

## Collaborative Innovation Process in The Forest Area Management in Cijambu Village, Sumedang Regency

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### Abstract

The forest area which located in Cijambu Village, Sumedang Regency is managed through collaborative innovative mechanism. To maintain the forest sustainability, the forest area is created to be ecotourism site namely Cihorang Tourism Area. By using a qualitative method, this paper aims to describe collaborative innovation process in Cijambu Village. The data which was collected by using observation, literature study and in-depth interview, indicated that there are some actors involved in Cihorang Tourism Village management, namely *Perhutani*, a State Owned Enterprise which has authority to organize the planning, management, concession and forest protection; *LMDH*, a forest village society organization, investor and village government. The roles and responsibility assigned for each actor in the Cihorang Tourism area management are adjusted by their capabilities and capacity. There is empowerment process among the actors through knowledge, information and idea sharing. This sharing process is essential in the tourism village improvement for it can generate a sense of ownership among actors involved. The collaborative innovation process is successfully achieving its goals, that is preserving the protected forest area, becoming the main tourist attraction in Sumedang Regency and also increasing the revenue for Cijambu Villagers. The success factors driving the collaborative innovation process in Cijambu Village are the high interdependence among the actors; the high level of the mutual trust; agreement on the mission; and significant gain from the innovation. Meanwhile, potential factors that inhibit collaborative innovation process are inter-organizational barrier and organizational barrier.

**Keywords:** collaborative governance, innovation, tourism area

### INTRODUCTION

This paper aims to describe the collaborative innovation process in forest management in Cijambu Village. The existing forest management in Cijambu Village is conducted innovatively. This forest is used as an ecotourism object named Cihorang Tourism Area. The management of this forest area is conducted by several actors in a collaborative way. Forest area management by using collaborative innovation model successfully achieved its goals. Forest area is preserved and community in surrounding get the economic benefit from this ecotourism object.

Forest is an important resource for human life because forest is able to produce goods and services as well as to maintain environmental sustainability (Steinlin H 1988) as quoted by [1]. Along with the growing number of human population and various needs, the quantity of forest is decreasing. Since 1967, the government

classified the type of forest in Indonesia into protected forest, conservation forest, and production forest [1]. In Law number 41 of 1999 concerning forestry, it is mentioned that production forest is a type of forest with the main task in producing forest products.

Nowadays, several production forests in Indonesia are not only produced various forest products but also used as ecotourism objects. Hadinoto (1996) stated that ecotourism is a type of tourism activity that able to utilize the authenticity of natural environment with the interaction of natural environment and recreation activity, conservation, production, community and tourists [2]. Several production forests in Indonesia that used as ecotourism area are spread in Banten, West Java, and East Java Provinces. Ecotourism activity integrates tourism activities, conservation and local community empowerment. Therefore, local community can participate and get the benefits of these tourism activities through local potency development [3]. This tourism subsector is quite promising to be developed in village to improve the village development and economy. Therefore,

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production forest in Cijambu Village, Tanjung Sari Sub District, Sumedang Regency is transformed into ecotourism area. The wide area of this forest is 12 Ha and owned by Perhutani. Perhutani is a State Owned Enterprise which has authority to organize the planning, management, concession and forest protection in Indonesia.

Ecotourism management at production forest area in Cijambu Village was initiated by the village and Perhutani. It was in line with the new paradigm as stated in the Law number 6 of 2014 concerning village. This regulation puts forward the "developing village" in village development. Developing village means that village has its independency in self-development [3]. The state is no longer become the main actor in village development. The main actors in village development are government and village community. The government and community in Cijambu Village see that there is a village potency that can be developed into a tourism area. This idea is realized by developing an ecotourism area named Ciherang Tourism Area. The management of this ecotourism object involves village community, government, Perhutani, and investors. Ecotourism management in Cijambu Village has achieved its goal in conserving forest while increasing the economic level of community in Cijambu Village. There are 400 people of Cijambu Village who earn income from ecotourism object at Ciherang Tourism Area.

Ecotourism management at production forest area in Cijambu Village is a new and innovative thing. Innovation is also something that still being encouraged in village level in order to push village development. In addition, this ecotourism management is also conducted collaboratively. Collaboration and partnerships among government, tourism industries, local communities, investors, NGOs, and tourists are highly required for ecotourism success (Drumm & Moore 2005) as quoted by [4]. In addition, public sector innovation also need to be supported by the collaboration. In many cases, public sector innovation also requires collaboration among various public and private actors that consist of politicians, bureaucrats, experts, private firms, interest organization, and community based association as quoted by [5]. The research also showed collaboration based innovation that can successfully improve the quality of public services and public policies [5].

Throughout the author's research, research on ecotourism management still focuses on community based ecotourism management. For

example, a research by Tanaya and Rudiarto at Rawapening Tourism Area Semarang. They identified that Rawa Pening area has a quite good potency to be developed as community based ecotourism area. This area has tourism resources in natural and cultural. It also has potential community resources to be empowered for the tourism activities. There are also several government programs and policies to develop ecotourism in this area [6]. Less research that explore the collaborative innovation process in managing ecotourism object, especially in village level. This research tried to fill the emptiness of literature about collaborative innovation process in managing this ecotourism object. Therefore, there were two problems to be solved in this research, how was the collaborative innovation process in ecotourism management of Ciherang Tourism Area; and what factors that able to encourage the success of collaborative innovation process in ecotourism management of Ciherang Tourism Area.

#### **MATERIAL AND METHOD**

This research used qualitative approach. The type of research was descriptive research. Descriptive research was selected to understand, describe, and analyze collaborative innovation process and factors that encourage the management of Ciherang Tourism Area.

In this research, gathered data was analysed in descriptive qualitative by understanding and composing the collected data to deeply figure the researched object; systematically composed, and then concluded.

#### **Data Collection**

Data was collected by using literature study technique, observation, and in – depth interview.

The research locus was Ciherang Tourism Area in Cijambu Village Tanjungsari Sub District Sumedang Regency. This locus was chosen because The Ciherang Tourism Area is the new tourism area which conducted innovatively and collaboratively in Sumedang Regency.

Key informants in this research were actors that involved in collaborative innovation process in the management of Ciherang Tourism Area, namely Perhutani, the government of Cijambu Village, the management of LMDH (Forest Village Community Organization) and investor.

## **RESULT AND DISCUSSION**

### **Innovation of The Ciherang Tourism Area**

Innovation is a complex, iterative, and nonlinear process [7]. Innovation is not only having a new idea but how this idea is implemented [8]. Public sector innovation is an intentional and proactive process in creating, practicing, and disseminating new and creative idea to get a change in a particular context [7]. Therefore, public sector innovation is the implementation of new and good ideas to generate impact and change in governance, public policies, and public services. Innovation has 4 stages, namely generation of ideas; selection of ideas; implementation of new ideas; and dissemination of new practice (Eggers & Singh 2009) as quoted by [7].

Ciherang Tourism Area is currently a leading tourism destination in Sumedang Regency. According to the interview results with the Head of Cijambu Village, this tourism area has the highest visitor in Sumedang Regency. In addition to enjoy the natural beauty, visitors can also enjoy various games such as swimming pools, hanging bikes, flying fox, children games, archery, and boating facilities. The management also provide several spots to take pictures. Out of 12 Ha Perhutani's forest, Ciherang Tourism Area occupy 6 Ha. This tourism area open every day from 8 a.m. to 5 p.m. Based on the interview results with Perhutani, the income of this tourism area in 2017 was 2 billion rupiah.

The original idea of this tourism village development had been started in 2006 and fully realized in 2016. The initiators of this tourism village development were youth leaders of Cijambu Village, the management of *LMDH* and Perhutani. Incidentally, the tourism technical officer of Perhutani who handle tourism area in Cijambu Village is also the member of youth leader in Cijambu Village. These initiators identified that there were tourism potencies that can be developed from forest area in Cijambu Village such as shady pine forest, clear Ciherang River flow, and cool mountain atmosphere.

Before the development of tourism area, there was a damage in this area that caused by human activities. This damage was caused by trail adventure community who made this area as a wild trail arena. In addition, there was also illegal logging activity. It exacerbates the damage of the forest area. Therefore, the initiator determined to realize this idea. Finally, in October 2016, this tourism area was officially opened for public. Therefore, the development of forest area into

tourism site have several main purposes: to maintain the sustainability of forest area, to create new tourism destination, and to improve the economic level of community. Therefore, the innovation idea of this Ciherang Tourism Area was originally came from the village itself, not from the outside party. The village has a strong desire to improve their village.

In realizing this innovation idea, the initiators conducted several phases. Forest Management Unit/KPH of Cijambu Perhutani tried to identify the potency of tourism and developed the idea of Ciherang Tourism Area. The village also tried to find and convince investors to invest their capital for various tourism arenas development at Ciherang Tourism Area. Once investors were acquired, the initiators started to socialize this idea to all community elements in Cijambu Village. Not all community members accepted this innovation idea. The initiators need time and various efforts so the community members able to accept this tourism village development. Once they got permit and agreement from the community members, this innovation idea was then submitted to the internal management of Perhutani. Perhutani finally gave permit the transformation of production forest area into tourism area. Then, Perhutani took care many permits process in Sumedang Regency. The initiators then composed and agreed a memorandum of cooperation agreement (NPKS) about the rights and obligations of the actors. Then, Ciherang Tourism Area was officially opened for public.

The innovation idea had been well communicated so it could be accepted by all actors. In the innovation process, this communication process is called the process of diffusion of innovation. Innovation diffusion is a process to communicate innovation through a certain channel within certain time period among members of social system [9]. The initiators used bottom up strategy in communicating this innovation idea. The initiator also used a deliberation strategy and sit together to conduct socialization and communication with various actors.

In its daily operation, the management of Ciherang Tourism Area has not composed a written standard operational procedure (SOP). However, it is not a big problem for the tour operators because they conduct their duties according to their job description as written in the NPKS. In addition, the actors always coordinate in the field in conducting their own

duties. In addition of agreements that written in the NPKS, the representatives of actors come every day to tourism arenas to help the smoothness of this tourism area management. To maintain the security, especially at night, a night picket schedule is arranged to keep the equipment and tools at this tourism area safe. This is indirectly helpful to maintain the forest area of Ciherang from illegal logging at night.

When it was built and opened in 2016, Ciherang Tourism Area gave a huge impact to the community of Cijambu Village. The biggest advantage was the availability of job opportunity for village community. The members of Karang Taruna (youth organization) also work as tour guide. In addition, many local people from Cijambu Village work as parking area officers, tourism area officers, and traders at the tourism area. Based on the interview results with the Head of Cijambu Village, there are 400 villagers who work and earn income from Ciherang Tourism Area.

The profit sharing earned by the village government is used to provide infrastructures for community. One of very useful facilities is village's car. As a village which located in a mountain and very far from the capital city of the sub district, car is used by the community for many purposes, such as deliver sick people to the hospital. In addition, profit sharing fund is also used by the village to pay various village activities. In addition, the government of Sumedang Regency and Perhutani also get the benefit from the presence of Ciherang Tourism Area. The government of Sumedang Regency also earn income from tourism activity tax. Perhutani earn income from tourism area entrance ticket.

Even though it is a leading tourism destination in Sumedang Regency, this area still face some problems. One of them is poor road infrastructure heading to the location of this tourism site. In addition, based on the statement from the Head of Cijambu Village, this area also still face waste management problem especially waste produced by the tourism activities. The village government has coordinated this problem with the government of Sumedang Regency. However, it has not been responded yet and finished by the regencial government. Another problem faced by the management of this tourism area is lack of community understanding and behavior to support the management of Ciherang Tourism Area.

### **Collaborative Innovation Process in The Management of The Ciherang Tourism Area**

Collaboration is a process where autonomous actors interact through formal and informal negotiation, together creating rules and structures that regulates their relationship and way of acting or decide what issues/problems that causing them to get together. Collaboration is a process that involve shared norms and mutual interaction that give benefit for each actor [10].

Collaborative innovation process focuses on the involvement of actors with various identities, roles, and resources in implementing the innovation (March & Olsen 1995) as quoted by [7]. Collaborative innovation process consist of: empowered participation; mutual and transformative learning; and joint ownership [7]. In collaborative innovation process, there are several involved actors and have their own roles. These actors communicate and coordinate, share knowledge and new things in innovation implementation. Then, sense of program/innovation product ownership is appeared among these actors.

There are four main actors involved in the management of Ciherang Tourism Area, namely Perhutani, Forest Village Community Organization (LMDH), investors and the government of Cijambu Village. These actors have their own roles, rights, and obligations. Their roles and functions have been legalized in a memorandum of cooperation agreement (NPKS). Therefore, collaboration in this tourism area management is formal because it is written in a legal cooperation document. This collaboration model was selected because the management of tourism area required many manpower resources, financial facilities, and infrastructures so there were many financial rights and obligations among the actors.

The roles and functions of each actor have been formulated according to the authorities and capabilities. As the party that owns the land, Perhutani's role is to provide land that can be used as the tourism area. LMDH with technical and operational capabilities in forest management acts as a technical and daily manager at the tourism area. Investors have financial capabilities to provide various tourism arena. Village government has authority in governance and village development, as well as a connector between the management and community, and to provide public facilities and infrastructures to support tourism area. The

management of this area give financial contribution to many actors. Based on the entrance ticket income data, there was a proportion of profit sharing for each actor. Perhutani earns 40% of entrance ticket income; investors earn 30% of entrance ticket income; LMDH earns 25% of entrance ticket income; and village government earns 5% of entrance ticket income.

Based on the interview results, it can be identified that dominant party in this tourism area management is Perhutani. Perhutani earns the highest income than others. However, the village government considers that investors also have big roles and responsibilities. Therefore, investors are eligible to earn similar portion of income with Perhutani. So far, the dominance of actors does not cause any paternalistic pattern and big problem in this collaboration process.

Communication and coordination process is an important process in collaboration process. In this communication process, there will be sharing and learning process among actors. This process has been conducted in the management of Ciherang Tourism Area. Communication process runs routinely among actors and in this communication process there is also sharing activity of ideas, information, knowledges, and experiences among actors. Based on the interview results with Perhutani, Perhutani held various coaching activities for knowledge sharing process with related LMDH about the management of tourism area and keep to preserve the forest area. Perhutani also stated that the management always try to get input from visitors about their services and what kind of arena/ride they desired. Ideas and wishes from visitors are tried to be realized by the management even though it has to change the original roadmap of this tourism area management. The village government initiated to invite informants from many institutions to share their knowledge related with the management of tourism area to the management and community. Therefore, each actor has their own initiative and able to deliver many ideas, knowledges or information related with the development of tourism area management to the actors. Although the realization of this idea will be highly depend on the abilities and resources to realize this idea.

Communication and coordination process among actors does not always run well. Based on the interview results with the head of Cijambu Village, it can be identified that they should have

a regular meeting every two weeks. However, the meeting cannot always be realized because of each party business. It can disrupt the smoothness of tourism area operation because this meeting forum is an arena to discuss various problems. If the meeting is not conducted, certain crucial problem cannot be directly discussed among actors. Whereas, decision has to be taken and agreed by all actors. It cannot be only conducted by daily manager himself. Therefore, if there is a very important and urgent issue, village party and Perhutani will directly contact all actors to conduct a meeting and resolve this issue.

All actors have their own motivation to be involved in the management of Ciherang Tourism Area. Perhutani has a motivation to preserve the forest and create new tourism destination. Meanwhile, village government and LMDH want to develop the village and improve community economic level. Investors have motivation to earn profits and provide camping ground and outbound area for their students. Investors own an elementary school and high school in Cileunyi Sub District so they need camping ground and outbound area for their students. With these motivation, each actor has high sense of ownership to Ciherang Tourism Area. Each actor has similar desire to develop this tourism area better. If there is an outsider make a problem or want to damage this area management, the actors will enthusiast to participate in this problem solving. High sense of ownership will make every issue and conflict can be well solved.

Therefore, collaborative innovation process in the management of Ciherang Tourism Area has been run well. Each involved actor has own role which adjusted to the authority, ability, and resources. There is still actor dominance but it is not disturb the collaboration process. Each actor accept his own roles and responsibilities. In collaboration process, there are sharing of ideas, knowledges, and information from the actors to improve and develop the management of tourism area. Each actor has similar opportunity to deliver ideas and information. Each actor also has good initiative to deliver various ideas, information, knowledges, and problems related with the management of tourism area. Each actor has a high sense of ownership to the management of this tourism area. This ownership sense make every issue and conflict in this area management can be well solved.

### **Influencing Factors in The Collaborative Innovation Process in The Management of The Ciherang Tourism Area**

According to the literature, there are several factors that able to encourage the collaborative innovation process, such as high urgency of public policy and service; high dependency level among actors; agreement to the common mission and high level of the mutual trust of actors; and to earn significant advantages and innovation [7]. In the management of Ciherang Tourism Area, these influencing factors affect the collaborative innovation process.

The actors have important issues that must be solved through the innovation development of Ciherang Tourism Area. Perhutani have problems related with the decreasing of production forest sustainability because of human activities and the urge to create new tourism area in Sumedang Regency. Meanwhile, the village government and *LMDH* have problems in village development and community economic improvement. Investors have a desire to provide camping ground and outbound area for their students. These important issues must be solved and able to encourage the actors to create and realize the innovation idea of tourism area so these problems can be solved.

In the management innovation of Ciherang Tourism Area, there is a high dependency among actors. The village government stated that this tourism area cannot be realized without collaboration among the actors. Perhutani has forest area but does not have sufficient capital source and no authority in organizing village community. Village government has authority in developing village but no land and capital sources. Meanwhile, investors have capital sources but no land. Therefore, collaboration is the most effective method to realize this innovation idea.

The actors also have understanding and agreement on what kind of mission to be achieved from the management innovation of Ciherang Tourism Area. These actors have similar mission to develop this tourism area into more qualified area so the actors able to take bigger benefit from this area management. This collaborative mission can be agreed among actors because it does not contrary with the original motivation of these actors and what kind of actors' problems that must be solved in this innovation. Perhutani considered that the development of this tourism area is able to maintain the forest area sustainability and

increase company's income. Village government and *LMDH* also considered that village development and economic level continue to increase if tourism area is continued to be developed. Investors also earn higher profit and able to provide camping ground and outbound area for their students if this tourism area is more advanced.

There is also a high level of the mutual trust among actors in the management of Ciherang Tourism Area. This trust level is obtained because the actors have formulated an open financial management. Tourism area income is calculated every single day. However, this income is then recapitulated and shared to the actors according to the agreed proportion every two weeks. Each actor receives a detail income report from this tourism area. Based on the interview result, it also can be identified that so far there is no fraud problem in financial management of tourism area. Financial management is the most important aspect in trust level determining. If there is a fraud in financial management, there will be distrust among actors and collaboration process will end.

In this collaborative process, all actors have significant benefits and advantages. These benefits can be material or non-material benefits. Material benefit is profit sharing in the management of tourism area. Meanwhile, Perhutani received non-material benefit such as the sustainability of forest area in Cijambu Village. Village government and *LMDH* also get the benefit that the village government able to conduct something for village development. For investors, this collaboration adds the service for their students.

This collaboration process has successfully achieved its goal. However, there are still some problems and obstacles. The potential factors that may inhibit collaborative innovation process are:

- a. Cultural barriers: prevalence of prevalence of a legalistic, zero-error culture and predominance of paternalistic professional norms.
- b. Institutional barriers: strong separation of politics and administration and use of inappropriate designs for dialogue with users.
- c. interorganizational barriers: predominance of bureaucratic silos, boundary wars, and groupthink;

- d. organizational barriers: lack of focus on innovation and absence of procedures for exploration and exploitation;
- e. identity-related barriers: the identities of key stakeholders prevent collaborative innovation [7].

Based on the interview with the village government, there was still an inter-organization barrier in collaboration process in the management of Ciherang Tourism Area. For example, village government revealed that the village asked to the Perhutani to remove the target of pine sap revenue from the forest area that used for tourism object. Pine trees at the tourism area can no longer produce pine sap optimally. This proposal had been officially submitted but there was no response and decision from Perhutani because it still in the bureaucratic process in the management of Perhutani. In addition, in this collaborative innovation process there was still organizational barrier such as reciprocally problems throwing and responsibilities among actors. Especially problem that has not been regulated in the NSPK. The actor felt that this problem was not his responsibility. It was also caused by poor communication and coordination process. However, these inter-organization and organization barriers in the collaborative process can be always solved and do not threaten the sustainability of collaboration. Actors' commitment to keep the collaboration is still strong so various problems and obstacles can be faced together and take a good solution.

#### **CONCLUSION**

Collaborative innovation process in the management of Ciherang Tourism Area has been running well. Every involved actor has his own role that has been adjusted with the authorities, capabilities, and resources. In the collaboration process, there are some sharing of ideas, knowledges, and information among actors to improve and develop the management of tourism area. Every actor has high sense of ownership to the management of this tourism area. This ownership sense make every issue and conflict potency in this area management can be well solved.

There are several factors that encourage the implementation of collaborative innovation process in the management of Ciherang Tourism Area such as high urgency of public policy and service issues; high dependency among actors; agreement on common mission and high level of

the mutual trust among actors; and get significant advantages and innovation. Meanwhile, potential factors that inhibit collaborative innovation process are inter-organizational barrier and organizational barrier.

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