal Area Management

World Commission on Environment and Development (WCED) is the first that initiate about concept of Sustainable Development (Sustainable Development). Sustainable development itself is one that meets the needs of the present without compromising the ability of the future generations to meet their own need.

Bob Walter (1992) explains that some of these below principles can be applied in creating an environmental friendly community in local scale:

- Protect, preserve and restore the natural environment.
- Establish true-cost pricing economics.
- Support local agriculture and local business products and services.
- Develop clustered, mixed-use pedestrian oriented eco-communities.
- Utilize advanced transport, communication and production systems.
- Maximize conservation and develop local renewable resources.
- Establish recycling programs and recycled materials industries.
- Support education for participation governance.

In the application of sustainable development principles to overcome the existing problems,

increasing local economic is a priority. Priority in improving local economy is due to the study area has a great economic potential in fish and sea cucumber industry. Improved local economy is expected to increase community welfare. Harbinson & Myers in Education, Manpower and Economic Growth: Strategies of Human Resource Development (1965) state that: In the final analysis, the wealth of a country is based upon its power to develop and to effectively utilize the innate capacities of its people.

Referring of these assumptions in anticipating implementation of the regional autonomy, local people who have the ability to effectively utilize natural resources for the local welfare are needed. In this case community-based development approach needs to be developed in the management of coastal areas, especially for the improvement of the local economy. This is because the coastal characteristic and resources very complex and diverse, so in the coastal area management should involve the local community directly.

Community Participatory

Community Based Management (CBM) is one of the approaches to natural resource management, which put the knowledge and awareness of local communities as a basis for management. Community-based management can be defined as a system of natural resource management in some place where the local community actively involved in the management of natural resources (Nikijuluw & Naamin, 1994). Community based management shows the importance of community participation in development planning and implementation.

Community based development suggests the importance of community needs for design development. Arstein (1969) states that the depth level of community participation will lead to community empowerment. The level of community participation is divided into three, namely:

- a. Non participation/passive participatory
At this level, the community is not involved in the process of development program.
- b. Tokenism participation
In this level, community is directed to make it look as an active participant, however when examined more deeply the community does not participate in development process.
- c. Citizen power/Active participatory
At the level of active participatory, community start to become a subject in the development process. Community people already know and understand about their community needs.

The level of active participation consists of the following:

- Partnership
Community serves as decision makers in exploring idea based on community exact condition.
- Delegated Power
At this level, community is decision maker because the community already able to independently carry out the development process.
- Citizen Control
Society acts as subject to decide on what kind of development they need, also control the construction process.

METHODOLOGY

This research was qualitative in nature. Qualitative research is a research that research something in its natural setting, trying to understand, or interpret, in terms of the meaning given by the society (Groat & Wang, 2002). The research was conducted in Sukolilo, Bulak as the area of fishermen settlement with great potential of resources such as fish and sea cucumber. *Kelurahan* Sukolilo is also well known as Prominent Kampung in fish processed products. *Kelurahan* Sukolilo, Bulak is located in coastal town of kenjeran beach, which consist of 8 alleys.



Fig. 1. The Location of Study at *Kelurahan* Sukolilo, Bulak (google earth)

Economic level of the population is still low due to the traditional processing, and their processing activities do not concern about the sustainability of resources and environment. In this study data sources were obtained by primary and secondary data. Secondary data were obtained from literature and theory for primary data was conducted through interview, visual documentation and direct observation that can be described as follows.

Interview

Interviews are a means of collecting data used to obtain information directly from the source. Interview used in this research was an unstructured interview. Unstructured interview is an interview that the researcher use the free interview guide that had been arranged systematically. Interview guide form the outlines of the problems that will be asked. The interviewer should encourages the respondents to speak at length in order to explore broader perspective of each respondents response to their circumstances. Inhabitants testimony approaches offer great opportunities to complement physical and visual data. In this research, unstructured interviews were conducted to collect information about the activities and conditions of the settlement to obtain the issues contained in these fishermen settlement related to their economic activities and environment. These problems were then analyzed in order to find solutions by using community based development approach.

Visual documentation

Visual documentation in this research include a series of photographs that describe settlement condition and activities related to fish and sea cucumber traditional processing. Photographs of open spaces, streets and other part of the settlement were also taken, especially fish and sea cucumber processing activity were presented. The aim was to create a detailed record in key spaces and activities pattern occurred inside the fishermen house and settlement. Images provided were useful in interpreting plans, recalling places and activities.

Observation

Bungin (2007) suggests some forms of observation, namely participant observation, unstructured observation and groups. Observations used in this study were participant observation in which the data collection methods were used to collect research data, while the researcher was involved in everyday informants. Expected data through observation of participation are problems of physical, social and economic issues faced by fishermen in the settlements. In the collection of primary data through interviews and observations, the first step was to determine the samples to be taken as an object of research. According to Spradley (1997), samples taken in qualitative research are in the form of a social situation or social situation that consists of three elements; place, players (actors), and activity.

In relation to the context of this study, the three samples can as follows:

1. Place: Fishermen settlement in *Kelurahan Sukolilo, Bulak*.
2. Players (actors): Inhabitants of settlement that make living as fishermen.
3. Activity: Activities of inhabitants that are related with their economic activities, especially in traditional processing of fish and sea cucumber

RESULTS AND DISCUSSION

Economic Activities in *Kelurahan Sukolilo, Bulak*

Kelurahan Sukolilo is known as a Prominent Kampung in Fish Processed Products, where most of the inhabitants works as fishermen and fish processors. The domination of profession as fisherman and fish processor given particular character in this settlement.

Most fishermen are men, yet the fish processors are mostly women as the processors of seafood into chips and dried food. Economic level of the population is still low due to the traditional processing, and their processing activities merely are focused on fulfilling the economic needs and ignoring about environment condition in the settlement. Seafood products are not only sold to local markets but also to supply demand outside the city. For local markets, seafood products are sold through stores along the highway.



Fig. 2. Stores Along the Highway

According to Utami & Antaryama (2014), fish processors activities in *Kelurahan Sukolilo* can be categorized as common and particular production activities. Processes include in each category can be described in Table 1.

Table 1. Common and Particular production Activities of Fish Processors in *Kelurahan Sukolilo*

<i>Common Production Activities</i>	<i>Particular Production Activities</i>
Receiving raw material	Dredging sea cucumber egg
Washing	Stomping the raw jellyfish
Arranging the material	Frying with sand
Drying	Frying with oil
Stocking up fish product in storage	
Saving and maintaining the production utensils	

Source: Utami et al., 2014

Unfortunately wastes from seafood proces and domestic waste are directly discarded to the sea and there is no installation of wastewater treatment inside the settlement.



Fig. 3. Sea Used as Disposal Area

Spatial Usage inside the settlement

Inhabitants in *Sukolilo* do not have particular area for seafood production process, they do both domestic and production activities in their huse and surroundings. Meanwhile, houses inside the settlement are very small sticking together with other houses. Many activities, space, function, and space limitation lead to space conflict. Inhabitants search for solutions to resolve the space conflict by using their resources or anything they are able to afford independently. Two story buildings provide increased flexibility as there is an opportunity for vertical distinction between HBE and domestic activity (Kellet & Tipple, 2000). Some inhabitants in the settlement use the first floor for production and second floor for domestic needs and the. However most participants do not have story buildings.

Most production activities are done in open space due to the water and fish smell. The lack of

space for economic needs encourage the inhabitant to occupy pathways, their neighbor's open space and also free space above to conduct their production activities.



Fig. 4. Space Conflict in the Settlement

Drying process requires the largest area inside the settlement. Utami & Antaryama (2014) claim that different characteristics of fishermen house lead to different drying systems. For houses that are closer to the road, the characteristics of their housing area include: small houses and houses that stick with other houses at the back and sides. They make the production process in front of their houses or on pathways. Sometimes they dry the fish with racks down the side road, pathways (ground level drying) or hang it up above the pathways so people will still be able to access the pathways below (raised rack drying). For house which near to the beach, they have a larger open space. They do the production in front of their houses, but still in their own land. Sometimes, they do some production processes on the pathways. For drying system, they also have an innovation, which is raised rack drying system. With that system, they can still do production below the drying racks. However, seafood processing and drying in a public area interferes with the circulation in the settlement and is not hygienic for the seafood products.

Production activities that are done inside the house includes frying dried products and storing the products. Most inhabitants use part of their living and dining room for product storage, meanwhile frying process is usually done in kitchen for small houses. Meanwhile, for inhabitant who have bigger land, they use outdoor kitchen separated from their house to fry the dried products.





Fig. 5. Seafood Drying System



Fig. 6. Storage inside the huse

Coastal Management based on Local Community

Based on the observations results, economic potential of the community is unfortunately not accompanied by well management of environment. In improving the quality of environment, efforts that need to be done should be based on the principles of sustainable development and maximize local resources that exist. The steps to develop ecologically-based environment must be able to balancing the operational needs and also concern about energy saving and efficiency. Thus, the economic growth that happen is positive economic growth that does not harm the environment.

Sustainable economic development in coastal locations can be formulated into a community-based economic development by using a subjective approach. Subjective approach that puts human as a subject that has the flexibility to take the initiative and act according to their needs. Then, the proposed plan can be done to improve the local economy and business settlements are as follows:

1. Participatory level: delegated power
Creating co-working space for fish processors. Co-working spaces are in form of open space located near to the beach. Community can rent the space from inhabitants who have large space. Co-working space accomodate fish processor activities that are related to water and odor such as

receiving raw material, washing, arranging the material to drying rack.

Drying process can also be done in this open space, with raised rack system so that the area below the drying rack can be used as work space.

To overcome the obstacles encountered during the rainy season, polycarbonate roofs are added on top of the raised rack to keep the seafood products dry.

2. Participatory level: delegated power
Providing Wastewater Treatment Plant (WWTP) for treatment of waste water from the fish and sea cucumber processing industry.
3. Participatory level: partnership
Educating and creating public awareness to maintain the cleanliness and preservation of the ocean for marine products sustainability. The establishment of the environment cadres from the settlement is needed to move other people in keeping the environment clean.
4. Participatory level: partnership
Creating local fishermen institutions that facilitate cooperative production and marketing activities. So it can improve the quality and expand the marketing of processed products of fish and sea cucumber.

Coastal communities depend on healthy ecosystems for their economic life. Population growth, well-managed resources processing and development that concern about the environment can compromise the health and integrity of coastal ecosystems and, in turn, the economic sustainability of coastal communities. In *Kelurahan Sukolilo*, the role of the inhabitants in creating clean and healthy environment is still limited in the form of community service in the neighborhoods.

People's aspirations, which are adapted to the purpose and objectives of this research, are expected to be achieved. Therefore, the proposed plans that need to be done in improving neighborhoods quality as clustered, mixed-use, pedestrian-oriented, ecological communities are as follows:

1. Participatory level: delegated power
Improving street quality by repairing damaged pavement and providing pavement in form of paving block on street that do not have pavement yet.
2. Participatory level: delegated power
Providing facilities in form of hygienic public toilets with septic tanks and disposal area that can be used by the inhabitants of the settlement. By these facilities, the inhabitants are expected to keep the environment and coastal area clean.

3. Participatory level: delegated power
Greening the settlement corridors using plant-canopy. The use of green canopy can make the air cooler and beautify the settlement street.



Fig. 7. Solution for Green Canopy inside the Settlement

CONCLUSION

To conclude, there are steps to be done in context to improve local economy of coastal community in Kelurahan Sukolilo, Kecamatan Bulak. In order to improving the community local economy, efforts that need to be done must be based on the principles of sustainable development and maximize local resources that exist. The steps to develop ecologically-based environment must be able to balancing the operational needs and concerning about energy saving and efficiency as well in order to create positive economic that does not harm the environment. These steps can be done in active participatory, which is intended to make the community have the awareness to keep and grow their sense of belonging to the development result. Active participatory is done through partnership and delegated power level to accomodate fishermen and fish processors activities and support sustainable environment. Co-working space can be created to overcome space conflict inside the settlement, thus accommodating community activities related to water and odor and drying process. Co-working space also creates open space for community to socialize with their neighbors and maintain the inhabitants social bonding

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