

FORESTS AS A CENTER OF A GREEN ECONOMY

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Abstract

The current use of forests should be directed more towards environmental services, absorbing air pollutants, tourism, and various faunal activities. A Green Economy is an economic regime that enhances human well-being and social equity, while significantly reducing environmental risks. Green Economy also means an economy that produces low or no carbon dioxide emissions and environmental pollution, saves natural resources, and is socially equitable. The community of the State of Itawaka, East Saparua District, and Central Maluku Regency are mostly farmers, where daily activities have to go to the forest. so it is necessary to provide education about the importance of the forest not only to collect wood but also for other benefits such as: producing oxygen, environmental services, and as a green economy center. The solution offered to the people of Itawaka Country is in the form of counseling activities by providing education for the community to maintain and maintain the forest because the forest has various benefits that are not enjoyed by the current Itawaka community, it can be maintained for the enjoyment of the next generation. To realize a green economy, Indonesia needs to change its pattern of economic development from pursuing high economic growth to economic development that optimizes growth itself, because development that only pursues growth has brought social impacts on society in the form of poverty, economic and social inequality, and has an impact on declining quality. environment and biodiversity.

Keywords: Forest, Green Economy, Environmental Community.

INTRODUCTION

Forests are natural resources that can be renewed, meaning that forests are classified as natural resources that are always growing or never run out (Renewable resources). Forest is an ecosystem that is stable in that there is a balance between the components of Producers (Green Plants), Consumers (Animals both herbivores and carnivores), and Decomposers/decomposers. If these three components of the ecosystem are not disturbed, the forest ecosystem will continue to be stable. As a natural resource that can be renewed, so that forests have the potential to provide unlimited natural resources so that they can provide adequate environmental carrying capacity, the management and utilization of forests must be carried out optimally and sustainably.

Forests as an area that have multiple functions are very important as an upstream sector of development. The use of the forest is more directed towards environmental services (water storage and suppliers), absorbing pollutants in the air, tourism services, and is used for various faunal activities. With the complexity of forest functions in utilizing these forest

services more consider the ecological, economic, and socio-cultural aspects of the community.

A Green Economy is an economic regime that enhances human well-being and social equity, while significantly reducing environmental risks. Green Economy also means an economy that produces low or no carbon dioxide emissions and environmental pollution, saves natural resources, and is socially equitable. Meanwhile, the ecological green economy is a model of economic development based on sustainable development and knowledge of ecological economics.

Green Economy or Green Economics has become a new world ideology, which must be maintained with good and correct policies. The business world can no longer do business as usual because this practice can deplete oil reserves. Former Indonesian president Susilo Bambang Yudhoyono also emphasized "This nation has a historical responsibility for future generations", he also emphasized that in the future, Indonesia must develop the concept of sustainable agriculture that does not damage the environment.

The purpose of this service activity needs to be carried out so that the community better understands the concept of the forest as a green economy center which is applied in environmental regulation in supporting sustainable development.

IMPLEMENTATION METHOD

The method used in this service activity is to provide knowledge to the community in the form of counseling about the importance of forests as centers of a green economy or Green Economics.

RESULTS AND DISCUSSION

The current economic development model applied to develop economic development tends to be extractive and short-term, so a green economy approach that ensures the maintenance of a reciprocal relationship between economic development and the sustainability of environmental functions in supporting the realization of sustainable development must be started immediately.

Figure 1. Extension Activities in Itawaka Country



Source: Personal Documentation

3.1. The Concept of Green Economy Development in Indonesia

The concept of Green Economic Development not only calculates the results to be obtained but also takes into account the impacts it will cause or how many environmental costs must be borne. Environmentally sound development policies not only save the current generation but also save future generations as well as wise management of natural resources by taking into account the impact that will be caused to save the current generation and the next generation of the nation. "We must carry out economic transformation towards an economic structure that is supported by an economic sector based on renewable natural resources" and "because we have committed to carrying out development that applies the concept of a Green Economy, it is not an exaggeration if we can calculate the rate of economic growth and GRDP not only calculate the economic output of the sector only but must also account for the resulting environmental costs”...

Meanwhile, the concept of Green GRDP (Gross Regional Domestic Product) provides opportunities for regions with abundant natural resources to create a fairer governance system, especially in terms of financial relations with the use of natural resources, with the Central Government and other Regional Governments. "The application of Green GRDP will encourage local government governance that favors the principles of conservation and sustainable development, which can be carried out by regions that have great natural resource potential but their use economically carries a great risk of ecological functions".

One form of presenting development indicators under the principles of environmentally sound development is the concept of Green GRDP. More comprehensive indicators are summarized in the System Of Environmental-Economic Accounting (SEEA), which also contains Green GRDP. Implementation of SEEA in Indonesia in the form of an Environmental Account System. With the implementation of the Green GRDP concept, it is expected to be able to encourage a more balanced distribution of benefits between the center and the regions as well as to encourage active community participation in development. For example, for the province of East Kalimantan, we have established the concept of green GRDP in the 2014-2018 RPJMD through an emission intensity indicator that will see how much CO₂ emissions (tons) per million US\$ GRDP are generated.

3.2. Strategy to Build Forests as a Green Economy

The potential of the ecosystem known as natural capital provides new opportunities for sustainable economic growth. Indonesia has abundant natural resources, including the world's most diverse forest and coral reef ecosystems, fertile volcanic soil, and highly productive freshwater ecosystems.

Business models based on the use of non-consumptive natural capital offer a variety of new opportunities, including pharmaceutical biotechnology which is still in its early stages of development and requires incentives to reduce business risks and recognition of the benefits to society. Valuation and maintenance of natural capital also support the sustainability of traditional agriculture and forestry enterprises. The interrelationships between ecosystems and the impacts of different land management, such as the impact of downstream water pollution caused by upstream economic activities, also require solutions through an integrated landscape approach. How does green growth help sustainable landscape management?

The following are six examples of strategies and applications of a green growth approach in the context of a sustainable landscape, namely:

- 1) Invest in new business models for forest and peatland management
- 2) Building a sustainable supply chain
- 3) Creating new markets for natural capital and ecosystem services
- 4) Bringing forest managers closer to the forests they manage and to local forest-dependent communities
- 5) Restoring ecosystem conditions at the landscape scale
- 6) Mobilize forest carbon finance

Forda (Yogyakarta, 24/07/2017)_Sustainable forest development is very important so that the balance of forest ecosystems and sustainable benefits for the community is maintained. Appropriate strategies and mechanisms in forest management are needed. For this reason, the selection of appropriate strategies and mechanisms needs to be developed. Various efforts have been made by actors, both government and research experts, by planning strategies, patterns, and programs, so that sustainable forest development can be realized.

At the beginning of the presentation at session 2 of the IUFRO INAFOR Joint International Conference 2017 which was held at the Alana Hotel Yogyakarta on July 24 – 27 2017, the Governor of Bangka Belitung Erzaldi Rosman had the opportunity to give an explanation on sustainable development based on Agarwood (*Aquilaria malaccensis* Lamrks). Rosman, a man born in Bangka, said that the sustainable development of Agarwood (*Aquilaria malaccensis* Lamrks) in the Province of the Bangka Belitung Islands can be achieved in various ways including, tree planting, namely by giving agarwood seeds to farmers/community for free, inoculant production, natural inventory and cultivation, diversification of agarwood products, making road maps, making cluster designs, and training farmers to increase community economic growth and maintain green forests. On the next occasion delivered by the Deputy Chairman of the Indonesian Forest Entrepreneurs Association (APHI) Dr. Irshal Yasman. This association, which accommodates about 420 forest concession businesses in Indonesia, is domiciled in Jakarta.

Irsyal explained the development of plantations from an industrial perspective which is influenced by many factors, namely government policies, financing and financial feasibility, social conflicts, deforestation, climate change and forest fires to be managed. Appropriate efforts are needed to bring research results into operational programs in the field through research collaboration, training, and research synergies between the government and the private sector.

At the moment of the discussion, it was conveyed that the challenges in the forestry sector required various scientific discussions to get the right types to be developed on various forest lands. Emer. Ko Harada, Professor Emeritus of the Faculty of Agriculture, Ehime University, Japan with expertise in Molecular Population Genetics, Phylogeography, and evaluation of forest tree species., provides solutions for sustainable plantations. Harada emphasized that in sustainable plantation planning a better understanding of biodiversity aspects (genetic diversity, species diversity, and ecological diversity) Dato' Marzalina BT. Mansor from Forest Research Institute Malaysia (FRIM) added the need for a forestry plantation development program through several studies on fast-growing wood species with

shorter rotation periods which are harvested suitable for degraded and infertile lands. According to him, over the next half-century, plantation forests will be used for any human activity while natural forests will be preserved for ecological protection and biodiversity conservation. The aspiration from Malaysia until 2020 is that forest plantations will have a very large impact if they can meet the needs of the community, environment, economy, technology, and management.

3.3. Forests as Food Source

First, is the aspect of food availability. The diversity of trees and wildlife in the forest, including a variety of fruit-producing trees, is an additional source of variety for the food production system that provides a balanced source of nutrition for the people living in the vicinity. Forests are a source of affordable food variety, especially for those with limited livelihoods. When there is a food shortage due to crop failure or an economic crisis, the forest becomes a safety net for the livelihoods of the surrounding community. Forest food supplies micronutrients, fiber, and other components that humans need. Food safety is not just a matter of the amount of calorie intake, but also a balanced variety of nutritional intake. Forests with their diversity play a role here. Variations in forest nutrition are sourced from wild food, including honey, as well as game animals and several types of insects which are a source of protein. Even a healthy forest ecosystem will provide food supplies from sources in the water, considering that water is the main product of forests everywhere.

Second, is the aspect of food stability. Forests are important habitats for various key pollinators for food production. Without forests, vital ecosystem services that birds and insects provide will be lost. This loss can cause food safety problems. Likewise, other ecosystem services are important to agriculture, including regulating the water cycle and soil fertility. The existence of forests helps to mitigate the impact of climate change on agricultural productivity. Large-scale food production is vulnerable to extreme climatic events. Agroforestry will be a solution because this agroforestry system combines farming systems without cutting down forests or converting forests.

Third, is the aspect of food utilization. Forest wood is a source of energy for processing foodstuffs. FAO noted that 2.4 billion people worldwide use firewood to cook food and sterilize drinking water. The cooking process allows the breakdown of proteins that can be digested by the human body and strengthens certain micronutrients, thereby increasing the nutritional value of food.

Fourth, access to food. Forests provide a variety of jobs and sources of income, enabling people to meet their food and nutritional needs. FAO data show that global annual revenues from timber production are worth about US\$600 billion, with an additional US\$124 billion from informal production of forest products. Various economic activities in the forestry sector, provide jobs for more than 50 million people in the world. With these four aspects, we know now that the forest is more than just trees and wood. The role of forests for nutrition and food security is not immediately obvious, but we need to understand that forests are closer to human interests and development

Sustainable Forestry, Food Security and Nutrition, a recent report by the Center for World Food Security Research, examines in depth the interplay between sustainable forests, food security, and nutrition – topics that to date have received little focus in substantial social

research. The High-Level Expert Panel (HLPE), consisting of scientists and food security and nutrition specialists, draws on information from the world's forest landscapes to test the hypothesis that sustainable forest use improves the health and diet of nearby communities.

CONCLUSION

The internalization of the green economy concept into laws and regulations and policies for the management and utilization of natural resources and environmental conservation to supporting the implementation of Indonesia's sustainable development is a necessity. As a necessity, it is the responsibility and obligation of all of us to make it happen

To achieve this, Indonesia needs to change its pattern of economic development from pursuing high economic growth to economic development that optimizes growth itself, because development that only pursues growth has brought social impacts on society in the form of poverty, economic and social inequality, and has an impact on the decline environmental quality and biodiversity.

Thus, Indonesia's development must shift from economic development that pursues growth to one that synergizes economic, social, and environmental development.

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