



Kalibiru Natural Tourism: Achieving Community Welfare Through Social Transformation

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Abstract — The country's economic development and social welfare are the main goals of every government in the world. However, long-term development planning and implementation must go through a complex process through various levels which from a macro and micro perspectives do not always produce results for community welfare. There are many cases in Indonesia where government's initiatives did not match the fields' realities and much of provided infrastructures were neglected in vain. This paper will specifically discuss how initiatives from above carried out by local governments are able to meet social innovations from below by local community of Kalibiru village, Kulon Progo Regency, Special Region of Yogyakarta, Indonesia. Through very specific social engineering based on strong motivation and local dynamics, it is able to release people from poverty by developing sustainable natural tourism village. What factors support this success and how local leaders were able to overcome structural barriers and turn them into strengths and opportunities for community well being.

Keywords — natural tourism, social engineering, social transformation, community welfare

I. INTRODUCTION

Tourism industry is one of sectors that contribute to the Gross Domestic Product (GDP) of countries in the world. There are enormous potential from tourism industry in various parts of the world in the form of increasing employment, income from foreign currency exchange transactions in addition to developing overall socio-economic aspect for the country [5]. At the G20 Indonesia Presidency seminar in Jakarta on March 9, 2022, Serhan Cevik, economist from the International Monetary Fund (IMF) revealed that tourism contributes to the Gross Domestic Product (GDP) of Maldives, either directly or indirectly, by more than 80 percent, China 60 percent, Cambodia 40 percent, Thailand 30 percent and the Philippines 20 percent. These countries account for more than 10 percent of the global average and are countries that depending on tourism sector. Tourism sector also has roles for young workers such as in Thailand as much as 7 percent, Indonesia 5 percent, India 2 percent, Brazil 6 percent and Argentina 7 percent [1]. In Indonesia, contribution of tourism sector to the National GDP

was recorded at 5.25%, with a total foreign exchange of 229.50 trillion rupiah in 2018 and absorbing 12.7 million workers in tourism sector [3].

In aggregate, tourism industry is believed to make a major contribution to the national economic growth and has great potential for increasing social welfare. But in reality, tourism industry contribution has not been able to optimally address poverty problem in one area. As an illustration Kulon Progo Regency - Special Region of Yogyakarta which has great potential for natural tourism development (starting from the coast to the mountains) as well as socio-cultural, but population's poverty rate in Kulon Progo ranks the largest compared to four regencies in Yogyakarta province which is 18.38 percent [9].

Tourism industry is a multi-dimensional industry, so its development will always be followed by developments in other sectors. In aggregate, tourism industry is believed to make a major contribution to the national economic growth. However, tourism growth is often insensitive to the decline in environmental quality, especially for natural resources-based tourist destinations such as mountains, beaches, flora and fauna. The impact of reduced or even biodiversity loss will reduce its potential or tourism environment's carrying capacity. This description implies the need to explore environmental potential for a sustainable tourism industry.

In this context tourism industry is developed inclusively. Ecotourism is one of choice modes that will make a major contribution to forest conservation. Ecotourism mode provides great opportunities for local people to participate. Considerations from involving community in tourism management include: (1) local communities are the communities that know the most about their environment, and nature has become a part of their lives; (2) local community will receive direct benefits for increasing their income and social welfare; (3) local community can play a supervisory function and at the same time maintain its sustainability; and (4) community can develop their own culture.

Ecotourism has become government's commitment which is manifested in several sectoral agency policies¹ (Ministry of

¹ Forest management policies for ecotourism include: (1) Regulation of Minister of Home Affairs of the Republic of Indonesia Number 33 of 2009 concerning Guidelines for Ecotourism Development in the Regions; (2) Regulation of Minister of Forestry of the Republic of Indonesia Number P.37/MENHUT-II/2007 concerning Community Forests; (3) Regulation of

Minister of Environment and Forestry of the Republic of Indonesia Number P.13/MENLHK/SETJEN/KUM.1/3/2019 concerning Nature Tourism Business in Wildlife Sanctuaries, National Parks, Grand Forest Parks, and Nature Tourism Parks; (5) Minister of Tourism and Creative Economy Regulation Number 9 of 2021 concerning Guidelines for Sustainable

Home Affairs; Ministry of Forestry and Environment, Ministry of Tourism and Creative Economy). In developing ecotourism, local communities will act as subject in tourism management. This means that local community will be played as a partner of government and business institutions. Further and based on these policies, the Indonesia's natural conditions have great potential for ecotourism development to improve local communities' welfares.

When government provides opportunities, then the problem is how communities are prepared to transform from agrarian society into tourism industry, how is the community's ability to adapt to the new management in tourism world. This need to be realized considering that between an agrarian society and tourism industry community, there are differences in characteristics both in terms of perspective (mindset) and behavior. This implies that increasing knowledge and ability of community in the framework of social engineering at community level is needed with the consequence of involving various institutions related to ecotourism development to take part. Therefore, a study of community's experience in the framework of social engineering from an agrarian society to an ecotourism industrial society is very necessary.

In the framework of revealing data and information about social engineering success, this research takes the case of ecotourism development in Kalibiru, Hargowilis Village, Kokap District, Kulon Progo Regency as part of development of Borobudur-Yogyakarta areas and its surroundings. Development of the areas has been used as one of bases for placement of Yogyakarta International Airport (YIA) which has been planned since 2011².



Figure 1. Kalibiru Ecotourism Locations in the Development Area Borobudur-Yogyakarta and Yogyakarta International Airport (YIA)
Source: Writer 2022

II. RESEARCH METHOD

This study aims to have optimum understanding and describe social engineering efforts in the context of an agrarian society towards a tourism industry community through an ecotourism model in the form of protecting forest areas through ecotourism activities for Kalibiru community, Kulon Progo Regency in Sepecial Region of Yogyakarta. Furthermore, this study aims to explore the processes and ties of various actors, including central government, regional governments, agencies, community activists, local

communities, non-governmental organizations through a series of initiatives to make changes for the good and welfare of humans and nature. One method that is able to support the achievement of this goal is Exploratory Analytical Descriptive Method in which through various documentations and case studies the researcher(s) try to see various developments in the historical chronological dimension of time as well as a broad picture and detail of the initiative linkages between various actors that result in change movements towards the realization of public welfare vision.

Combination of exploratory analysis between chronological and functional elements is expected to complete efforts in describing the phenomenons between structural factors of government policies and factors of cultural humanism, spirit and local wisdom of the people who have lived for hundreds of years. Relevant concepts are considered to be used in explaining social engineering process as well as being used as a structure that can strengthen the foundation of this study, namely combining historical, sociological, ecological realities and modern bureaucratic development engineering without leaving the aspirations and dynamics of local processes. Concepts such as "social engineering", "ecotourism", "sustainable forest", "sustainable development" and the Javanese spiritual "*Hamemayu Hayuning Bawana*" are very important concepts in the process of exploring the dynamics that occur. It is possible that contents analysis of various community discourses will later on be enriching to explain the inner relationship between Kalibiru local people and their macro cosmos, namely the forest area where they live and living nature of the Creator.

III. FINDING AND DISCUSSION

Social Engineering in Sustainable Forest Development and Kalibiru Eco-Tourism

Social Engineering is simply understood as "a series of systematic actions to bring about social change". Although initially the notion of engineering was more widely used in the engineering field, but it got a broader meaning when applied to social objects to describe the process of social transformation of a society [10]. Engineering efforts are believed to arise because of problems that are found and want to be solved so that the meaning of engineering term is in a positive nuance in the political context of social transformation towards a better quality of life [12]. Concept of Social Engineering in this paper is intended to describe the process, dynamics and ties of various actors in opening up space for development of the so-called Kalibiru ecotourism initiative until it finds its final form now.

There are several components that want to be shown in the social engineering process so that Kalibiru social transformation occurs as expected, namely the existence of a support system in form of central/regional government policies, infrastructure development as a means of opening the exclusivity of Kalibiru area, local wisdom and implementation of modern ecotourism management.

Geographically, Kalibiru residents live in the Menoreh hills with an altitude of 450 meters above sea level. The location is about 40 kilometers from Yogyakarta city and 10

Tourism Destinations

² Presidential Regulation of the Republic of Indonesia Number 32 of 2011

concerning Master Plan for the Acceleration and Expansion of Indonesian Economic Development (MP3EI) 2011-2025 [6]

kilometers from Wates city. Located on the west side of Yogyakarta, Kali Biru and the Menoreh mountain range extends to Kalibawang District. As in general, agrarian rural communities, since generations, residents have lived from the forest and surrounding nature with limited land ownership. With an isolated location at the height of Menoreh, since the Dutch colonial era until Indonesia's independence in 1945, it can be said that people lived subsistently from garden products and forest wood.

Forests as a life support for residents experienced dynamic status changes from time to time due to government policies that do not always benefit residents. If during period 1930- 1945 residents experienced what is called "forest area closure" and had to leave the area because the Dutch government would only use it solely for timber products exploitation for their interests. During 1945-1949 Government of Indonesia made the covered area as State forest and once again the community could not use it for their life and welfare. During 1949-1964 due to reforestation program the forest condition was improved and was able to function properly as a water catchment area. There was no drought because the springs were maintained and no damages to hillsides (landslides) and biodiversity (both flora and fauna) was maintained. During 1964-2000 the forest condition had declined due to destruction. Political situation related to G30S-PKI riots and the community's economic needs made Kalibiru forest area an arena for timber theft, logging supported by unscrupulous foreman and weak government control over forest resources which reached its peak in 1977 economic crisis. Kalibiru forest area no longer reflects its status as a protected State forest.

Efforts to restore forest conditions have been carried out by government but have not brought the expected results, especially because the community through farmer groups did not get guaranteed utilization while community lives from the forest. This anxiety is especially felt by local leaders who feel their "misery" and dark future. Movement of some local figures supported by Damar Foundation (NGO) for a long time period (1999-2007) resulted in the status of Community Forest (HKm). With this status according to Regulation of Minister of Forestry of the Republic of Indonesia No.P-88/Menhut-II/2014 [7], utilization of Kalibiru state forest will be aimed at empowering people welfare living in and around the forest area.

In this process with community involvement through Farmers Groups, Damar Foundation and Government Policy, local stakeholders and leaders are able to make a transformation towards sustainable forest governance in the form of (i) Institutional Management (ii) Area Management and (iii) Business Management. An introduction to modern management takes place through meetings for the need to organize resources and aspirations for welfare goal and local wisdom about the importance of forest conservation as a source of community life.

In general, Kalibiru's institutional management is carried out by (i) refreshing the board formation with organizational completeness as needed, (ii) making group rules that regulate rights, obligations, and sanctions against members; (iii) create a State Forest Land Management Plan; (iv) conduct regular (monthly) meetings as a means of discussion, evaluation, and

friendship between members. Meanwhile, Area Management is implemented by (i) applying group rules in forest areas, (ii) distributing shares to members; (iii) organizing and managing land according to conservation principles; (iv) planting forestry plant seeds with agreed types and spacings; (v) putting numbers on the remaining trees as a joint control tool to prevent forest wood theft. In managing business management, development is carried out related to increasing productive economy in the form of (i) establishing a Cooperative Business Entity; (ii) planting productive crops (intercropping and *empon-empon*/herbs); (iii) planting forage fodder (HMT- *Hijauan Makanan Ternak*) on forest terraces; (iv) reactivating livestock business and home industry [11].

For local leaders and Kalibiru community, the journey for obtaining a permanent (definitive) HKm permit was a long and full of struggles. The community's local wisdom that forests are part of their lives that must also be preserved is a factor that cannot be ignored. Residents are aware that forest destruction will have an impact on the environment and their lives. Destroyed forests will eliminate Sermo reservoir springs and will abolish fauna and flora. The residents' sense of belonging to the forest area is so strong that they never stop trying to improve their welfare.

When on February 15, 2003 the Government through the Regent of Kulon Progo issued a Decision Letter on Temporary Permits for Community Forest Management to 7 Forest Farmer Groups (KTHK_m) for a period of 5 years, residents realized that the struggle for prosperity was not over. Bearing in mind that during this time period, KTHK_m must implement new management arrangements, namely (i) farmer group has a Cooperative Legal Entity; (ii) forest land must have been planted with forest plants in accordance with management plan of each group; (iii) farmer institutions must operate according to mutually agreed internal rules; and (iv) forest security must be maintained to prevent further destruction and timber theft.

To support this process, Kulon Progo District Government established the Community Forest Communication and Consultation Forum (FKKHK_m). This forum consists of multi-stakeholder elements in Kulon Progo Regency, which representatives from Government, NGO, and community (representatives of HK_m Farmer Group). FKKHK_m aims to (i) serve as a means of communication and consultation for multi-stakeholders on Community Forest issues; (ii) facilitating the needs of farmer groups holding HK_m permits in Institutional Strengthening; (iii) as an evaluation medium for the development of State Forest conditions; and (iv) provides recommendations to Government on evaluation results of temporary HK_m permits' implementation.

FKKHK_m also functions to provide recommendations to Government to grant permanent (definitive) permits to seven (7) Cooperatives/KTHK_m temporary permit holders. Based on Decree of Forestry Minister No: SK. 437/Menhut-II/2007 [4] concerning Determination of Community Forest Work Areas in Kulon Progo Regency, Yogyakarta Special Region, Kulon Progo Regent then issued Community Forest Utilization Business Permits (IUPHK_m) to seven (7) Cooperatives/KTHK_m in Kulon Progo.

Table 1: KTHK_m Kalibiru Cooperatives

No	Cooperative	Address	Land Area	Status
1	Sido Akur	Hargowilis Village, Kokap	20,6 Ha	Protected Forest
2	Menggerrejo	Hargowilis Village, Kokap	12,1 Ha	Protected Forest
3	Mandiri	Hargowilis Village, Kokap	29,7 Ha	Protected Forest
4	Rukun Makaryo	Sendangsari Village, Pengasih	35,8 Ha	Protected Forest
5	Suko Makmur	Sendangsari Village, Pengasih	15,8 Ha	Protected Forest
6	Taruna Tani	Hargorejo Village, Kokap	43,2 Ha	Protected Forest
7	Nuju Makmur	Hargorejo Village, Kokap	39,6 Ha	Protected Forest

Source: <https://id.wikipedia.org/wiki/Kalibiru>

The dynamics within Kalibiru community continue. Assistance to KTHK_m is also continuously working, thanks to the driving force's enthusiasm and hard work. In Kalibiru the five (5) main warriors are Kamijan (60 years) [2], Parjan (65 years), Sukidal (60 years), Sudadi (56 years) [8] and Nasir (47 years). They don't stop thinking about how the community can get additional income apart from the forest they have maintained which in the long term will only show results³.

Kalibiru Nature Tourism Development

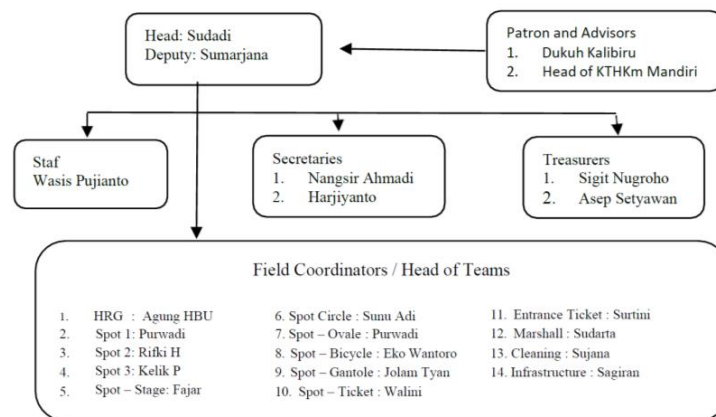
Together with KTHK_m leaders they formed Lingkar Community (Komunitas Lingkar). The community and Lingkar community found that the use of Kalibiru's natural beauty could be developed for nature tourism. With the Regency Government's approval and financial support, in 2008 the initial plan for Kalibiru nature tourism development was started amid pessimism and doubts about whether this effort would get a response from broader community. In 2009 through mutual cooperation and self-management principal, Kalibiru nature tourism began to be visited by domestic tourists. With the social media power, Kalibiru "spot" which has not been found in many other tourist locations has received an extraordinary "market" response both locally and abroad.

At this point it becomes interesting to observe what kind of "social engineering" process the actors are capable of carrying out?

Nature tourism or ecotourism is not a mainstream tourism trend. This industry is an alternative tourism program and does not stop at inviting visitors to visit nature, but also achieves awareness about limited natural resources and how to maintain sustainable development.

With the leadership of Sudadi, one of Kalibiru community's movers, modern organizational management was introduced as part of Kalibiru nature tourism management. Sudadi also involves young people to fill all management components from the lowest entrance post to various locations/spots to enjoy the scenery around Kalibiru, including Sermo Reservoir, forest areas with various floras, expanse of sky and clouds, mountain fresh air and "tracking" experiences, and of course the documentation experience in various moments.

Sudadi formed a management structure for Kalibiru tourism objects (Figure 1) and mobilized residents to open businesses in various forms: food/beverage stalls, lodging, gazebos, local herbs to complement main activities of tourist sights attractions. From time to time with increasing income, the facilities construction is carried out in the form of management offices, computers, transportation (jeeps, motorbikes), communication equipment, parking locations, road repairs and so on.



³ Since KTHK_m members have been involved in maintaining Kalibiru forest area, among others, in the form of changes in cropping patterns, which were originally wood-producing plants, now multipurpose plants and fruits are propagated with the aim of farmers getting benefits because in the protected forest system there is no profit sharing system for farmers. With government assistance in the form of intercropping seeds, fruit trees, and plantations, various empon-empon/herbs, barren

forest areas are gradually becoming greener. The persistence of farmer groups cannot be ignored. Not only plant seeds, government also injected cooperative business capital and cattle breeders as well as other assistance that supports land conservation and the community's economic sector.

Figure 2. Management Structure Kalibiru Tourist Attraction Manager (Field Observation August 2022)**Kalibiru Community Social Engineering Model**

Social transformation process of Kalibiru community can be described in the form of a chart below where the changing conditions of a poverty situation through a series of planned actions with various stakeholder actors, both Central Government, Regional Government, Kalibiru Community and Non-Governmental Organizations called social engineering can be transformed into prosperous conditions through components of sustainable forest management, ecotourism management and a vision of sustainable development.

**Chart 1.** Kalibiru Community Transformation Through the Social Engineering Process

Interaction between various stakeholders takes place continuously with various dynamics that are not always in line, but various structural obstacles can be turned into a challenge that is faced together.

IV. CONCLUSION

The process of social engineering for Kalibiru people can be carried out with an unflinching spirit and is an encouragement for the interests of the community that is integrated in all the efforts of local leaders. The challenge is not over when they manage to sustainably manage forests and protect them through ecotourism efforts because they realize new challenges must be faced, such as the projected reduction of reservoir water discharge that endangers the existence of the community, the threat of a prolonged COVID-19 epidemic and restoring the natural tourist attraction of

Kalibiru with various innovations and new nature education. A new social engineering process awaits with new challenges.

REFERENCES

- [1] Hidayat, A. A. (2022, 03 10). IMF Sebut Pemulihan di Sektor Pariwisata menjadi Penopang Ekonomi Global. Retrieved 07 04, 2022, from Tempo.co: <https://bisnis.tempo.co/read/1569076/imf-sebut-pemulihan-di-sektor-pariwisata-menjadi-penopang-ekonomi-global>
- [2] Kamijan, Juli 20, 2022 in Kalibiru Village, source person
- [3] Kementerian Pariwisata dan Ekonomi Kreatif. (2019). Laporan Kinerja Kementerian Pariwisata dan Ekonomi Kreatif Tahun 2019. Jakarta: Kementerian Pariwisata dan Ekonomi Kreatif.
- [4] Menteri Kehutanan Republik Indonesia. (2007). Keputusan Menteri Kehutanan Nomor SK.437/Menhut-II/2007 tentang Penetapan Areal Kerja Hutan Kemasyarakatan Di Kabupaten Kulon Progo Provinsi Daerah Istimewa Yogyakarta. Jakarta.
- [5] Neeta Rath and Rashi Gupta. (2017). *Environmental Impact of Tourism*. IJARIE-ISSN(O)-2395-4396 Vol-2 Issue-3 2017, 50-53.
- [6] Republik Indonesia. (2011). Peraturan Presiden Nomor 32 Tahun 2011 Tentang Masterplan Percepatan dan Perluasan Pembangunan Ekonomi Indonesia (MP3EI) 2011 – 2025.
- [7] Menteri Kehutanan Republik Indonesia. (2014). Peraturan Menteri Kehutanan Republik Indonesia Nomor: P.88/Menhut-II/2014 Tentang Hutan Kemasyarakatan.
- [8] Sudadi, July 14, 2022 in Kalibiru Village, source person
- [9] BPS Yogyakarta. 2022. Persentase Penduduk Miskin menurut Kabupaten/Kota (Persen), 2020-2022. BPS: Yogyakarta. <https://yogyakarta.bps.go.id/indicator/23/142/1/persentase-penduduk-miskin-menurut-kabupaten-kota.html>
- [10] <https://www.social79.com/2020/05/definisi-engineering-social-social.html>
- [11] <https://www.mongabay.co.id/2019/01/30/transformati-kalibiru-dari-subsistem-jadi-masyarakat-sejahtera/>
- [12] Rakhmat, J. (2013). Psikologi agama: sebuah pengantar. Mizan Pustaka.

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