

https://doi.org/10.46488/NEPT.2022.v21i05.026

2022

# Local Community-Based Management Model in Karimunjawa National Park

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doi

#### Nat. Env. & Poll. Tech. Website: www.neptjournal.com

**Original Research Paper** 

Received: 22-06-2022 Revised: 02-08-2022 Accepted: 03-08-2022

#### Key Words:

Local community Management model Karimunjawa National Park Tree planting

#### ABSTRACT

This research aims to study the management model of Karimunjawa National Park Based on Local Communities. Activities are carried out in all sections of Karimunjawa National Park Management. Data sources are informants involved in Karimunjawa National Park Management and secondary data was collected using rapid monitoring methods, namely in-depth interviews, field observations, FGDs, and various other data collection techniques (technique triangulation). Methods of Data Analysis were observation using interactive data analysis. Empowerment of local communities in the Karimunjawa National Park in the Karimunjawa National Park area is carried out in three ways: coral reef rehabilitation activities, mangrove forest planting, and lowland tropical forest tree-planting efforts to develop a conservation village model.

## INTRODUCTION

National Park, both land and water, is a protected natural area with the uniqueness and uniqueness of natural resources regulated by Law no. 5 of 1990 concerning the conservation of living natural resources and their ecosystems (Suherman et al. 2015). The Karimunjawa National Park area is located in Jepara Regency, which is designated as a National Park based on the Decree of the Minister of Forestry and Plantations No. 78/Kpts II/1999 dated 22 February 1999 regarding the change in the function of the Karimunjawa nature reserve area and the surrounding waters in a national park called (Taman Nasional Karimunjawa) TNKJ.

Management of National Parks cannot be separated from the community's interests around the National Park area, where there has been a strong bond in sociocultural and economic relations between the community and the existence of the National Park (Nyirarwasa et al. 2020). Therefore, in managing buffer zones outside the area and other utilization zones, the community's interests around the area should be considered. In other words, to preserve the environment of the Karimunjawa National Park, community participation is needed. According to Harjasoemantri (1988), development cannot be carried out without the participation of the community, for everyone has the right and obligation to participate in environmental management to realize development.

The Karimunjawa National Park area's potential invites various parties to utilize the existing potential (Wungo et al. 2020). The interests of various parties in utilizing the potential of natural resources in the Karimunjawa National Park area are pretty diverse, including coral reef ecosystems, seagrass and seaweed fields, mangrove forests, coastal forests, lowland tropical rain forests, and fisheries (BTNKJ 2011). In utilizing natural resources in the Karimunjawa National Park, some are in line, and some are contrary to the conservation objectives.

The Karimunjawa National Park area is directly adjacent to the community, so there are residential residents within the Karimunjawa National Park area. This implies the need for community involvement in natural resource management activities. Besides that, the community does not fully understand the rules in the management of Natural Resources and Conservation, so it is necessary to continue to carry out socialization and counseling efforts to improve understanding and institutionalization of existing rules. Based on the above background, researchers are interested in conducting research that focuses on making local community-based management models increase their participation in the conservation of Karimunjawa National Park.

## MATERIALS AND METHODS

Determination of the research area is done through purposive sampling with villages in the Karimunjawa National Park area. This activity is carried out in all Karimunjawa National Park Management Sections, namely in the Kemujan Region I Section and the Karimunjawa Region II Section.

Researchers studied local community development and empowerment with a qualitative approach. The rationale for participation is that community development programs, projects, or activities that come from "above" or "outside" the community often fail and do not meet the needs of local communities. The reorientation of community development strategies emerged by prioritizing community participation and empowerment as a strategy in community development (Adimihardja & Hikmat 2003).

Sources of data in this study are the words and actions of critical informants/stakeholders involved in the management of Natural Resources and ecosystems in the Karimunjawa National Park area (primary data), which comes from institutions directly involved: Indonesian Tour Guide Association (HPI Karimunjawa), Association Karimunjawa Tourism Bureau (PBWK), Mosquito Village Management Group (KPDN), Rural Forestry Extension Center (SPKP), and Village Government Institutions.

The rapid monitoring method used in the research is an in-depth interview, field observation, and FGD (Focus Discussion Group) so that various data collection techniques (technique triangulation) are used. FGDs are built on the assumptions: a) Individual limitations are always hidden in the ignorance of these personal weaknesses; b) Each group member gives knowledge to each other in group association; c) Other individuals control each individual so that he tries to be the best; d) Subjective weakness lies in individual weakness which is difficult to control by the individual concerned; e) Intersubjective always approaches the best truth.

The data collected in the FGDs are:

- 1. Study of community development and empowerment models in the Karimunjawa National Park area
- 2. The data from the FGDs is used to develop a local community-based management model so that the empowerment program is carried out more effectively and its sustainability can be expected.

The FGD participants are key informants/stakeholders who directly or indirectly manage natural resources in the Karimunjawa National Park area. The FGD participants were: the Indonesian Tour Guide Association (HPI Karimunjawa), Karimunjawa Tourism Bureau Association (PBWK), Mosquito Village Management Group (KPDN), Rural Forestry Extension Center (SPKP), Higher Education Institutions and Village Government Institutions.

Analysis of data collected by in-depth interview and observation using interactive data analysis from Miles and Huberman. According to Sugiyono (2009), in qualitative research, data is obtained from various sources, using various data collection techniques (triangulation), and is carried out continuously until the data is saturated. With continuous observations, the variation in the data is very high. The data obtained is generally qualitative (although they accept quana titative data), so the data analysis technique does not have a clear pattern. Miles & Huberman (1992) suggested conductt ing data analysis using an interactive model to overcome the difficulties in conducting the analysis. It was also added that qualitative data analysis was carried out simultaneously with the data collection process. The analysis technique carried out includes three simultaneous activities: (1) data reduction, (2) data presentation, and (3) concluding (verification).

#### RESULTS

#### Analysis of the Karimunjawa National Park Community Resources Network

According to Suharto (2009), to see the strengths of the Karimunjawa National Park community in solving problems and meeting needs, it is necessary to do a Resource Network Analysis (RNA). Source Network Analysis is one of the techniques used to map and measure the relationships and interactions of various sources within a single social entity (institution or society) involving community groups or institutions, both formal and informal, which are depicted in circles. The lines connecting the circles show the interrelationships of the institutions concerned. The entire fabric of interaction and the dynamics and functioning between institutions is called a network-approach to describe and identify network quality. The results of the Source Network Analysis based on the FGD technique and in-depth interviews of several key informants are depicted in Fig. 1. It will be transformed into Source Network Analysis Matrix (AJS).

Source Network Analysis is designed to map the dynamics of interaction between internal and external sources related to the target community, namely the Karimunjawa National Park community so that an intervention plan can be made for the social functioning of the Karimunjawa National Park community.

Key elements involved in the Social Network Analysis (AJS) matrix are as follows:

1. Type and quality of sources: namely, the benefits obtained from these groups or institutions in improving

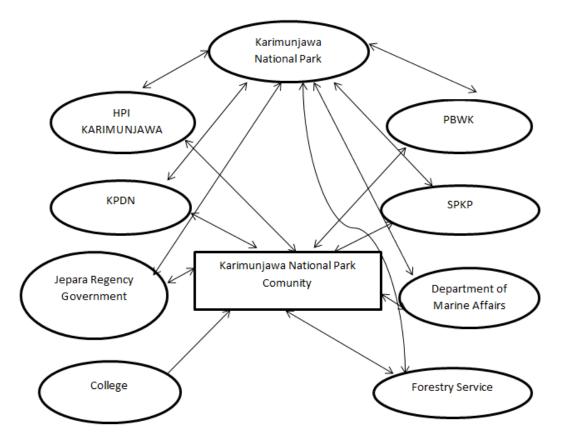


Fig. 1: Map of Community Resource Network Analysis of Karimunjawa National Park with stakeholders (institutions related to environmental conservation and management).

the quality of life of the people of Karimunjawa National Park

- 2. Accessibility is the group most frequently accessed by the Karimunjawa National Park community, the contribution and involvement of the group, and the obstacles experienced by the Karimunjawa National Park community.
- 3. Interaction between sources, namely the relationship between existing groups/institutions (robust, weak, or moderate) and the form of interaction (cooperation or competition) that occurs

The Source Network Analysis Matrix only maps the object/target community and its related external environment (group/institution). Meanwhile, the relationship between groups/institutions has not been mapped. Matrix Analysis of the Resource Network (AJS) of the Karimunjawa National Park community is given in Table 1.

## DISCUSSION

Local Community-Based Management Model in Karimunjawa National Park The scheme of community development and involvement programs is an alternative development model. The idea of alternative development appears in the development discourse as a reaction to the failure of the pro-economic growth development model in overcoming the problem of poverty, paying attention to environmental sustainability, and solving various social problems that crush the community (Zubaedi 2013).

The essence of empowerment activities is the participation of the community as actors or subjects of development ( People-centered development ). The fact shows that many still view community participation as merely the delivery of information (public information), counseling, and even public relations so that the project can run without obstacles. Community participation is not only used as a means to achieve goals but also as a goal ( participation is an end itself).

Based on the results of the Source Network Analysis (AJS) in the Karimunjawa National Park community in Table 1., it can be concluded that local communities have sociocultural potentials, local knowledge, and processes that can be developed to achieve development goals in general

No.	Institution name	Source Type and Quality	Source Accessibility	Source Interaction
1	Karimunjawa National Park	Empowerment of communities around national parks, formation of local organizations, training, equipment assistance, mentoring	Easy access but limited human resources	Medium (reciprocal)
2	HPI Karimunjawa	It is a local institution formed by the community to encourage sustainable tourism in the Karimunjawa National Park.	HPI Karimunjawa is an institution that improves the quality and competitiveness of Karimunjawa tourism and preserves natural resources and the environment in Karimunjawa.	Strong (reciprocal)
3	PBWK	It is a local institution formed by the community to coordinate tourism bureau actors so that they have formal legality as tour operators.	PBWK is an institution that assists the government in preserving and developing regional tourism, carrying out and carrying out various activities to improve the quality of human resources, and embracing all tourism actors to be involved in an independent system without destroying nature.	Medium (reciprocal)
4	KPDN	It is a local institution located in the Karimunjawa Mosquito Village that is engaged in conservation	KPDN is an institution that controls the activities of the community around the Mosquito Village	Medium (reciprocal)
5	SPKP	It is a local institution formed in the Karimunjawa National Park community to develop self-help extension workers, develop independent, productive community groups, increase community participation in conserving forests, improving the welfare of the Karimunjawa National Park communities.	Almost all Karimunjawa villages have this institution; it is just that the dynamics in each institution are different from one another.	In some villages, it is vital such as in Kemujan Village and Karimunjawa Village, while in Parang Village, it is weak (reciprocal).
6	Jepara Regency Government	Government institutions that assist with cleaning facilities in Karimunjawa villages	The government assists in the form of carts and trash cans in the four villages in Karimunjawa.	Medium (reciprocal)
7	Department of Marine Affairs and Fisheries	Government institutions that assist in the form of 2.5 tons of seaweed seeds	The seaweed seeds are distributed to villages in Karimunjawa	Medium (reciprocal)
8	Forestry Service	A government agency that assists the people of the Karimunjawa National Park	Facilitating the needs of SPKP groups in Karimunjawa National Park	Medium (reciprocal)
9	College	Is an institution that develops technology by conducting research and community service	The community still has difficulty accessing higher education institutions due to the lack of facilitators. There have been several studies and services carried out by several lecturers, both in groups and independently, but they are still partial.	Weak (unidirectional)

Table 1: Community Source Network Analysis (AJS) Matrix, Karimunjawa National Park.

Source: Primary Data processed 2022

and the preservation of Karimunjawa National Park and welfare in particular. Interactions between local institutions already have a weak to a strong reciprocal relationship with the Karimunjawa National Park Authority as the authority for managing conservation areas. Non-governmental organizations such as HPI Karimunjawa have a solid and reciprocal relationship with the Karimunjawa National Park. Universities, especially Sebelas Maret University, do not yet have strong interactions because cooperation in research and service activities is limited to individual activities. Capacity building is a development approach based on natural (local) strengths from the ground up. These strengths are the power of natural resources, economic resources, and human resources to become local capacities, namely the capacity of local governments, the capacity of private institutions, universities, and the capacity of local communities to develop the natural and economic potential of local communities (Fachrudin 2010). Local institutions such as the Rural Forestry Extension Center (SPKP), the Mosquito Village Management Group (KPDN), PBWK (Karimunjawa Tourism Bureau Association), HPI Karimunjawa (Indonesian Karimunjawa Guides Association) have the freedom to determine community needs in the context of preserving and improving welfare. The participation of government institutions, the private sector, universities, and NGOs needs to be increased in enabling, empowering, and protecting the developing and empowering local community-based communities. This process is not only the responsibility of the Karimunjawa National Park Office as the authority for managing natural resources in the Karimunjawa National Park. The community-based Karimunjawa National Park management model is presented in Fig. 2.

The Karimunjawa National Park management model in Fig. 2. emphasizes the importance of community-based management with a bottom-up and locality paradigm. This management model is based on efforts to develop and encourage the Karimunjawa National Park community structure to become more independent through justice-based regulations. The approach used in this model is management at the local level, including the participation of local communities, so that local communities can simultaneously become management actors in their communities while maintaining cultural values that already exist and are rooted in the Karimunjawa National Park community, the social structure of local communities, and the culture and traditions of the local community of Karimunjawa National Park.

The concept of community-based Karimunjawa National Park management requires knowledge of the local community, working with the community, and identifying local resources owned by the Karimunjawa National Park community. Identification of local resources, including social capital owned by local communities. Helping communities understand their problems and respond to community needs to improve welfare. The facilitation and mentoring process is not always carried out because, in time, the community is considered to have sufficient confidence so facilitation is gradually eliminated. To become new subjects in implementing local community development, they must be able

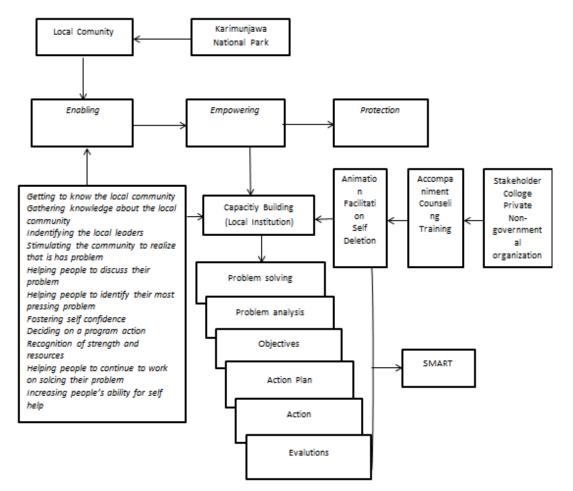


Fig. 2: The community-based Karimunjawa National Park management model.

to help themselves identify the problems they face and find the best solutions to achieve community goals (Nyirawarsa et al. 2020).

Empowerment of a community has the following meanings: 1) Authority, namely specifically empowerment means giving greater rights to specific communities; and 2) Capacity, which means energy, meaning that empowerment means "giving energy" from a solid community to a vulnerable community (Prijono & Pranaka. 1996). Community development programs often emphasize the application of CBM (Community Based Management) as a program management approach based on local community knowledge and awareness. CBM is a strategy to realize human-centered management activities. The center of decision-making regarding the sustainable use of natural resources in the Karimunjawa National Park Area is in the Karimunjawa National Park community. CBM is intended to increase the opportunities and responsibilities of the community in managing the natural resources contained in the Karimunjawa National Park. The people of the Karimunjawa National Park are the people who identify and define their needs, goals, and aspirations and make decisions for their well-being but always within a conservation and sustainable framework.

The preparation of management activities is carried out in several steps, namely:

- 1. The stage of problem exposure is carried out to determine the problems faced by the people of the Karimunjawa National Park
- 2. The problem analysis stage is to collect information faced by the Karimunjawa National Park community, and interested parties can access that information.
- 3. The stage of determining goals and objectives refers to long-term goals in which the entire community of Karimunjawa National Park plays an active role in maintaining the conservation and sustainability of natural resources and improving their welfare.
- 4. The Karimunjawa National Park community carries out the action planning stage to achieve the conservation and sustainability goals of natural resources, taking into account the potential of natural resources or the strength of local potential.
- 5. The implementation stage is implementing an action plan that has been identified/designed by the people of the Karimunjawa National Park and must pay attention to the possible impacts.
- 6. The evaluation stage is a continuous step in developing the Karimunjawa National Park community, formally and informally, every month, and annually.

The community-based Karimunjawa National Park management program strives to meet the SMART criteria, namely simple (easy to understand), measurable (measured), achievable (achievable), realistic (can be done according to local resources), and time-related (can be done according to the available time). Capacity building is understood as a process of improving or adjusting the behavior of individuals, organizations, and community systems of the Karimunjawa National Park community to achieve the goals that have been set in a timely, efficient and effective manner; especially the strategy of strengthening institutional support capacity to anticipate problems and needs. The strategy for developing the institutional capacity of the Karimunjawa National Park community can be studied through cultural, structural, and interactive aspects. Cultural aspects include existing systems, values, ethics, and norms; structural aspects related to the existence of institutions as a means of empowerment (increasing individual and collective capacity); the interaction aspect involves organizations that can develop social networks (networks) for the welfare of individuals and local communities in the Karimunjawa National Park.

# CONCLUSION

The community development model carried out in the Karimunjawa National Park community is the development of local communities. The parameters used are goal orientation, assumptions about community structure, assumptions about community interests, conceptions of public interest, orientation to power structures, client systems or change systems, conceptions of clients or service recipients, community roles, social workers' roles, change media, change strategy, change technique. According to the Source Network Analysis Map (AJS) results, local groups/ institutions in the Karimunjawa National Park, preserving the Karimunjawa National Park, and improving the community's welfare have a reciprocal relationship. The interaction between non-government organizations and universities is still fragile. Empowerment of local communities in the Karimunjawa National Park in the Karimunjawa National Park area is carried out in three ways: coral reef rehabilitation activities, mangrove forest planting, and lowland tropical forest tree-planting efforts to develop a conservation village model. The strategy uses a mezzo approach by forming local community groups such as HPI Karimunjawa, PBWK, KPDN, and SPKP. The empowerment strategy aimed at the group is the mezzo strategy with the target group, Peer Group, or Self-help group. The techniques used are education, training, and group dynamics. Empowerment aims to increase awareness, knowledge, and skills and change attitudes to overcome problems independently and in groups.

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