

Actor Network Study: an Examination of the Implementation of the Rempoah Village Climate Village Program as it relates to the Development of an Eco-Tourism Destination

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Abstract

Rempoah Village has integrated two significant initiatives. The implementation of the Climate Village Program (ProKlim) constituted the initial phase, which was followed by the development of a tourism village based on environmental education. The objective of the study was to examine the actor networks that were formed and that played a role in the implementation of these two initiatives in Rempoah Village. The network of actors who play a role in Rempoah Village was analyzed using Actor Network Theory (ANT) as the analytical framework. This theory underscores the notion that a continuous process of change occurs among actors. The roles and relationships between actors are among the key determinants of success in achieving a goal. This study offers valuable insights into the role and process of actor network formation in the context of the Rempoah Village case study, specifically in relation to the implementation of the two initiatives. The author employs a qualitative research approach, utilising both primary and secondary data sources. The findings indicate that a network of actors has emerged in Rempoah Village through a process of interaction, characterised by translations and intermediaries between actors who play a role in each other's activities.

Keywords: *Actor Network, Rempoah Village, Eco-Tourism Village, ProKlim*

1. Introduction

The ongoing climate crisis and sustainable development represent significant issues that impact various aspects of life, including the tourism destination sector. This research project aims to examine the role of the Climate Village Program in the development of sustainable ecotourism destinations in accordance with the Sustainable Development Goals (SDGs). To this end, it is essential to understand the dynamics of the actors involved and how their network shapes the expected outcome. This study, therefore, represents an important contribution to the field of sustainable tourism development.

Rempoah Village is situated within the Baturaden subdistrict of Banyumas Regency. Rempoah Village has been identified as one of the 100 best villages in Indonesia. In 2018, it was ranked 59th among developed and independent villages and received funding from the Corporate Social Responsibility (CSR) program of Kampung Berseri Astra. Moreover, Rempoah Village has been designated a ProKlim village, which is currently undergoing a transformation into an eco-tourism destination. This aligns with the directives set forth in the Joint Decree of the Minister of Environment and the Minister of National Education (No. Kep.07/MenLH/06/2005 and No. 05/VI/KB/2005) on the Guidance and Development of Environmental Education.

In the view of Alamsyah, an eco-tourism village represents a specific form of ecotourism development. This concept was initially introduced by the Ecotourism Society Organization in 1990. It encompasses a responsible approach to tourism, emphasizing environmental conservation and the well-being of local communities [1]. In essence, the key lies in the factor of introducing and educating people about culture from an early age, through a learning design that is deliberately presented in accordance with the environmental material in the tourist attraction format. In essence, ecotourism offers not only the aesthetic appeal of natural destinations but also provides an opportunity to disseminate scientific and

local philosophical knowledge, including the principles of ecosystem and sociological systems, to tourists. To date, the concept of edu-ecotourism has only been implemented as an environmental conservation campaign. It is therefore evident that nature education tourism activities (Eco Edu Wisata) should not be regarded as merely a venue for recreation or vacation; rather, they should be considered an invaluable opportunity to gain insight into the surrounding environment and the management strategies employed to preserve it. The integration of educational, instructive, and environmental elements into the Eco Edu Wisata experience serves to enhance the collective body of knowledge and heighten awareness of our collective responsibility for environmental sustainability.

This paper is significant in that it offers insight into the role of key actors in the Climate Village program, which aims to establish the village as an Environmental Education Tourism Village. This will facilitate the development of environmentally friendly tourism while educating about the importance of the environment and addressing the various challenges encountered during the implementation process. As awareness of the necessity for sustainable environmental management grows, it becomes increasingly important to comprehend the interconnections between local initiatives and tourism development. Prior research, including that conducted by Adger and Scott et al., how that adaptation to climate change is highly dependent on local community involvement and collaborative resource management[2,3,4]. However, there is a lack of research that specifically analyzes the relationship between local initiatives, such as the Climate Village Program, and ecotourism development in Indonesia.

The extant literature demonstrates that although there are numerous studies on climate change and tourism, there remain significant gaps in our understanding of how actors within social networks interact to achieve a sustainable development goal, particularly within the tourism sector at the village level. Actor Network Theory (ANT) offers an invaluable lens through which to examine such interactions. However, the dearth of applied research in the context of Indonesian villages that are implementing ProKlim to Eco-tourism Villages highlights the necessity for this study.

The objective of this research is to address the aforementioned gap in knowledge by examining the collaborative efforts of various actors, including local government, community, and private sector entities, in the implementation of the Climate Village Program, which has resulted in the transformation of Rempoah Village into an Eco-tourism Village. This research problem focuses on the interaction and role of actors in the network that supports the sustainability of eco-tourism initiatives in Rempoah Village. The purpose of this study is to provide a comprehensive understanding of the dynamics of these actors, with the context of Rempoah Village as the unit of analysis, in order to demonstrate the potential and challenges in creating a sustainable eco-tourism destination.

2. Method

This article aims to analyze the actor networks that are formed and play a role in the implementation of these two initiatives in Rempoah Village using actor network theory. The method used in this research is a qualitative approach. Data collection was conducted using interview methods and complemented by data mining techniques for social science. Informants came from various elements. The data analysis technique used in this research is the interactive data analysis model developed by Miles and Huberman (1992). This technique consists of data reduction, data presentation, conclusion drawing, and verification [5]. Data collection in research is an interactive process. In addition, secondary data analysis is also used in this article to ensure the research objectives are achieved. The use of secondary data analysis will strengthen the primary data because it is enriched with other existing data.

3. Results and Discussion

Rempoah Village is situated within the Baturraden Subdistrict of Banyumas Regency. In terms of its geographical location, Rempoah Village is situated on a medium terrain, with its boundaries delineated by the following villages: to the west, Pamijen Village and Kebumen Village; to the north, Karang Tengah Village and Kemutug Kidul Village; to the east, Banjarsari Kulon Village; and to the

south, Pandak Village. Rempoah Village is the largest in terms of area among the villages in the Baturraden subdistrict, with an approximate total area of 246,433 ha[6]. The distribution of land use within the village is detailed in the table below

Table 1: Land Use

No.	Land Use	Broad (Ha)
1.	Agricultural Fields	131,12
2.	Plot/Building	88,52
3.	Farmland/Garden	7,31
4.	Fishing Pond	1,1
6.	Village Cemetery	2,5
7.	Sports Facilities / OR Field	2,9
8.	Government Facilities and Roads	1,2
7.	Others	11,78
Amount		246,433

An evaluation of the existing land use suggests that the primary sources of income in the community are farming and agricultural labor[7]. Rempoah Village benefits from a relatively sophisticated irrigation system, largely due to the high volume of water that is available. The high availability of water in Rempoah Village is attributable to a combination of factors, including the region's high average rainfall and the presence of major rivers that traverse the area. These conditions facilitate the organization of agricultural irrigation.

Table 2: Livelihoods of the Population Rempoah Village, Baturraden Sub-district

No	Jobs	Quantity (Person)	No	Jobs	Quantity (Person)
1	Farm Laborers	693	11	Mechanic	27
2	Farmer	515	12	Driver	111
3	Breeders	56	13	Housekeeper	102
4	Trader/ Entrepreneur	300	14	Contractor	11

5	Craftsmen	17	15	Carpenter	64
6	Civil Servant	176	16	Stone Masons	76
7	TNI/ POLRI	33	17	Casual Laborer	125
8	Retired	56	18	Migrant Worker	37
9	Private Employee	217	19	Student	1.201
10	Tailor	21	20	Others	257
The number of people who have a livelihood is 4.095.					

In 2022, Rempoah Village became involved in the Climate Village Program (ProKlim), following the formation of a ProKlim Team chaired by Ragil Wahyutomo. ProKlim is a national community-based climate change control movement that aims to encourage active community participation and collaboration with all relevant parties in implementing local actions to enhance resilience to the impacts of climate change and reduce greenhouse gas (GHG) emissions. It was launched by the Ministry of Environment and Forestry (KLHK), particularly the Directorate General of Climate Change Control (DG PPI). In accordance with the stipulations set forth in Law No. 16 of 2016, Indonesia ratified the 2015 Paris Agreement. In order to demonstrate its commitment to the Paris Agreement, Indonesia established the Climate Village Program (ProKlim). In one of the decisions 1/CP.21 UNFCCC related to Non-Party Stakeholders (NPS), it is stated that the community, private sector, financial institutions, and local governments are to increase their efforts and provide support for actions aimed at reducing emissions and building resilience and reducing vulnerability to the negative impacts of climate change.

The preparation of ProKlim Rempoah Village commenced in 2018, yet the SRN (National Registry System) data was only inputted in 2022. A variety of community members are involved in the operation of ProKlim, including youth (karang taruna), women (PKK and Women Farmers Group), Posyandu, Waste Bank, Bumdes, and community leaders. The Regional Government of Banyumas Regency, in particular the Environmental Agency, has provided substantial assistance since the inception of the programme. This has included guidance and support in the collection of data and the completion of the SRN and Spektrum applications.

Community-based Total Sanitation (STBM) activities in Rempoah Village are implemented by the formation of Jumantik (Juru Pemantau Jentik), verification of healthy latrines through Open Defecation Free activities, drainage cleaning, PAMSIMAS services, manure management through IPAL (WasteWater Treatment Plant), composting of animal waste, the existence and functioning of POSYANDU (Integrated Service Post). The rules regarding the prohibition of open defecation. The institutional support component in Rempoah Village shows the strong involvement of all components of the Rempoah Village community in running the Climate Village Program until the data entry into the SRN and Spektrum application reaches 95.47%, which means it has entered the National Main ProKlim category. Academics from Jenderal Soedirman University helped from the socialization process, data collection to data input. This achievement brought Rempoah Village to be awarded the National Main ProKlim Award (trophy) in 2022 from the Ministry of Environment.

Armed with the activities that have been running in Poklim, Rempoah Village successfully received guidance from PT Astra in the Kampung Berseri Astra (KBA) scheme. Kampung Berseri Astra is Astra's Sustainable Social Contribution program implemented to the community with a development concept

that integrates 4 program pillars namely education, entrepreneurship, environment and health. Through the Kampung Berseri Astra program, the community and the company can collaborate together to create a clean, healthy, smart and productive area so as to improve the quality of life of the people in the Kampung Berseri Astra area[8]. After going through various stages and coordination between the local government, the company and the Rempoah Village ProKlim team, in 2023 Rempoah Village officially received various assistance in the KBA program. KBA Rempoah received various educational programs, especially related to the environment, agriculture and waste management techniques.

Its success as a village that runs ProKlim and KBA, made Rempoah Village want to develop its village as a tourism village. The choice of tourism village is based on community activities in managing their environment. Eco Edu Tourism is a characteristic of Rempoah Tourism Village or often referred to as Rampai Tourism Village (Ragam Pesona Alam Rempoah Indonesia). Eco Edu Tourism is a combination of ecotourism and edu-tourism. The definition of ecotourism was first introduced by The International Ecotourism Society or TIES organization in (Fandeli, 2000), explaining that ecotourism is a form of tourist travel to natural areas carried out with the aim of conserving the environment and preserving the lives and welfare of local residents. Edu-tourism is intended as a program in which participants in tourism activities travel to a certain place in a group with the main purpose of getting a learning experience directly related to the protected location (Rodger, 1998).

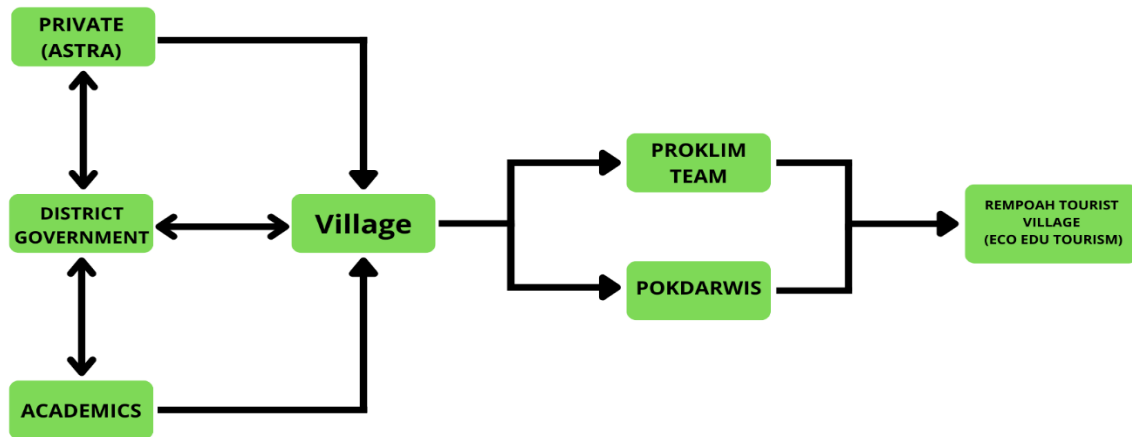
The first step taken was to form a Tourism Awareness Group (Pokdarwis) chaired by Mrs. Sri Rejeki who received assistance from the Banyumas Regency Youth, Sports, Culture and Tourism Office (Dinporabudpar) as well as academics who assisted in mapping and analyzing tourism potential and promotion strategies. According to the head of Pokdarwis, the tourism potential relied on in Rempoah Village is the village's ability to manage the environment. Angklung Saung Rampai is the art displayed for tourists, while Banduara Handicraft is a center for making various crafts made from waste that can be purchased as souvenirs from the Tourism Village. Promotion of educational tour packages based on environmental resilience is carried out through various media targeting school students and the general public from various groups, especially those who want to gain experience and knowledge in the fields of animal husbandry, agriculture and waste management and environmental conservation. Through Deswita Rampai's profile[9],

The existence of Deswita Rampai, which began with the success of ProKlim, involves several actors who build cooperation in their respective capacities in a reciprocal network. These actors include the Rempoah Village government, Banyumas Regency Government (in this case DLH and DINPORABUDPAR), academics, the private sector (PT Astra) and the community who are members of the ProKlim team and Pokdarwis. Referring to the Actor Network Theory (ANT) initiated and developed by Bruno Latour, which assumes that society does not merely contain individual human elements and the norms that govern their lives, but rather moves in a "network". Actor-Network Theory argues that a scientific discovery does not come from a single, closed person. Rather, a scientific theory comes from networks of both subjects (humans) and inanimate objects (non-humans). In this case, when the relationship between humans and non-humans is performed, there are two possibilities that always accompany it: either resilience and conformity, or disintegration and meaninglessness. This degree of resilience is then referred to as immutable mobiles[10]. ANT developed by Bruno Latour (2005) advances the concepts of *network*, *actor*, *translation*, and *intermediary*.

Actors are interpreted as actors or parties to the action that in an event will be questioned how many and who are the actors involved and actors are not only humans but also technical objects. The network concept does not only focus on the social relations of human actors, but includes non-human actors, namely a heterogeneous (diverse) network. Furthermore, ANT mentions the *actor network*, which states that it is the connected (networked) factors that cause how actors act. We will not do something in an empty state (without a clue) but under the influence of various factors which means

that all influencing factors must be considered together or all actions are connected together therefore all influencing factors, connected, will produce a network.

Figure 1: Actor Network in Rempoah Eco EduTourism



Actors who are able to control other actors are referred to as actants. Actants have the ability to move in and out of a network based on their will and interests. When an actor enters a network, the network will give them a name or nickname, activity, attention, and role in the network. In other words, this actant is the main element and becomes the driving force or controller in the network. Bruno Latour (2005) explains that there is an actor or subject who starts to create a reality. In this case, the actor is the Rempoah Village Government, because the village government is able to control the existence of other actors such as the ProKlim team and Pokdarwis, providing support and facilitation so that both actors can work and run according to their functions. The village government also has the authority to determine its cooperation with other actors such as academics and the private sector (companies).

This indicates that the actor's comprehension of social reality is a form of shared understanding within the social context. Actors or subjects operate within a larger distributed network of mutual interaction and feedback. The actor's comprehension of social reality serves as a point of reference for other individuals within the context of social life. This understanding is then disseminated through the process of social interaction between actors and other individuals. In this way, the village initiative to form a ProKlim Team, which continues with the formation of Pokdarwis, represents a manifestation of the understanding of social reality held by the village government as the principal actor (actant) regarding the potential of the environment, which allows for further exploration. The exploration of the potential for a tourist village ultimately leads to a shared understanding that adaptation and mitigation activities, as well as institutional strengthening in ProKlim, are shared responsibilities. Furthermore, the formation of a tourist village is perceived as a shared opportunity for improving the community's economy.

The translational process related to ProKlim and Eco Edu Tourism is a process undertaken by all actors in the network. The process of learning, adjustment and changes in mindset and behavior are experienced by the network through various joint activities. The socialization of proKlim conducted by the Environmental Agency to the ProKlim team ultimately takes place in the community considering that one of the things that must be done by the ProKlim team is to involve all components of the community in carrying out adaptation and mitigation activities. Likewise, the coaching conducted by Dinporabudpar to Pokdarwis intensely in preparing the capacity of human resources and the technicalities of forming a tourism village is a learning process that is able to construct the community to run Deswita Rampai based on environmental management learning.

Likewise, the interaction of actors with academics who provide regular assistance in both ProKlim and Pokdarwis, the translation process runs through socialization as well as assistance and technical guidance, both the data collection process, data input in SRN (ProKlim) and the activities of academics in the village who transfer knowledge in agriculture, animal husbandry and health. transfer knowledge in the fields of agriculture, animal husbandry and health. For

Pokdarwis, assistance in mapping the tourism potential of the village, fostering MSMEs, promotion of Dewita Rampai as well as various art coaching, guiding and public speaking for Pokdarwis members. Likewise, the process that occurs with PT Astra in KBA which provides various programs to improve human resources, entrepreneurship, the environment and health in its interaction is a learning process that is able to make the community able to transform together.

An intermediary is an actor who “circulates” between actors and who maintains relationships between them. An intermediary is a middleman or a negotiator who acts as a link between actors or sets of actors. Intermediaries are also often referred to as intermediaries or inter-agents who function as mediators or intermediaries. Actor Network Theory (AANT), emphasizes the continuous process of change that occurs between actors: because according to Bruno Latour (2005) actors are also the ones who make other actors do things, such as moving from one point to another in another network that occurs due to social change. In this case, the intermediary is the local government, which in this case is carried out by the Environment Agency and Dinporabudpar of Banyumas Regency. The personnel assigned by these agencies become intermediaries for the actors in the network so that the network is well maintained. The agencies are able to establish relationships with the private sector and academics who are considered competent and relevant to contribute to Rempoah Village, and even collaborate with other actors in the network to achieve common goals considering that the process of connection, association and reassociation of actors in the network is not only determined by social change but also various forms of sustainable renewal.

If we observe that a network will be able to develop into cooperation by passing through certain phases or stages or requirements. Social networks can be formed because of the values and norms that are held firmly together which then underlie the birth of cooperation. However, social cooperation does not necessarily appear just like that. It can be brought about by creating a shared identity, moral exchange and repetition of interactions. Referring to Fukuyama's (2005) opinion that in the context of networks or cooperation there are two important elements, namely related to the reciprocal benefits of an interaction and the repetition of interactions. In the formation of a network, it is necessary to have values or norms that are held firmly together and a relationship that is nuanced with cooperation. Meanwhile, in its development, a network that can develop into a collaboration requires the creation of a shared identity, reciprocal norms and repetition of interactions. In the context of reciprocal cooperation, all actors in the network have their own interests that are brought into the process of cooperation in the network. Fulfilling the interests of each actor in the process creates harmonious and balanced cooperation in the network. The village has an interest in transforming so that the community is more environmentally aware while improving the community's economy, which means that welfare is in the interest of village actors. The local government (in this case the relevant agencies) runs government programs targeting villages according to the rules, targets, targets and methods that have been determined to be their duties.

Academics are obliged to contribute to development in accordance with their fields of knowledge and expertise that help government programs and benefit the community. The activities of academics are community service activities as a fulfillment of the tridharma obligations of higher education so that the involvement of academics in this network is not only beneficial for other actors in the network, but also very beneficial for the academics themselves. Likewise for the private sector / business group, in this case PT Astra, this network is very helpful for the company in carrying out its mission as a company that has concern for improving the quality of human resources, the

environment, education and health. The company's image is formed through the distribution of Corporate Social Responsibility (CSR) funds manifested in the Kampung Berseri Astra program, one of which is run in Rempoah Village. The success of this program greatly helps to increase the branding of companies that contribute greatly to Development.

4. Conclusion

Actors who build cooperation in their respective capacities in a network that is reciprocal. This happens because of all the influencing factors to be considered together that occur from an interaction and the repetition of interactions that will produce a network. In this study, the actors include the Rempoah Village government, Banyumas Regency Government (in this case DLH and DINPORABUDPAR), academics, the private sector (PT Astra) and the community who are members of the Proklim team and Pokdarwis. When the village government took the initiative to form a Proklim Team, followed by the formation of Pokdarwis, it became the main actor (actant), it eventually became a shared understanding and continues to form a natural network. This shared understanding in the form of Proklim which is a shared responsibility and continues in the initiation of the formation of a tourism village becomes a joint opportunity in improving the community's economy.

5. Conflict of Interest

The authors of this article hereby affirm that no conflicts of interest exist with regard to the writing or publication of the present article.

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