Analysis of Ecotourism Approach as a Sustainable Development Construction of Local Levels in Indonesia

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I. INTRODUCTION
Indonesia is the country with the largest population and geographical area in the Southeast Asian Region. In terms of population, the population growth reached 269.6 million in 2020. Geographically, according to the Geospatial Information Agency (BIG), the territory of Indonesia consists of 1,922,570 km of land and 3,257,483 km of water. When compared with other regions, the area of Indonesia (land and sea) is almost equivalent to Europe or the United States or Australia. Therefore, population growth and geographical area in Indonesia with a large scope cause a distinction between agrarian society and urban society.

Picture 1.1. Province in Indonesia

Based on Figure 1.1 shows Indonesia is an archipelago, where according to Statistics Data in 2018 noted that Indonesia amounted to 16,056 Islands, at the same time, the number of provinces recorded 34 provinces.

As an archipelago, Indonesia has challenges in carrying out a sustainable development agenda. This is because the position between the Regional Government and the National Government is separate, therefore it has affecting the Regional
Government to have difficulty in formulating local level sustainable development policies. This is exacerbated by the lack of human resources who have the skills to participate in sustainable development both Government and non-government in remote areas. This condition is caused because the majority of Indonesian people are in agrarian areas contained are economically and technologically unproductive. Therefore, sustainable development in Indonesia has not yet been massively progressive.

Indonesia was considered a failure in implementing the previous MDGs because the Regional Government did not participate in implementing the policy framework, therefore since the SDG framework was in 2015, the Regional Government was considered to have an important role in implementing the future sustainable development goals on the 2030 agenda.

The Regional Government has a strategic role in achieving the Sustainable Development Goals contained one of Indonesia's commitments in the international agenda relating to the environment, social, and economy. This emphasizes that the strategic role of the Regional Government in achieving SDGs is very important to ensure the implementation of public services and SDGs indicators run well at the local level. Furthermore, the Regional Government has the authority to carry out sustainable development in terms of the approach with local communities, has the authority to manage the budget and authority in the management of surrounding land and natural resources. Therefore the diversity of advantages possessed by the Regional Government must be used as well as possible in the implementation and achievement of SDGs, with the result that of the MDGs that are not able to optimize the role of the Regional Government should not be repeated.

The success of SDGs and Goals directly or indirectly is closely related to the performance of the Regional Government. Increasing local government knowledge to implement SDGs is a challenge. Especially for countries like Indonesia, contained has around 500 cities and regencies, each of contained has a different situation both politically, economically, and socially. Yet overall, each city and district area in Indonesia has in common with the geographical bonus of vast forest land. Therefore this research will focus on the use of forest land that can be used as ecotourism to achieve sustainable development at the local level.

Ecotourism approach in local level sustainable development in Indonesia is considered potential, this is because Indonesia is a large country, contained allocates 120.6 million hectares or around 63 percent of its land area as Forest Areas. At the same time, the remaining land area is in the form of non-forest areas known as Other Use Areas (APL). Forest Areas are classified into 3 (three) functions, namely: Production Forest (HP) covers an area of 68.8 million hectares or 57 percent of the Forest Zone; Conservation Forests (HK) covers an area of 22.1 million hectares or 18 percent of the Forest Zone (with an additional 5.3 million hectares of water conservation areas), and Protection Forest it's has a watershed protection function (DAS) and covers an area of 29.7 million hectares or 25 percent. As a country with a tropical climate, Indonesia consists of more than 17,000 islands located between 2 (two) continents, Asia and Australia, and between 2 (two) oceans, Pasifik Ocean, and the Indian Ocean. Due to the geographic location, Indonesia has a very high level of biodiversity and endemicity and has a high level of diversity.1

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Based on the picture above, it can be predicted that the Ecotorusim approach can have the potential to carry out sustainable development at the regional level as well as in remote areas throughout Indonesia. This can be seen based on the infographics reported by Fostercarbon regarding the spread of forests in Indonesia. Besides, the ecotourism approach is biased because most of the Indonesian people are agrarian or farming groups. But in its development the number of farmers in the region experienced a reduction due to aging, thus causing local communities who are in remote areas, in particular, experiencing unemployment.

According to the 2018 Central Statistics Agency report, the unemployment rate in the village was 4.04 percent or rose from the same position last year with 4.01 percent, according to the figure, the number of workers in the agriculture sector was 35.7 million people or 28.79 percent of the working population of 124.01 million people. At the same time, in 2017, the number of agricultural sector workers was recorded at 35.9 million people, or 29.68 percent of the population working 121.02 million people. This factor is due to modernization that emphasizes the current urbanization in urban areas and the lack of transformation for farmer groups. Therefore, the Regional Governments in each province have the same opportunity to realize sustainable development as a driving

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2 Forest Carbon Partnership, “Indonesia”, last modified 2017, Retrieved From ; https://www.forestcarbonpartnership.org/country/indonesia
force for national development and can empower local communities in the transformation of inclusive sustainable development.

II. Methodology
a. Research Purpose

I. Specific Purpose

Specifically, this research is aimed at the Regional Government in Indonesia to carry out sustainable development at the local level by utilizing the natural resource sector is managed as an Ecotourism container in realizing sustainable development that includes; development of regional income, increasing welfare for the surrounding community and environmental sustainability (economic, social and environmental), in order to the output of the research can form the initiative of the Regional Government to be able to manage the surrounding natural resources and involve the participation of local communities.

II. General Purpose

In general, this research is intended to be a reference for global policies, especially for local governments (governors, mayors) and national governments that still have obstacles in implementing sustainable development approaches in the local stick. In addition, the specific objectives of this study are also aimed at countries that have similar geographical and population groups with Indonesia. Where, geographically it can be seen from the large geographical area that has a forest sector and an agrarian society that can be utilized as a driver of the economic, social and environmental sustainability.

Table 1.1
The State of The World’s Forests 2020

<table>
<thead>
<tr>
<th>No</th>
<th>Country</th>
<th>% Forests</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Russia Federation</td>
<td>20.1%</td>
</tr>
<tr>
<td>2</td>
<td>Brazil</td>
<td>12.2%</td>
</tr>
<tr>
<td>3</td>
<td>Canada</td>
<td>8.5%</td>
</tr>
<tr>
<td>4</td>
<td>USA</td>
<td>7.6%</td>
</tr>
<tr>
<td>5</td>
<td>China</td>
<td>5.4%</td>
</tr>
<tr>
<td>6</td>
<td>Australia</td>
<td>3.3%</td>
</tr>
<tr>
<td>7</td>
<td>Republic of Congo</td>
<td>3.1%</td>
</tr>
<tr>
<td>8</td>
<td>Indonesia</td>
<td>2.3%</td>
</tr>
<tr>
<td>9</td>
<td>India</td>
<td>1.8%</td>
</tr>
<tr>
<td>10</td>
<td>Peru</td>
<td>1.8%</td>
</tr>
<tr>
<td>11</td>
<td>Rest of the world</td>
<td>33.9%</td>
</tr>
</tbody>
</table>


Based on the table above shows that globally 10 countries have a broad category of forests based on the FAO report. Of the 10 countries, the Russian Federation occupies the highest position with a figure of 20.1%, at the same time India and Peru have the smallest percentage of 1.8%. Overall, the data shows that almost 70% of global forests have been occupied by inhabited countries, therefore category

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countries that have forests can indirectly affect the environment globally. Therefore, this research focuses on the use of forests as ecotourism that can become a forum for global sustainable development that can be a reference for other countries.

B. Types of research
This type of research is qualitative research, where research is descriptive and tends to use analysis. Specifically, this study analyzes the concept of ecotourism as a platform for sustainable development through the utilization of forest conservation and empowers local communities with an agenda for sustainable development at the local level.

C. Research data
The data in this study are secondary; supporting data sourced from existing literature and references both local and international journals and related articles. Specifically, references are based on national journals.

III. Discussion
The capacity of Sustainable regional economic development is an effective collaboration between the utilization of existing resources, the community, and the government. In this context, the government as a regulator has a strategic role in seeking broad opportunities for local people to participate fully in economic activity. One of the optimal efforts to utilize local resources is to develop tourism with the concept of Ecotourism. In this context the tour carried out has an inseparable part with conservation efforts, empowering the local economy and encouraging higher respect for cultural differences. This is what underlies the difference between the concept of ecotourism with conventional tourism models that have existed before.  

Ecotourism is a sub-component of sustainable tourism. Ecotourism, as an alternative tour, involves visiting nature to study, study or carry out environmentally friendly activities, namely tourism based on natural experience, its enables the economic and social development of local communities. It focuses mainly on experiencing and learning about nature, landscapes, flora, fauna and their habitats, as well as cultural artifacts from the area. Ecotourism includes natural resources, cultural heritage, rural lifestyles, and integrated tourism its tends to be a type of local economic activity. Therefore, ecotourism in nature and cultural areas is carried out with several elements in their natural and cultural landscapes (water, scenery, topography, vegetation, clean air), as well as in various recreational activities suitable for all types of environments. Therefore, ecotourism and its natural assets and raw materials are created to direct people to travel as tourists.

Ecotourism helps in community development by providing alternative sources of livelihood for local communities that are more sustainable. The aim is to conserve resources, especially biodiversity, and maintain sustainable use of resources, its bring ecological experience to tourism, preserve the ecological environment and get economic benefits. However, achieving goals in ecotourism depends on whether the goals are environmentally and ecologically sustainable and can be applied economically. Ecotourism helps in involving local communities for the conservation of ecology and biodiversity in the area contained in turn biodiversity provides economic incentives to local communities. Ecotourism contributes to biodiversity conservation; sustaining the welfare of the local community; involves responsible actions on the part of tourists and the tourism industry; promote small and medium-sized tourism businesses; requires the

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lowest possible consumption of natural resources; emphasizing local participation, ownership and business opportunities, especially for rural communities; and above all including learning experiences.\(^6\)

**Impact Analysis of Ecotourism in Regional Development Sector**

Based on the analysis above shows the impact of ecotourism on 4 sectors; First, increasing agricultural productivity, where Indonesian farmers are experiencing high urbanizations therefore with ecotourism can empower local farmers. Next is a local community education platform, where ecotourism functions both as environmental management and a means of developing local culture. Furthermore, as a creative economy industry. Where, this sector, can increase the participation of local communities to develop renewable economies both from agro-tourism products and

cultural development through innovation and creativity. Finally, as a forum to increase the production of local nutrients for local communities through the cultivation of certain types of food to improve nutrition for local people.

A. Ecotourism Analysis as a form of Transformation of the agricultural sector and the wheel of sustainable development at the local level in Indonesia.

The use of natural resources as one of the tourism industry's revenues facilities at the same time preserving the environment can be implemented in Indonesia as a sustainable development agenda at the local level. This is supported by the potential agricultural sector it's according to the Katadata Report that Agriculture is one of the sectors that dominate the structure of Indonesia's gross domestic product (GDP) according to business. The structure of the agricultural sector is 13.45% or the second highest after the industrial sector 19.62% in the third quarter of 2019.

Table 1.2
Structure of Gross Domestic Product by Business Field in the Third Quarter of 2019

<table>
<thead>
<tr>
<th>No</th>
<th>Development Sector</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Industry</td>
<td>19.62%</td>
</tr>
<tr>
<td>2</td>
<td>Agriculture</td>
<td>13.45%</td>
</tr>
<tr>
<td>3</td>
<td>Trade</td>
<td>13.02%</td>
</tr>
<tr>
<td>4</td>
<td>Construction</td>
<td>10.6%</td>
</tr>
<tr>
<td>6</td>
<td>Transportation and Warehousing</td>
<td>5.52%</td>
</tr>
<tr>
<td>7</td>
<td>Financial Services and Insurance</td>
<td>4.19%</td>
</tr>
<tr>
<td>8</td>
<td>Information and Communication</td>
<td>3.95%</td>
</tr>
<tr>
<td>9</td>
<td>Government Administration</td>
<td>3.43%</td>
</tr>
<tr>
<td>10</td>
<td>Educational Services</td>
<td>3.28%</td>
</tr>
</tbody>
</table>

Source: Central Bureau of Statistics; “The Second Highest Agricultural Contribution in Indonesia’s GDP”.7

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Based on the table above shows that the sector it’s had the largest contribution to third-quarter GDP in 2019 in Indonesia. The industrial sector occupies the highest percentage with 19.62%. Meanwhile, the smallest sector is education services by 3.28%.

The agricultural sector has declined despite being recorded as the second highest GDP in national development, since 1990-2018 the contribution of agriculture to GDP dropped dramatically from 22.09% to around 13%. Furthermore, this matter was made worse by the farmers’ crisis. According to data from the Central Statistics Agency 2018, where agricultural productivity from 55.3% to 31% in the same year period.

Agricultural Census 2003-2013 in Indonesia

Diagram di translatetkan: data diagram sensus pertanian 2013 yang dibagi berdasarkan umur

Based on the census of farmers since 2003-2013 shows the following data analysis; farmer census data in 2003, the proportion of farmers aged 25-44 was the largest percentage it's reached 44.7%. Then, the last group of farmers aged > 60 years was 13.8%, and <24 years 9.2% was the smallest group (Figure 1). Furthermore, for the 2013 Agriculture Census data, the proportion of farmers over 40–54 years was the largest, at 41% (Figure 2). The second-largest proportion is the age group of more than 55 years it’s can be classified as old farmers, it is 27%, yet the younger generation group with less than 35 years of age is only 11%. The 2003 Agricultural Census also showed that the majority of farmers were in the 25-44 age group at 44.7%, then followed by the 45–60 age group at 23.2%, the proportion of the labor force of the elderly (> 60 years) group was around 13.8 %, and the lowest are young people (<24 years) only 9.2%.

The results of comparison of farmers census between 2003-2013 in Indonesia showed that there were differences in the age groups of farmers, where the participation rate of the younger generation declined, so this affected the productivity of the agricultural sector. Therefore, eco-tourism plays a role in reviving the local agricultural sector through the agro-tourism approach.

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Ecotourism analysis as a platform for agricultural productivity

The term agro-tourism comes from the word agro, it's means agriculture and tourism, means traveling together to expand knowledge. Furthermore, agrotourism can be interpreted as an activity of traveling together to expand agricultural science. Nowadays the concept of agro-tourism is one alternative in picnics both with families and picnics organized by schools. In addition to being a fun vacation choice, agro-tourism also offers educational tourism packages that will add insight and knowledge, especially in agriculture. Agro-tourism is part of a tourist attraction that utilizes agricultural business (agro) as a tourist attraction. The aim is to expand knowledge, recreational experiences, and business relationships in agriculture. Through the development of agrotourism that emphasizes local culture in utilizing land, therefore it will increase the income of farmers while preserving land resources, as well as maintaining local culture and technology that are generally in accordance with the conditions of the natural environment (Ministry of Agriculture, 2003). Agro-tourism is a combination of agricultural activities and tourism activities. Tourism activities are activities that go out of the scope and scope of work yet enjoying the view or other things that are not related to the work owned by tourists. Agricultural activities in this case are agriculture in a broad sense, constituting all activities in human survival related to harvesting solar energy from the primitive level (hunters and collectors) to sophisticated agricultural models (tissue culture). These agricultural activities include dryland farming, rice fields, crops, plantations, forestry, yards.\textsuperscript{9}

b. Ecotourism in improving informal education

Indonesia as a country that has a good wealth between local culture and natural resources is a strategic target to be used as a forum for empowering local communities.

In terms of cultural diversity ranging from religion, ethnicity, a dance that has 742 languages/dialects, consisting of various ethnic groups and sub-ethnic groups, the number is not less than 478 ethnic groups. The role of ecotourism to optimize local culture is to provide a place for local empowerment, for example, conservation of history, organic products that are managed into handicraft packaging, and the use of the natural environment as a means of developing the culture of local communities.

On the environmental preservation side, ecotourism is used as a means of education and character education. The cornerstone of ecotourism education is the development of sustainable tourism to support environmental preservation (nature and culture) and increase community participation in management, thus providing economic benefits to the community and the Regional Government. Ecotourism is not just a concept of traveling in the natural environment but also a focus on observation and understanding of nature and culture, supporting conservation, and prioritizing the facilities and services provided by the local community.

According to the research results of Sulistiani (2011), there are two strategies in developing edu-ecotourism that can be applied, namely designing various tourism products and developing the abilities, skills, and competencies of the surrounding community. Raising public awareness about the environment is one of the keys to ecotourism development, it will have implications for the emergence of various demands in all development sectors. These demands have and will encourage the growth of new businesses, new ways of approaching various activities both tourism businesses that are directly carried out by the tourism business world and community efforts to improve their welfare and encourage the active role of relevant government institutions. These conditions are increasingly convincing that the environment is no longer a burden, but can be used as a means of increasing economic efforts as well as a means of integration of almost all formal institutions. In another purpose, the important role of the environment in encouraging all levels of society to use it as a space for development in various fields of public education, business, therefore it is expected to encourage all parties to solve environmental problems together.

c. Ecotourism enhances the creative economy industry

Economy of Indonesia has a dependency on the industrial sector that cannot be renewed. One of them is industries that utilize natural resources, namely the mining and energy sectors.

According to the Realization of Non-Tax State Revenues noted that the report on the contribution of the mineral and coal sector in December 2018 was recorded at Rp46.6 trillion. This sector is considered to be able to guarantee the national and international economy. Yet in its development due to high demand, the mining and energy sectors have an impact on the decline in the natural environment it's causes natural disasters; floods, landslides it's harm local people. Therefore, the creative economy sector can balance the economy that cannot be renewed through the

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ecotourism development sector.

Creative Economy is a concept that develops based on creative assets that have the potential to help economic growth. The creative economy can increase income for the community, create jobs and economic value derived from export activities yet at the same time helping to promote socio-cultural diversity and develop human resources.

The creative economy can be developed through ecotourism by involving the skills of local communities. These skills are developed through empowering local communities with local cultural values that can be packaged as creative economic products. Besides, organic products can also be managed into sustainable small businesses.

d. Ecotourism as a platform to increase local nutrition production

According to the Tirto report since 2018, 15 provinces in Indonesia experienced cases of malnutrition. Based on the results of the Basic Health Research (Risksedas) Ministry of Health 2018 showed 17.7% of infants under 5 years old (toddlers) were still experiencing nutritional problems. This figure consists of toddlers who experience malnutrition by 3.9% and those suffering from malnutrition by 13.8%. 

Factors that influence the occurrence of malnutrition include socioeconomic status, mother's ignorance about providing good nutrition for children and Low Birth Weight (LBW) (Anwar, 2005). Besides, the results of research conducted by Isnansyah (2006) through the correlation test, showed a positive and significant relationship between mother's work with the nutritional status of children under five. Other sources say that low education can affect food availability in the family, it's in turn affects the quantity and quality of food consumption it is a direct cause of malnutrition in children under five (Kosim, 2008).

The ecotourism platform can be utilized as land for strengthening nutritional production and for local communities by providing nutritious food production at the local level. Then the ecotourism platform will refer to the implementation of national food security policies. The ecotourism will have an impact on food security strategies as follows:

a. Ecotourism will increase food availability by increasing domestic production. Besides, ecotourism is also a development of food reserves that can be consumed by local communities.

b. Ecotourism can reach food production locally through marketing efficiency and facilitation and will form a local food logistics system.

Therefore, it is expected that the use of ecotourism as a production area for local food availability can meet the nutritional needs of local communities who experience nutritional limitations.

e. Ecotourism as a green infrastructure

According to a report from the Ministry of Environment noted that environmental damage in Indonesia due to human activities, among others: The deforestation rate reached 1.8 million hectares / year resulting in 21% of the 133 million hectares of Indonesia’s forests lost, this causes the phenomenon of air pollution, water pollution, pollution land and sea pollution in Indonesia. Therefore, ecotourism can contribute to

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the restoration of the natural environment by utilizing forest conservation and involving the community and local government.

Peter Mason (203) in his writings quoting Holden (2000) states that the environment or physical condition is one of the important factors in tourism. Tourism itself and as a place where tourism activities occur. The relationship between the environment and tourism is a complex relationship, because they are both dependent and symbiotic.

The impact of ecotourism on the environment, among others, as follows:

a) Minimize the negative impact on nature and social it’s can damage tourist destinations.

b) Educate tourists about the importance of nature conservation.

c) Emphasis on conservation and management of nature and protected areas.

d) It depends on infrastructure that integrates with nature, minimizes the use of fossil fuels, conserves endemic flora and fauna, and integrates with nature and culture.

Therefore, the ecotourism platform, it can minimize environmental damage and can revive sustainable ecosystems and ecology for environmental sustainability in Indonesia.

Based on the description of the use of ecotourism in the contribution of the region shows the differences in ecotourism with the types of tourism in general. In particular, tourism in general emphasizes more commercially and focuses on foreign tourist visits. At the same time, ecotourism is more focused on the results of environmental contributions and the surrounding community. Therefore, it can be revisited how ecotourism can become a new idea in the sustainable development agenda as a basic foundation.
IV. Theory of Change
A. Analysing Sustainable development strategies in Indonesia in utilizing regional development
B. Analysis of Ecotourism Development Strategies
C. Analysis of the Impact of Ecotourism on Sustainable Development at the Regional Level
V. Suggestions and Conclusions

Increase local food supply for the surrounding community and increase farmer productivity

Increasing the productivity of the creative economy and providing income for local communities

Increasing the participation of local communities and the Government and private parties related to nature conservation

Increasing the participation of local communities and the Government and private parties related to nature conservation

Increase Regional Revenue and can contribute to economic development
A. Suggestion
The ecotourism approach is one of the right strategies in sustainable development in Indonesia through regional development plans. The ecotourism approach is implemented considering the geographical bonuses it’s include natural resources and the diversity of cultural communities in Indonesia. Then, the implementation of ecotourism is carried out by the Regional Government it’s has a strategic position in regional public policy. Local governments can manage local budgets, collaborate with private and public parties, manage natural resources and approach with local communities. Therefore Local Government requires a non-Government Sector approach specifically to carry out ecotourism development;

1. Private Sector (External Investment Investment Utilization)
2. Local organization
3. Media
4. Academics

With further approaches in particular with the government sector, the goal of sustainable development can be implemented by all groups.

B. Conclusions
The conclusions of the results of the study entitled "Analysis of Ecosystemism Approach as a Sustainable Development Construction of Local Levels in Indonesia" are:

a. Indonesia has the potential to achieve the success of the 2030 sustainable development goals by emphasizing the failure of the previous MDG’s by involving the Regional Government as the wheel of development.

b. To implement the wheels of sustainable development effectively and comprehensively, the Regional Government can utilize the geographical bonuses and cultural diversity of the community into one concept, namely ecotourism.

c. The results of this study indicate that ecotourism has an impact on the pillars of sustainable development it’s include the pillars of social, economic and environmental development.
Dissertation:


Article:


News:


Forest Carbon Partnership, “Indonesia”, last modified 2017, Retrieved From ; https://wwworestcarbonpartnership.org/country/indonesia
