

GREEN ECONOMIC AND COMMUNITY-BASED TOURISM DEVELOPMENT IN PAPUA, INDONESIA

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Abstract

The green economy is currently being implemented globally in response to the need for global societies to ensure a balance of development between economic and environmental issues, as well as local communities. Community-based tourism may be required to ensure Papua's long term development. Local governments have committed to managing their natural resources for development in accordance with green economic principles. Several donor agencies have contributed to tourism development through the green economic program in Papua especially in Jayapura, Jayawijaya and Nabire. This study it is attempted to investigate the role of green economic programs on tourism development in local communities. A political traditional structural system regarding the patterns of agricultural farming in the three regions was found in this study. The green economic program is economically beneficial to the indigenous people. The green economic program through its implementation is growing the cocoa, coffee and sago supported tourism development due to the role of stakeholders and the participation of local communities.

Keywords: Green economic, Community-based tourism, Development, Papua

JEL Classification: Q01, Q44, Q56

1. INTRODUCTION

Indonesia, the largest archipelago, is abundant in natural resources that spur economic growth. Economic success, however, has come at a high environmental cost. Rapid land use change and reliance on fossil energy make Indonesia one of the world's largest greenhouse gas emitters (Tamen, Molidya, & Nope, 2021). Deforestation and pollution are putting pressure on its mega-diverse ecosystems. Progress towards sustainable green economic growth policy development has been promoted in order to minimize the effect of climate change.

Papua province is located in the eastern part of Indonesia and contains lush rain forests. The Papua region shares a border with Papua New Guinea, Australia and the Pacific Ocean causing the region to have a significant role of protecting the global environment. Reported from the Conservation International (DeSmit, 2015), forest in Papua cover around 90% of the land with areas that remain unexplored. Papua consists of 28 regencies and 1 municipality regency. Papua is also abundant in natural resource deposits especially in the mining industry. The forests in some areas of Papua have been cleared for oil palm plantations (Tihamayati, bin Mohamed Maidin, & bin Husin, 2022). Of course, the existence of many multinational companies as

well as domestic firms affect the environment in Papua. Massive exploitation of natural resources from the multinational companies may lead to environmental damage.

The government of Papua province has committed to implementing sustainable development goals (SDGs) for development of the province by signing “the Manokwari Declaration” together with West Papua province in 2018. Based on the declaration, both provinces have the obligation to protect their environment during the development process. With respect to SDGs, The government of West Papua, Indonesia has declared it as “Conservation Province”. This indicates that the West Papua province has to manage its natural resources wisely in order to avoid environmental derogation. Meanwhile, for Papua province, it has also committed to development with concerns of environmental protection evident through its adopting of the green economic program long term strategic planning as well as through the document of “one hundred visions of Papua” which was announced by the governor of Papua in 2018.

International community’s support “the Manokwari Declaration” because they assume that it not only protects the local environment but also protects the global environment. In order to support SDGs and tourism programs in Papua, several donor agencies (UKAid, the Asia Foundation) are participating to help the Papuan governments by introducing green economic programs for empowering local communities to participate in the agriculture sector as well as promoting tourism in Papua. In addition to the beauty of beaches, forests and ecological biodiversity in Papua, the province also has potential commodities in the agriculture sector which can improve the welfare of local communities. There are several regencies implementing the green economic program such as Jayapura, Jayawijaya, and Nabire.

The purpose of this paper is to investigate the issues and challenges for implementing the Green Economic Growth (GEG) program on promoting tourism in Papua, especially examining the pattern of agricultural development, political structure of Papuan communities, economic and social impacts, GEG, stakeholder roles on implementing the green economy program and also investigate community-based tourism development in the regencies of Jayapura, Jayawijaya and Nabire.

2. GREEN ECONOMIC AND TOURISM DEVELOPMENT: LITERATURE REVIEW

Currently, the world is facing many challenges especially how to continue to develop and find balance between human needs and environmental protection all whilst considering the future generation. Significant challenges occur because both developed and less developed countries are expanding their economic activity hand in hand with the growing global population; and addressing an environmental issue. Therefore, green economic growth is the point at which these two challenges cross paths, and it is about maximizing the opportunities to address both economic and environmental issues at the same time (OECD, n.d.).

As part of promoting economic growth and development, the Green Economic Program also can be implemented for tourism development which will contribute to the local community by providing job opportunities and improving well-being as stated during the Rio United Meeting

on Environment that the Green Economic Program is able to ensure that natural assets provide the resources and environmental services that people rely on for their well-being. Its emphasis is on encouraging economic growth, employment, and poverty alleviation while also ensuring the health of the earth's ecosystem (OECD, n.d.; United Nations, 2012).

According to the United Nations Environment Program (UNEP, 2008), the GEG program is an approach that enhances the population's well-being as well as social equity and at the same time reduces environmental hazards and ecological scarcity. In other words, its focus is on low-carbon, efficient and clean production and inclusive consumption and outcomes based on sharing, circularity, collaboration, solidarity, resilience, opportunity, and interdependence (PAGE, 2019). It should be noted that this program offers a practical and adaptable approach to achieving concrete, measurable progress across its economic and environmental pillars while considering the social consequences of green economies' growth dynamics. Investment and innovation will catalyze the establishment of GEG, which will underpin long-term growth and create new economic opportunities (OECD, 2011). Furthermore, the GEG program can also be a useful tool for designing national policy for promoting establishment for improving human development and the environment.

To conserve the environment and increase the income for local communities, tourism is a viable alternate solution for sustainable development in many countries. Tourism is seen as a potential sector for driving global economic growth (Toube & Araújo-Vila, 2022). Tourism and sustainable development are hand in hand promoting economic and ecological growth simultaneously supporting the progress of social development (Premović & Pejanovic, 2016). For example, in most regions, such as Africa, Latin America, Asia-Pacific, and Europe, there is an emerging tourism practice in designing and implementing national green economy programs and strategies. The aim of this practice is to collaborate with the tourism industry that improves the welfare of local communities. In other words, the green economy program will bring benefit to the local people not only as a source of income but also in protecting the biodiversity of their nature as well as heritage.

It is clear that there is a link between green economy growth and tourism in supporting sustainable development. It has long been known that the tourism industry should focus on the issues of environmental and social aspects that have spawned "humanization of travel" (Weiler & Hall, 1992). Another meaning from green tourism is that it emphasis on sustainable development and stopping damage caused by tourists. According to Azam and Sarker (2011), green tourism is an approach to consider regarding future needs of sufficient environmental, economic, social and cultural resources. Meanwhile, Fandeli (2000) argues that eco-tourism should conserve the environment, and preserve the life and welfare of the local people.

The Government of Indonesia has been committed to implementing ecotourism in order to promote the green economy. As stated at the Ministry of Culture and Tourism of Indonesia, the objective of ecotourism is to support the efforts of environmental preservation (nature and culture) and increase public participation in the management, thus providing economic benefits to the community and local government (UNESCO, 2009). The notion of ecotourism includes preservation, education, economy, and participation of the local community. In addition, the

Indonesian government has also implemented green tourism which focuses on tourism that is sustainable, environmental, economic, social and cultural (Azam & Sarker, 2011).

Green economic growth can also be implemented in ecotourism which emphasizes various aspects of ecotourism to preserve the environment, culture, economy, and participation of communities and governments. Basically, the concept of ecotourism consists of four aspects namely preservation, education, economy, and participation of community.

Recent development in the tourism industry causes the sector to become more concerned with the issue of the environment by introducing sustainable tourism. As pointed out by Hawkins and Middleton (1998), sustainable tourism refers to sustainability of equilibrium where tourism needs and protecting tourism destinations for future generations are considered. This definition supports sustainable development and puts the issue of the environment as a major motivator for implementing sustainable development.

Butler in 1991, pointed out that sustainable tourism focuses on tourism management and adopted the sustainable development approach which places concern on nature, development, social and culture, and the local community with the aim of improving the welfare of societies. Meanwhile, Zamfir and Corbos (2015) argued that sustainable tourism should consider the future impact such as those that are economic, social, and environmental in nature, meeting the various needs of tourists, industries, local communities, and the environment. Moreover, the role of stakeholder is important for implementing sustainable tourism, therefore the government and the private sector should take into account enhancing sustainable tourism in order to avoid environmental damage in the future (Holloway et.al, 2006).

The green economic program has been gaining attention from the government of Indonesia and local government of the Papua province. The Indonesian government has made several collaborations for implementing the Green Economic Program in Indonesia. The objectives are to allocate some funding for tackling the impact of climate change on economic trajectory that can contribute to a potential loss of up to 20% of GDP (BAPPENAS, 2019) and to maintain a sustainable development approach that balances economic, social, and environmental aspects. In the context of sustainable development and poverty eradication, the green economy approach is one of the essential tools available for achieving sustainability and assisting in achieving the SDGs.

The Government of the Republic of Indonesia first declared its commitment to mainstreaming low carbon and green economies at the UNFCCC COP 23 in Bonn (BAPPENAS, 2019), and it was re-affirmed again at the Low Carbon Development (LCD) and Green Economy Conference in Bali in October 2018. The government believes that low-carbon development and a green economy are the keys to boosting GEG without jeopardizing environmental sustainability or social inclusion. As part of its strategic planning and policy, the government has been implementing the Low Carbon Development Initiative (LCDI) framework since 2018.

In general, the Indonesian government has LCDI which was stated in the National Medium-Term Development Plan 2020-2024. Some points have implications for green economy including commitment from stakeholders (governments, donor agencies, and academicians),

inclusive development, and greenhouse gas emission reductions, also ensure maintenance and restoration of natural capital in the form of healthy functioning ecosystems as a basis for sustained economic growth. Furthermore, strong support from the Indonesian government priorities for sectorial financing and effectively implementing low carbon development especially in energy and land use, which results to 80 percent of Indonesia's greenhouse gas emission. It is expected that Indonesia will benefit by implementing green economy policy regarding for the shift to a long-term sustainable growth path which is expected to yield significant social, economic and environmental gains for the country.

In the context of Papua, the provinces have implemented the Green Economic Program since Papua has adopted a sustainable development strategic plan stated in the Papuan development 'Vision 2100' and also "Blueprint for Sustainable Land Used in Papua" document. The purpose of this vision is to establish an economic model by considering economic and ecological growth and sustainable development for improving the welfare of the local community especially the indigenous people.

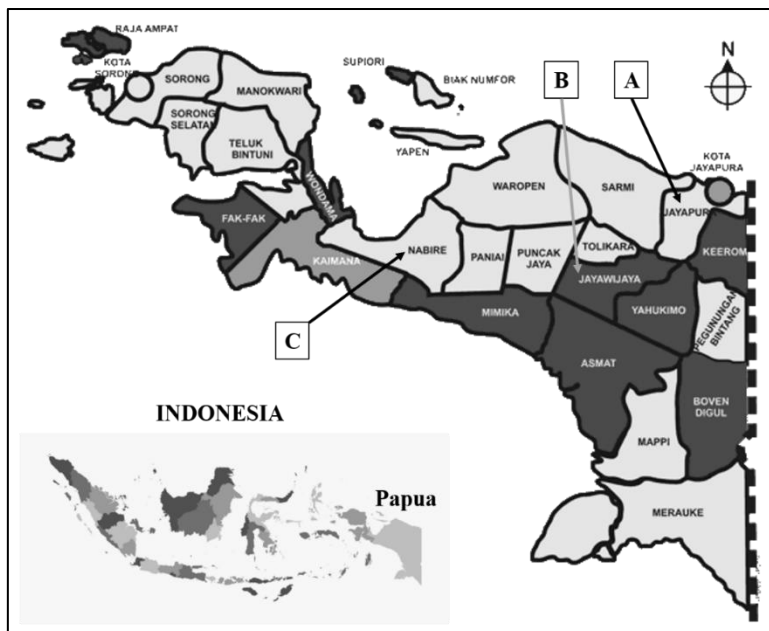
Papua province has adopted development strategy which can be categorized by five cluster areas referring to ethnic group since 2014. The cluster representative of cultural background where in Papua around 250 ethnic groups are distributed in the south, north and the highland areas. The cluster of development based on ethics or adat in Papua consist of Me Pago, La Pago, Anim Ha, Mamta and Saireri. Under development the 5 cluster based Papua province is committed to implementing sustainable development "Green Growth based on 5 Cluster Adat", and also focusing on development technology concerning the environment. Furthermore, in terms of green economy policy, the local government of Papua has a very ambitious idea of spatial plan as part of "Papuan Vision of 2100" where maintaining 90 percent of the territory under forest with two-thirds of this being totally protected.

In Papua province, green economic growth (GEG) program was implemented by donor agencies in order to support sustainable development in Papua. The United Kingdom Aid (UKAid) and the Asia Foundation have developed programs in the agricultural sector by empowering indigenous people by participating in the agribusiness sector especially growing cocoa, coffee and sago. For Jayapura regency, the GEG program focuses on agricultural development in cocoa crops. Meanwhile in Jayawijaya regency, there is an emphasis on the production of coffee and in Nabire regency, the green economic growth focuses on the production of sago.

3. DATA AND METHODOLOGY

Papua province is located in the eastern part of Indonesia. It shares one land border with Papua New Guinea to the east, the Pacific Ocean to the north, Australia to the south, and Maluku Island to the west. This province has 29 regencies and a municipality. However, this study selected three regions namely, Jayapura (A), Jayawiya (B), and Nabire (C) as shown in Figure 1. The reason for the selection in the northern region is their achievement in implementing the green economic growth programs.

Figure 1: Research area



Source: Papua Provincial Government

Here is a brief overview of the research areas. Jayapura regency’s capital city is Sentani. The regency has borders with Jayapura city and Keerom regency to the east, Sarmi to the west, Pegunungan Bintang to the south, and the Pacific Ocean to the north. Jayapura has 19 districts. The population of Jayapura regency is 125,975 (Central Bureau of Statistics of Jayapura, 2021).

The role of the agriculture sector in Jayapura regency relatively sustains the Jayapura regency economy. In 2020, the contribution of the agriculture sector constituted about 19.57% of the total gross domestic product (GDP) of Jayapura regency (Central Bureau of Statistics of Jayapura, 2021). The agriculture sector has become a major sector in Jayapura regency because the regency was included in the transmigration destination program which occurred in the 1980s, where part of President Suharto’s strategy was to send high population density regions in Jawa to low density population areas such as in Jayapura. Another factor is that agriculture is an important sector in Jayapura regency is due to the existence of oil palm plantations which are operated by PT Sinar Mas. It is no surprise that many people in Jayapura work in the agriculture sector. Jayawijaya regency is located in the highland areas of Papua. It shares a border with Tolikara regency in the north, Asmat regency to the south, Yahukimo to the east and Pucak Jaya to the west. The capital city of Jayawijaya is Wamena. The population of Jayawijaya regency is 269, 553 people, meanwhile the poverty rate in the regency reached 28% (Central Bureau of Statistics of Jayawijaya, 2021). The agriculture sector is the dominant sector in Jayawijaya regency which contributes to about 46% of the total GDP. The capital city of Jayawijaya is Wamena and is a transit area for going to other regencies in the highlands. Therefore, Wamena has an important role for distributing goods to other regencies because access is much easier compared to other regions in the highlands.

Nabire regency is surrounded by Manokwari regency to the west, Kaimana regency to the south, Paniai and Waropen regencies to the east, and the Pacific Ocean to the north. Nabire has 15 districts (Central Bureau of Statistics of Nabire, 2021). The population of Nabire regency was 169,136 people in 2020 and the poverty rate in the regency reached 24.1%. The mining sector is giving a substantial contribution to Nabire's economy which in 2022, the mining sector contributed to about 19.5 percent of the total GDP. Several mining companies operate in Nabire regency especially in the Topo district. Local people are also involved in mining in the Topo region. Moreover, similar to Jayapura regency, Nabire was also a transmigration destination. Therefore, Nabire regency also relies on the agriculture sector because the sector also gives substantial support to Nabire's economy.

As previously mentioned, this study was carried out in the regencies of Jayapura, Jayawijaya, and Nabire. The reason for selecting these regions was because they have experience implementing green economic growth programs from the donor agencies (UKAID and the Asia Foundation). In Jayapura regency, the districts Nimboran and Kentuk were selected for the research, meanwhile, in the Jayawijaya regency, Piramit and Asologaima were selected. Then districts of West Nabire and Teluk Kimi were chosen from Nabire regency. Another reason for choosing the three selected regencies in Papua was because the regencies have many places of interest and events or festivals that attract tourism to the regions. For example, in Jayapura regency there is a festival called Danau Sentani (Sentani Lake), in Jayawijaya Lembah Balliem Festival. In Nabire there can be found beautiful beaches and can also whales and turtles in Teluk Cenderawasih.

4. FINDINGS AND DISCUSSIONS

Most of the data for this analysis was obtained from fieldwork in the three selected regencies in Papua province from March to June 2022. The total number of respondents was 154 indigenous people working in the agriculture sector. The following table presents the distribution of the samples in the five regencies.

4.1 Description of Respondents

This research involved 154 participants where focus group discussions (FGDs) were conducted in order to gather the data. The participants were selected based on their experience implementing the GEG program in the three regions (Jayapura, Jayawijaya, and Nabire). This study targeted young and married men and women as this is the age group mainly identified as receiving benefits from green economic growth programs from donor agencies (UKAID and the Asia Foundation). As previously mentioned, this research was conducted in three regencies and two districts of each regency as presented in Table 1. The study was carried out in 6 villages such as district of Nimboran and West Sentani in Jayapura regency, districts of West Wamena and Kurima in Jayawijaya regency and districts West Nabire and East Nabire in Nabire regency. As the study was conducted in remote rural villages of the study districts, arrangements were made to conduct focus group discussions (FGDs) at places which had easy access to participants. In order to gather the data from FGDs, the interviews were conducted with the participants in the Indonesian language and the data collected consisted of

demographic, social and economic data. To conduct the interview, there were a few qualified researchers comprised of both male and female moderators. The moderators facilitating the FGDs were research assistances trained and experienced in social science research techniques and were fluent in the local languages.

The distribution of respondents was classified by age and gender. The data shows that the respondents were dominated by the group aged 38 to 51 years old which consists of 62 respondents consisting of 32 female and 30 male respondents. Meanwhile, the the young group aged (18-34 years old) consisted of 58 respondents where the total number of male respondents was equal to the total number of female respondents both being 29 respondents. And the total number of the age group 55 years old and above was 34 respondents where the total number of respondents for the males and females were also equal (17 respondents).

Table 1: Distribution of Respondents Classified by Age and Gender in the regencies of Jayapura, Jayawiya and Nabire (N= 154)

Regencies		18-34		38-51		55 Year >	
		% Male	% Female	% Male	% Female	% Male	% Female
Jayapura	Nimboran	13.8	17.2	16.7	18.8	17.6	17.6
	Kemtuck	17.2	13.8	16.7	15.6	17.6	17.6
Jayawijaya	Piramit	17.2	13.8	16.7	15.6	17.6	23.5
	Asologaima	13.8	20.7	20.0	18.8	11.8	11.8
Nabire	Nabira Barat	17.2	10.3	16.7	18.8	17.6	17.6
	Teluk Kimi	20.7	24.1	13.3	12.5	17.6	11.8
N=154		n = 29	n=29	n=30	n=32	n=17	n=17

4.2 The Pattern of Agriculture of Indigenous People of Papua

The Papuan community has long been growing crops and staple using the traditional method which considers “the local wisdom” where the Papuan communities believed the forest to be like a “mother” because the forest provides all the Papuan community needs for living such as yielding crops, and hunting for their life. This means the pattern of agricultural development in Papua has adopted the issues of conservation which has become important to protect the environment and also has become a tourist attraction in exploring the nature of forest and the sea of Papua. Papua has a diversity of cultures because it has many indigenous tribes. As Mansoben (1995) pointed out, Papua has 240 tribal groups over the highlands and the coastal low-land areas. Papuan tribes respect adat (traditional values) in their daily activities. Historically, the concept of adat, introduced by President Soekarno, describes the cultural connection uniting the ethics and values of the many and various Indonesian groups. From the West Papuan communities’ perspective, adat means community harmony, family prosperity, environmental preservation and land ownership organization (Howard, McGibbon, & Simon, 2002). Community harmony means harmony at all levels of Papuan life. If there is a conflict between families within a tribe, a tribal chief or Kepala Suku according to adat, has the crucial role of gathering indigenous community members to meet and discuss ways of reducing the tension and restoring peace between the families within a tribe. Moreover, adat can also determine the way indigenous communities manage their land, allocate resources, divide labor

between men and women, schedule the harvest, perform marriage rites, mediate disputes, and pay compensation for crime.

Another meaning of adat is family prosperity. This means that indigenous people should behave wisely in indigenous communities for the economic welfare of their families. Men and women should share and understand each other in their separate roles. In the traditional agricultural system, the task of men is to find suitable land for gardening and clear the land, and the task of women is to look after the gardens. Men hunt wild pigs and women look after their children. Adat also means environmental preservation. This means that indigenous people should live by using nature without destroying it. They believe that forests are for their future generations and therefore they should respect and manage them wisely without exploitation. They also argue that only adat can manage nature wisely. Adat can determine which forest can be used and when they should be cutting down the trees. Finally, adat can mean organizing land ownership. In this case, adat can determine land division among the indigenous people and indicate which land belongs to certain tribes. Empowering of local communities especially in the rural area working in the agricultural sector is important for tourist development. Protecting the environment is important for implementing sustainable development. In this section, the enumerators asked to respondents about to what extent did traditional farming methods adopted by the indigenous people do not damage the forest in Papua.

Table 2: Traditional Farming Methods Useful for Green Economy

	Jayapura		Jayawijaya		Nabire		Combined	
	Freq.	Valid %	Freq.	Valid %	Freq.	Valid %	Freq.	Valid %
SD	9	17.0	7	14.0	3	5.9	19	12.3
JD	6	11.3	5	10.0	5	9.8	16	10.4
PD	5	9.4	6	12.0	10	19.6	21	13.6
N/M	2	3.8	3	6.0	4	7.8	9	5.8
PA	8	15.1	5	10.0	3	5.9	16	10.4
JA	8	15.1	9	18.0	8	15.7	25	16.2
SA	15	28.3	15	30.0	18	35.3	48	31.2
Total	53	100	50	100	51	100	154	100
Disagreed	20	37.7	18	36.0	18	35.3	56	36.4
Neutral	2	3.8	3	6.0	4	7.8	9	5.8
Agreed	31	58.5	29	58.0	29	56.9	89	57.8
Total	53	100	50	100	51	100	154	100

From the total number of respondents, 154, about 57.8% of the respondents agreed that the majority of Papuan communities adopted sustainable eco-system farming. Meanwhile about 36.4% of respondents believe that they disagree about traditional farming being sustainable and 5.8% did not answer. A closer look the data shows that in Jayapura regency from 53 respondents that about 58.5% of the respondents argue that traditional farming method is useful for sustainable farming. Meanwhile 37.7% of respondents disagreed about the importance of traditional farming regarding sustainable farming. Only a small percentage of the responds did not give an answer regarding traditional farming.

In Jayawijaya regency from 50 respondents, about 58% of the respondents argued that traditional farming is useful for protecting the environment and about 36% disagreed regarding the traditional farming method and said it was not useful for sustainable development in the agriculture sector. For Nabire regency from 51 respondents about 56.9% respondents mentioned that traditional farming methods are useful for protecting the environment. Respondents that disagreed about traditional farming being useful for protecting the environment constituted about 35.3% , while in Jayawijaya and Nabire regencies regarding those that did not answer constituted about 6% and 7.8% respectively.

In Papuan societies, traditional farming methods have been adopted since “the stone age” (Znoj, 2018). In Papuan societies always respect the forest where forest has an important role in their lives especially for indigenous people in the managing of the agriculture. Traditional eco-friendly farming methods were adopted considering environmental issues where the forest is not exploited too much. Therefore, this method is similar to the green economic program where in implementing it in the agriculture sector, besides a focus on economic issues, the issue of environment has become important for sustainable agricultural development.

The study found that the indigenous people argued that traditional farming method helped to conserve forest in Papua then support green economic program in the three regions. For example, the district of Nimboran (Jayapura regency), the indigenous people plant cocoa close to other varieties of plant. The reasons for planting the cocoa with other variety of trees is to protect the cocoa from the sun and heavy rain. This means that besides the indigenous people planting cocoa, they were also conserving the Papuan forest. This method was also adopted in Jayawijaya where the farmers plant coffee by using the traditional method where the coffee trees were surrounded by other varieties of plants.

4.3 Economic and Social of Indigenous People for Agricultural Development

The green economic growth program in Papua basically does not only place an emphasis on economic aspects but also considers harmony development with the environment. Many Papuans’ way of life respecting the environment which provide several sources for living such as gardening and hunting where they manage the environment wisely not exploiting the natural resources. It should be noted that the forest has an important role for protecting the world from the green house affect which leads to an increase in the temperature globally and uncertainty of climate change.

Table 3: Green Economic Program and Income Generation of Indigenous People

	Jayapura		Jayawijaya		Nabire		Combined	
	Freq.	Valid %	Freq.	Valid %	Freq.	Valid %	Freq.	Valid %
SD	7	13.2	6	12.0	3	5.9	16	10.4
JD	6	11.3	5	10.0	6	11.8	17	11.0
PD	5	9.4	8	16.0	9	17.6	22	14.3
N/M	2	3.8	3	6.0	4	7.8	9	5.8
PA	6	11.3	6	12.0	2	3.9	14	9.1
JA	12	22.6	8	16.0	8	15.7	28	18.2
SA	15	28.3	14	28.0	19	37.3	48	31.2
Total	53	100	50	100	51	100	154	100
Disagreed	18	34.0	19	38.0	18	35.3	55	35.7
Neutral	2	3.8	3	6.0	4	7.8	9	5.8
Agreed	33	62.3	28	56.0	29	56.9	90	58.4
Total	53	100	50	100	51	100	154	100

The green economic program in Papua has impacted income generating for indigenous Papuans by increasing the income of the indigenous people leading to improvement in the welfare among Papuans. It also improves the social condition such as better access on education for the young people and health services. In this case the interviewer asked to the respondent regarding their income from being involved in the green economic growth program in Papua.

It can be seen from total 154 respondents in Jayapura, Jayawijaya and Nabire regencies, about 58% of respondent stated that green economic program improve their income, while about 35% of the respondents said that the income did not change and small percentage of the respondents provided no answer. From 53 respondents in Jayapura regency, about 62% mentioned that the green economic program in cocoa production increased their income while about 34% of respondents said that there was no change in their income. Moreover, in Jayawijaya regency, from 50 respondents, about 56% respondents stated that the green economic growth program had an affect on coffee plantations and increased their income. Then the data also present that about 38% of respondents mentioned that there was no change in income by implementing the green economic program. Furthermore, for Nabire regency the data revealed that from 51 respondents, about 56% said the green economic program in the sago production helped to generate more income while about 35% argued that there was no change to their income.

The green economic program in Nimboran District (Jayapura) is improving the income generation of the indigenous people. Prior to implementing the green economic program, the production of cocoa dropped due to many cocoa plants being attached by disease. Since, the indigenous people involved in the green economic program supported by donor agencies (UKAid), the production of cocoa increased dramatically because the green economic program provided high variety of cocoa plants that are resistant to disease. As a result, the quality of cocoa bean in Nimboran is high where the indigenous people are able to export the cocoa to Japan. They are also able to work with suppliers and improve the quality of product, through the green economic providing technique and information regarding market for delivery of the product to the international market. In addition, based on interviews with respondents in

Nimboran, they spent their income on the basic needs and also spent on education and health services. From the harvest of cocoa, the indigenous people were able to own a motorcycle by selling their cocoa production. In the case of coffee production in Jayawijaya, the indigenous people in coffee production faced many challenges due to Covid-19 pandemic. There was no coffee production activity since the Papuan government implanted “lock down” in order to limit the spread of Covid-19. It should be noted that Jayawijaya is located in the highlands of Papua and it can be reacted by airplane as well as by ground, but due to “the lockdown”, all activities in Jayawijaya stopped including coffee production. . This contributed to the income generation from coffee production dropping due to no buyers and the pandemic.

4.4 Green Economic Growth and Tourism Development

The green economic program in Papua has help the local people to protect their environmental by managing forest wisely by growing the crops using the traditional method that is useful for preserving the environment in Papua. The green economic program is also economically beneficial to the indigenous people because their ability has improved in producing the core products such as cocoa, coffee and sago. In this case the researcher asked regarding the role of green economic program on tourism development. Data from Table 4 reveal that from 154 respondents in Jayapura, Jayawijaya and Nabire regencies, about 58.4% of respondents mentioned that the green economic program encouraged tourism development in the three regions. Meanwhile some respondents (35.7%) said that the green economic program had no affect on tourism development, and a small percentage of respondents did not give an answer, and constituted about 5.8%. Furthermore, in Jayapura regency from 53 respondents approximately 58.5% of them agreed, that the green economic program helps tourism development in the region, meanwhile about 34% disagreed. A small percentage of respondents in Jayapura did not respond (7.5%).

Table 4: Green Economic Growth Program and Tourism Development

	Jayapura		Jayawijaya		Nabire		Combined	
	Freq.	Valid %	Freq.	Valid %	Freq.	Valid %	Freq.	Valid %
SD	8	15.1	5	10.0	4	7.8	17	11.0
JD	5	9.4	6	12.0	5	9.8	16	10.4
PD	5	9.4	9	18.0	8	15.7	22	14.3
N/M	4	7.5	2	4.0	3	5.9	9	5.8
PA	6	11.3	6	12.0	4	7.8	16	10.4
JA	11	20.8	9	18.0	9	17.6	29	18.8
SA	14	26.4	13	26.0	18	35.3	45	29.2
Total	53	100	50	100	51	100	154	100
Disagreed	18	34.0	20	40.0	17	33.3	55	35.7
Neutral	4	7.5	2	4.0	3	5.9	9	5.8
Agreed	31	58.5	28	56.0	31	60.8	90	58.4
Total	53	100	50	100	51	100	154	100

In Jayawijaya regency, 56% of 50 respondents believed that the green economic program in Jayawijaya benefited tourism development in the region. On the other hand, there was also

found that about 40% of respondents mentioned that the green economic program had no affect on tourism development in Jayawijaya. The data also present that approximately 4% the respondents did not answer. Moreover, in Nabire regency from 51 respondents, about 60.8% agreed that the green economic program in Nabire could improve tourism development in Nabire. Meanwhile, about 33.3% argued that the green economic program had no significant impact on tourism in Nabire. The data also found that there was a small percentage of respondents with no give answer (5%).

As previousy mentioned, the green economic program could support tourist development. In addition, the green economic program emphasis sustainable development by promoting agricultural development, it also has an opportunity to be involved in tourism development in Papua. Papua has interesting places (forests, beaches, and mountains) and a cultural background and festivals which attract tourists from domestic and overseas. For example, Jayawijaya regency has “Baliem War Festival” where tourists often visit regularly during the festival. In Jayapura regency there is the “Danau Sentani Festival” that attracts many tourists. Meanwhile, in Nabire regency there are beautiful beaches and seas which have white sand that attract tourists for snorkeling and seeing beautiful coral reefs in Mapia Island. The green economic program promotes the indigenous people which in turn supports tourism development in the three regions. Many tourists desire to buy local products that are unique to Papua. As reported from the interview in Wamena during “the Balliem Festival” the local people were able to sell organic coffee from Wamena. In Mahaila, in Jayapura regency, the indigenous people sold cocoa and also a diversification of cocoa bean products in the districts of Kemtuck and Nimboran. Meanwhile in Nabire regency, many women were able to sell cakes made from sago.

4.5 The Role of Stakeholder in Promoting GEG and Tourism Development in Papua

Other factors for implementing the green economic program indoor to support tourism development in Jayapura, Jayawijaya and Nabire regencies was related to the role of stakeholder. It should be noted that the green economic program does not be implemented with any support from government, civil society’s organization, non-governmental organization (NGOs) donor agencies, Papuan ethnic leaders and churches.

From the total of 154 respondents in the region of Papua approximately 59.7% of respondents that that the role of stakeholder in the green economic program for promoting tourism development in Jayapura, Jayawijaya and Nabire regencies was important, while about 37% of the respondents believe that there was no need involvement of stakeholders. Furthermore, about 3% of respondents did not answer.

The data in the table also presents that in Jayapura regency from 53 respondents about 62.3% support the argument that the role of stakeholder is crucial for implementing the green economic program to support tourism development. On the other hand about 35.8% of the respondents answered that the role of stakeholder was not necessary for implementing the green economic program to support tourism development. There was also about 12% that did not answer regarding the opinion about the role of stakeholder. In addition, in Jayawijaya regency

about 60% of 50 respondents believe that implementing the green economic program and tourism development need intervention from stakeholders, while only 36% disagreed about the opinion. Then in Jayawijaya was also found that about 4% not answer. Moreover, in Nabire regency from 51 respondents, about 56.9% believe that the stakeholder is a significant role in implementing green economic development and tourism development while about 39.2% did not support the argument. And there was also found a small percentage of respondents that did not give an opinion (3.9%).

Table 5: The Role of Stakeholder on Green Economy Program and Tourism Development

	Jayapura		Jayawijaya		Nabire		Combined	
	Freq.	Valid %	Freq.	Valid %	Freq.	Valid %	Freq.	Valid %
SD	8	15.1	4	8.0	3	5.9	17	11.0
JD	7	13.2	9	18.0	8	15.7	16	10.4
PD	4	7.5	5	10.0	9	17.6	22	14.3
N/M	1	1.9	2	4.0	2	3.9	9	5.8
PA	6	11.3	6	12.0	2	3.9	16	10.4
JA	15	28.3	12	24.0	11	21.6	29	18.8
SA	12	22.6	12	24.0	16	31.4	45	29.2
Total	53	100	50	100	51	100	154	100
Disagreed	19	35.8	18	36.0	20	39.2	57	37.0
Neutral	1	12.0	2	4.0	2	3.9	5	3.2
Agreed	33	62.3	30	60.0	29	56.9	92	59.7
Total	53	100	50	100	51	100	154	100

In order to support tourism development through the green economic program in Papua, there needs to be involvement from stakeholder such as government, local community, donor agencies, adat leaders, and churches. So far the green economic program has only been supported by donor's agencies such as United Kingdom Aid (UKAid) and the Asia Foundation where they operate hand in hand with the local governments in Papua (Provincial and the regency level). Many respondents in the three regions argue that strongly believed that the donor agencies especially UKAid was help them on agricultural development. In Jayapura regency, for instance, the UKAid provided training to the indigenous people to plant the new variation of cocoa as well as the processing of cocoa beans in order to get the best product. Meanwhile, the Asia Foundation offered the indigenous people entrepreneurship training. Meanwhile, in Jayawijaya regency, the UKAid trough the green economic program facilitated the indigenous people in producing coffee meeting the quality of buyers in Bali. Training for making high quality coffee beans was based on demand from the buyers. Then in Nabire regency, the famers have also received training for making diversification of products from sago. For example, the indigenous famer received training for making cake from sago as well as making packing for the cake in order to attract the buyers. The study also found that many respondents mentioned that the famers faced many challenges especially the lack of support from the local government in the three regions. Lack of sustainable programs for the indigenous people contribute to overlapping programs. This is partly due to the local government merely focusing on the projects, meaning if the project finishes, the program discontinues. In addition, a lack of coordination was also a major constraint for implementing the green economic

program where the local government was reluctant to work with the donor agencies (UKAid and the Asia Foundation) contributed to slow progress for implementing the green economic program for supporting tourism development which can lead to improving the welfare of local community.

4.6 Green Economic and Community-Based Tourism Development in Papua

As mentioned previously, the green economic program in Papua involves the indigenous people in promoting tourism development. Papua has several tourist destinations and many interesting places that attract tourism both domestic and foreign where they regularly visit Papua in order to explore the beauty of the nature, culture and special events. In Jayapura, Jayawijaya and Nabire regencies there are interesting places and special events that attract many tourists every year. Thus, the green economic program focus on empowering indigenous people for improving their welfare by managing wisely their forest through the adoption of traditional methods for plating cocoa, coffee and staple food sago tress. In this case, the enumerators asked to the respondents in relation to their communities' participation in tourist development by implementing the green economic program in the regencies of Jayapura, Jayawijaya and Nabire.

Table 6: Community Participation in Promoting Tourism Development

	Jayapura		Jayawijaya		Nabire		Combined	
	Freq.	Valid %	Freq.	Valid %	Freq.	Valid %	Freq.	Valid %
SD	7	13.2	6	12.0	3	5.9	16	10.4
JD	6	11.3	5	10.0	7	13.7	18	11.7
PD	5	9.4	8	16.0	8	15.7	21	13.6
N/M	2	3.8	3	6.0	2	3.9	7	4.5
PA	6	11.3	6	12.0	4	7.8	16	10.4
JA	12	22.6	8	16.0	8	15.7	28	18.2
SA	15	28.3	14	28.0	19	37.3	48	31.2
Total	53	100	50	100	51	100	154	100
Disagreed	18	33.9	19	38.0	18	35.3	55	35.7
Neutral	2	3.7	3	6.0	2	3.9	7	4.5
Agreed	33	62.3	28	56.0	31	60.8	92	59.7
Total	53	100	50	100	51	100	154	100

From a total 154 respondents in three regions about 59.7% of the respondents believe that involvement of local communities in the green economic program was an important part for supporting tourism development while 35.7% of respondents had a different perception from those that agreed. Then, about 4.5% did not give an answer. After a closer a look the data, in Jayapura regency from 53 respondents about 62.3% agreed that participation of local communities was a crucial aspect in tourism development and only about 33.9% disagreed. Only a small percentage of did not share an opinion. Moreover, in Jayawijaya regency from 50 respondents, about 56% agreed regarding the participation of communities on tourism development and 38% disagreed, then only 6% of the respondents were neutral. Moreover, in Nabire regency from 51 respondents; about 60.8% agreed that involvement of the local community in the green economic program is crucial to tourism development is and about

35.3% of the respondents disagreed while only a small percentage did not answer. As mentioned in previous section, there are several interesting places and festivals that attract tourism in the regencies of Jayapura, Jayawijaya and Nabire. And has become tourists' destination every year in Papua. For instance in Jayapura regency every year, the regency has "the Dabau Sentani Festival". The tourists also can be seen "bird watching" the bird of paradise (Cenderawasih) areas close to Cyclop Mountain in Jayapura. "Baliem War Festival" also attracted tourism where the festival offer traditional culture of Dani's tribe in Jayawijaya. Furthermore, the beautiful biodiversity and sea was found in Nabire is also become tourism destination. The initiative for the green economic program for supporting tourism development in the three regions should come from the local community. The donor agencies and local governments should act as facilitators and implement the idea of local communities on green economic to support tourism development. For instance, in Nabire regency for implementing the production of sago, the local community conducted meetings at the village level for planning for sago production. The pattern of bottom up planning from the village level was also adopted for the indigenous people who plant cocoa in Jayapura and also in Jayawijaya for coffee production. This has proven that the green economic program came from local communities in the three regions.

5. CONCLUSIONS

This study provides insight into the local contexts related to the implementation of green economic programs for supporting tourism development in the regions of Jayapura, Jayawijaya and Nabire. This study attempted to answer the question regarding to what extent the green economic program has an impact on the indigenous people of Papua which focus on agricultural commodities such as cocoa, coffee and sago promoting tourism development in the rural areas of Papua. There are several conclusions that can be drawn from this study. Firstly, the way of life in the Papua communities has been strongly influenced by traditional political structure which can be categorized into Big Man, Kingdom and Mixed system. Secondly, in relation to the pattern of traditional farming in the three selected regions of Papua, the study found that the majority of Papuan communities adopted traditional farming methods that support conservation of the Papuan environment. This means that the Indigenous people prohibit damaging their environment where they have to carefully manage it and consider the next generation. This is related to the objectives of the green economic program that focus on sustainable development in the agricultural sector and also gives an opportunity to indigenous people through tourism development in Papua. Thirdly, the green economic program has an impact economically binomially and socially for the indigenous people. This is through the involvement in the green economic program by planting agricultural commodities such as cocoa, coffee and sago. These programs help the indigenous people increase their income that could support the cost of living and their kids' education as well as access to health services. This study also found that a small percentage of the respondents believe that there was no change to their income through the implementation of the green economic program. Fourthly, the implementation of the green economic program supported tourism development in the region of Jayapura, Jayawijaya dan Nabire. There were a significant number of respondents

that strongly believed that the green economic program regarding the agriculture sector especially planting cocoa, coffee and sago, economically adds value to the agricultural production that the product could be delivered to the tourists that prefer organic agricultural products. In addition, the role of stakeholder is becoming important in order to implement the green economic program and support tourist development in Papua. Overall, the respondents mentioned that the role of stakeholder in promoting tourism development through green economic programs was crucial to maintain the sustainability of tourism development in these three regions in Papua. Meanwhile, the same respondents also argued that the local government should take more action and be more involved in the green economic program. Finally, the participation of local communities in green economic programs for enhancing tourism development is necessary to maintain green economy and sustainable tourism development in Jayapura, Jayawijya and Nabire. This occurs since local governments, donor agencies, NGO's, communities, and ethnic leaders have strong commitment to boosting tourism development through green economic programs in Jayapura, Jayawijaya and Nabire. This study also found that there was a small percentage of respondents that argued that it was unnecessary for stakeholders to be involved in tourism development in the three regions.

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