Sustainable tourism development based on local participation: Case study on Dalegan District for the East Java tourism industry

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Abstract. Coastal areas and small islands has considerable management potential, however several studies have shown that these conditions do not make the management of coastal areas in Indonesia optimal. The purpose of this research is to try to answer important issues regarding how sustainable tourism development affects people's lives and livelihoods. This research presents debates in sustainable tourism development by paying attention to the concept of sustainable development and investigating the main problems of developing sustainable tourism development. The methodology used in this research is qualitative by using focus group discussions (FGD) with 50 people in the village of Dalegan to obtain data from important informants. The results of the research show that the lack of attention to the environmental sector in the village makes coastal tourism objects less attractive to tourists. The development of local communities must also go hand in hand with sustainable tourism development, the relationship between government and coastal managers in Dalegan also needs strengthening. The perception of visiting experiences reinforced by the presence of local communities is essential to increase the number of tourists to create a conducive economic climate. We suggest that the socio-economy should coexist with environmental sustainability and a sustainable tourism development framework must be created to address heterogeneity and complexity in a regional scope.

1. Introduction
Coastal Areas have considerable management potential, however, several studies have shown that the conditions for managing coastal areas in Indonesia are optimal [1]. Development of the coastline is one of the ways to use development in accordance with Indonesia's geo-oceanography, namely marine and coastal development [2]. The utilization of coastal water space and small islands must be able to be managed for the benefit of the wider community [3]. Moreover, sustainable tourism development has not been explored much, so its utilization is still not optimal. Failure to create and think about the sustainability of tourism will have a significant impact on the utilization of the management potential of existing tourism resources [4], for this reason the creation of sustainable tourism development needs to be mapped in order to achieve the desired results [5].

White sand tourism in Dalegan Village, Gresik District, East Java Province is one of the coastal tourism that has high development potential, but has decreased the number of visitors in 2012 with 459,862 visitors, in 2013 as many as 310,522 people [6]. According to referring to the tourism data of the Gresik Regency Government, this beach has never been managed as a place to play for children, so it is gradually being managed by the village.

The principle of sustainable development has been launched by the United Nations in the context of Sustainable Development Goals (SDGs) [7]. Sustainable development must be applied in various
industrial sectors, including the tourism industry sector [8]. This sector contributes to high environmental damage if it is not managed properly so that it is necessary to develop and manage that prioritizes environmental principles.

2. Materials and Method

Our research was conducted in Dalegan village, Panceng, Gresik area. The area of this village is 772.281 Ha. Dalegan Village consists of 4 district, namely Mulyorejo, Wonorejo, Shoberoh, and Larangan. We focused our research in Dalegan beach and Dalegan village, due to our research want to know “how” the processed sustainability tourism development in Dalegan beach.

The methodology used in this research is qualitative by using focus group discussions (FGD) with 50 people in the village of Dalegan to obtain data from important informants. We used integration of three theories namely stakeholder theories, Social network analysis, and Actor Network Analysis (ANT).

3. Result and Discussion

This paper used sustainable tourism development framework to know and discussed social structures and identifying the connections between stakeholders. Using integrated stakeholder theory, social network analysis and actor network theory, this research try to exploration the root problems and the practical framework for sustainable tourism development (Figure 1). Dalegan tourism is one of the tourism place in Gresik, which held by governance village of Dalegan.

![Figure 1. A framework for integrating stakeholder theory, social network analysis, and actor network theory](image)

To build sustainable tourism development we must use integration from three approaches, the first is stakeholder, actor network theory, and social network analysis. The integration of three theories help to explore the changing power of stakeholder involved in a network [9]. Tourism industry in Dalegan is beach tour with wave, soft white and white sand. The sustainability of this tourism will depend on the sustainability of the environment around this tourism environment.
Integration between three theories can explain the structure of social and network in sustainable tourism development in Dalegan village. The beach, which was officially opened in 2007, has many advantages, including natural scenery, white sand, boat tours, swimming and culinary activities. Communities in the coastal area of Dalegan need creative-innovative community empowerment and empowerment programs that are able to form an entrepreneurial forum using technology and non-technology by relying on commodities or local wisdom.

3.1. Stakeholder analysis
Stakeholder analysis looks at who is responsible for and has a direct relationship with related parties at tourist sites. Stakeholders are parties who have authority and authority against business continuity. In white sand beach tourism, the stakeholders involved is presented in Figure 2.

![Figure 2. Stakeholder analysis Dalegan tourism industry](image)

According to the Government Regulation of the Republic of Indonesia Number 50 of 2011 concerning the National Tourism Development Master Plan for 2010-2025, the definition of tourism, namely all activities related to tourism and are multidimensional and multidisciplinary that appear as a manifestation of the needs of everyone and the local community, fellow tourists, the government, local government, and entrepreneurs. The local government plays an important role in the growth of tourism in the region, in this case the role of the Gresik regional government has not been seen as optimal for sustainable tourism development. Increasing human resources of stakeholders affects the development of Dalegan natural tourist areas.

3.2. Social network analysis
The social structure of local communities in the tourist area consists of food and beverage traders, smoked fish traders and several boat rental traders (Figure 3). The majority of local people themselves work as farmers and fishers, even though the existence of this tourist area can be an opportunity for the surrounding community to be able to explore the potential of their area. When conducting FGD with 50 local communities, some of the communities have become food and beverage traders, but there are still people who still do not have a job because they are only housewives. The participation of the local community can be seen from the interaction of the community with beach tourism managers who want to help local tourists when they need help. Types of participation that are usually carried out by the community around the attraction are:
1. Participation of ideas
2. Participation of personnel
3. Participation of donations / assets
4. Social participation

Figure 3. Social network analysis  Dalegan tourism industry

Four participation activities that are usually carried out by local communities in the Dalegan village above are activities carried out in a sustainable manner. Community participation in the fruit of thought can be seen from several ideas proposed by the community that are trying to be applied to tourism in the area. For example making parking lots that was previously limited, and then expanding it to make the car capacity more and optimizing villagers to be able to sell around tourism because it is to advance the community economy around. Workforce participation is also carried out by working together and carrying out village cleaning activities every Sunday, where people are used to gathering. The length of time the village community lives in the Dalegan village area makes many residents participate in building the Dalegan village with donations or assets and social activities.

The social structure is also influenced by the customs or culture of the people in the specific study area which authenticity must be protected according to law. The life of the community in the study area is a traditional community-type society, which is generally mechanically organized, which prioritizes community rather than organically organized rational society. People tend to prioritize the spirit of togetherness to create social harmony. Therefore, they always try to avoid destructive behaviors that are considered to lead to social disintegration. The community attachment to Islam is marked by the number of mosques and Islamic boarding schools, and this proves that the influence of Islam is very strong and rooted in this area. Thus, that conflict resolution or disintegration can be through religion.

The typology of leadership that develops in the interior tends to the type of formal leadership such as the lurah and its apparatus, although it also respects and respects non-formal leadership such as: figures / religious figures, monitoring and protection tools for the community. The community must get the multiplayer effect from the Dalegan beach tourism.

3.3. Actor Network Theory (ANT)
The existence of White Sand Tourism in Delegan Village made the people of Delegan Village need to carry out mapping and strengthening the community capacity in the study area. The beauty of Dalegan Beach, which is a popular beach tourism in the Pantura area has an attraction to be visited by tourists
who need recreation, especially in the Gresik Regency and its surroundings, this is something that is interesting to see for tourists.

ANT maps the actors and actors involved in Dalegan tourism. ANT is a real way to explore relational relationships in networks so that in this case ANT also acts as a method [10]. In contrast, ANT is a way to explore truly relationships in networks. ANT makes human and non-human actors also play an important role and the same treatment in ANT. ANT assumes that all entities in the network can and should be described in terms of the same or the so-called generalized symmetry principle. So that in the ANT analysis above, it is hoped that the network that is built in the study area can be described [11]. The actor network formed from Dalegan beach tourism is shown in Figure 4. The strong relationship between the village head and the coastal manager makes tourism development appear to be dominated by these two actors. Society has influence on development, which is also dominated by several groups of people.

![Figure 4. Actor network theory Dalegan tourism industry](image)

The actor network was built when the Dalegan village head had led the village for 3 periods, the social dynamics that occurred in the village made some groups feel isolated and some did not really care about village development. The relationship between human actors and non-human actors affects the pattern of human movement in the Dalegan area. The influence of non-human actors can be seen from the concept of trading and environmental maintenance that occurs in the study area.

4. Conclusion
Overall, three theories that mention before must be integrated to know and understanding of diversity, relations, network and dynamic situation in the field of study. To create sustainability tourism development we must understand various patterns of stakeholder relationships, social condition of society and the relationships between actors (human and non-human). Find understanding and meaning from the third combination and trying to connect with environmental aspect is the best way to create our sustainable future for our next generation.

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