Towards inclusive green growth: a holistic analysis of sustainable development goals in the agritourism sector of Jambi Province

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Abstract

This research aims to measure the extent of inclusive green growth in Jambi Province by considering the components of the Inclusive Green Growth Index that contribute to the potential of agrotourism and sustainable growth. It seeks to identify and analyze tourism potentials that can be leveraged to support inclusive green growth in various districts of Jambi Province. Additionally, the study aims to formulate strategies applicable to tourism villages in Jambi Province to realize agrotourism areas focused on improving the well-being of communities and the environment. This research employs both quantitative and descriptive qualitative methodologies. Data sources include primary and secondary data collected through interviews, observations, literature studies, and documentation. Informants were selected using purposive sampling, covering three regencies in Jambi Province: mountainous areas in Merangin Regency, non-mountainous and non-marine areas in Muaro Jambi Regency, and marine areas in Tanjung Jabung Timur Regency. The results indicate that Jambi Province has not yet achieved green inclusivity, with an Inclusive Green Growth Index value of 3.191. The study identifies several sample areas with green development potential, including Rantau Kermas Village in Merangin Regency, Tangkit Baru Village in Muaro Jambi Regency, and Kuala Simbur Village in Tanjung Jabung Timur Regency. Key findings include the green potential of tourism and plantations, dance arts, micro-hydropower plants (PLTMH), electricity, awards, funding, fishermen, locations, culinary, mangrove forests, customary forests, and marine products. Strategies to realize agrotourism areas based on improving community well-being and the environment include strengthening organizations, enhancing the quality of human resources, developing infrastructure, funding programs, applying customary law sustainability, offering tour packages, forming customary forest management groups, conducting research and development, implementing disaster mitigation measures, promoting tourism, and initiating the adopt-a-tree program.

Keywords: *Agrotourism, Inclusive green growth, Sustainable development, Tourism potential*

JEL Classification: L83, Q01, Q56

INTRODUCTION

Inclusive growth encompasses both the process and outcomes of economic expansion, ensuring that how growth is achieved aligns with the ultimate goal of shared prosperity. This includes improving living standards accompanying economic growth to benefit all segments of society and reduce relative inequality (Dua et al., 2021). In essence, the benefits of inclusive growth should be experienced by the entire society over a sufficiently long and sustainable period. This concept aligns with the Sustainable Development Goals (SDGs) principles, which consist of 17 targets aimed at enhancing living standards alongside economic growth. These targets include: i) no more poverty; ii) no more hunger, achieving sustainable food security and nutrition; iii) improved health for all, aligned with the well-being of people of all ages; iv) ensuring inclusive and equitable quality education, with learning opportunities for all; v) achieving gender equity and empowering vulnerable communities, such as children and women; vi) ensuring sustainable availability of water and sanitation; vii) providing access to sustainable energy; viii) creating fair and sustainable economic growth, full and productive employment for all; ix) building a strong infrastructure to promote inclusive and sustainable industrialization; x) reducing inequality between countries; xi) establishing fair and inclusive human settlements; xii) ensuring sustainable production and consumption patterns, xiii) taking action against climate change; xiv) preserving marine habitats and resources sustainably; xv) preserving, restoring, and sustainably using forest ecosystems, stopping land degradation, and preserving biodiversity; xvi) achieving an inclusive and just society, building effective, accountable, and transparent institutions; xvii) strengthening and revitalizing global partnerships for sustainable development (BPS, 2014)

Discussing inclusive growth also involves exploring the concept of inclusive green growth. This paradigm goes beyond examining capital inflow into a nation by incorporating social equity and environmental sustainability measures. Scholars have devised the Inclusive Green Growth Index to quantify these dimensions. This index aims to guide policymakers in prioritizing infrastructure investments and allocating financial resources to foster high-quality growth. Achieving equitable development necessitates enhanced coordination among institutions to govern, strategize, and execute infrastructure investments and services.

In formulating the index, it is important to note that most indices used to evaluate inclusive green growth are based on the foundational premise of index assessment. Indices advocated by international entities enjoy broader application than those recommended by the academic community. Indicators used in index computations must possess wide scope, measurability, comparability, and relevance, ensuring a comprehensive and dependable elucidation. The index must also be crafted to be readily comprehensible and efficacious (Šneiderienė et al. 2020). The Inclusive Green Growth Index framework emphasizes three pivotal pillars to engender synergy: economic growth, social justice, and environmental sustainability.

As one of Indonesia's provinces situated amid the growth triangle of Indonesia, Malaysia, and Singapore and close to the Malacca Strait (80 miles), Jambi Province boasts significant economic potential (Zevaya et al., 2022). Jambi Province continues to exhibit an upward trend when observed through the lens of inclusive growth. From 2016 to 2020, Jambi's level of inclusive growth remained satisfactory, achieving a score of 6.10 in 2020 (Zulgani & Zevaya, 2021). The indicators analyzed included economic growth, a productive labor force, economic infrastructure, poverty, inequality, gender equality, health levels, education, sanitation, and social protection. Despite this positive value of inclusive growth, further examination is required regarding the value of inclusive green growth in the province.

The Provincial Government of Jambi is currently focusing on addressing issues related to environmental sustainability and natural resources, which also fall within the targets of the Sustainable Development Goals. The Provincial Government of Jambi has established three policies supporting sustainable development: the Governor of Jambi's Decision Number 352/KEP.GUB/SETDA.EKBANG & SDA-4.2/2013 Regarding the Strategy and Action Plan of the Jambi Province REDD+ (Reducing Emissions from Deforestation and Forest Degradation Plus) for the period 2012-2032, the Provincial Regulation of Jambi No.2 Year 2016 Concerning the Prevention and Control of Forest and Land Fires, and the Green Growth Plan of Jambi Province for the period 2020-2045.

In line with these policies, this research aims to provide an academic overview and analysis of the environment, specifically inclusive green growth in the agrotourism sector of Jambi Province. This is motivated by the considerable potential of the agrotourism sector in Jambi Province, which encompasses agriculture, plantation crops, forestry, fisheries, and marine activities, all contributing to community welfare and environmental sustainability. The development of the Jambi Province agrotourism sector is supported by its strategic location and the natural beauty and cultivation of agro-crops. Jambi Province is rich in local wisdom, arts, and culture, which will generate a positive multiplier effect on various aspects and stakeholders such as local communities, farmers, fishermen, livestock breeders, village-owned enterprises managers, entrepreneurs, and village officials and community leaders.

Therefore, the development of agrotourism should involve local communities and utilize local resources, focusing on community empowerment and exploration of natural resource potentials. This approach is essential for determining the targeted tourism areas and promoting environmentally conscious development. In research conducted by Sailesh and Reddy (2024), policies and practices in tourism that are more inclusive and sustainable were analyzed by synthesizing existing research and strengthening the perspectives of indigenous communities. The main objectives included impact analysis, exploring indigenous perspectives, and identifying future research directions. These findings underscore the importance of balancing economic opportunities with cultural preservation and community well-being in developing indigenous tourism. They call for collaborative efforts to uphold the rights of indigenous communities, foster cultural authenticity, and enhance socio-economic outcomes. Over the past decade, there has been a notable surge in interest and research focusing on the sustainability of Indonesia's tourism sector, driven by its vast potential for development and the growing body of impressive research in this field. One study conducted by Kawuryan et al. (2022) examined 861 articles published in the Scopus database until February 2021, focusing on the sustainability of Indonesia's tourism development. Utilizing Vos Viewer software, the analysis identified key contributing authors, citation counts, geographical regions, affiliations, publications, and keyword co-occurrences, highlighting potential research gaps. Findings revealed existing trends and impacts in the literature and new research opportunities in sports tourism, mangrove tourism, sharia tourism, and Indonesia's tourism resilience. Notably, the study underscored the need for future researchers to address these themes to ensure the sustainable development of Indonesian tourism, expanding work in various fields, such as green and sustainable science and technology.

In the province of Jambi, a study conducted by Hidayat et al. (2023) on implementing the ecotourism concept revealed its close relationship to sustainable tourism management. Ecotourism development strategies are highly suitable for preserving ecosystems and play a vital role in conserving and managing natural habitats while creating economic benefits for local communities. As the province with the

highest number of national parks, Jambi Province faces a unique challenge as a pioneer in ecotourism concept development. This research is crucial as it requires an in-depth examination of the limitations and challenges faced during the development process to establish Jambi Province as a model for ecotourism. Qualitative analysis through literature review is essential to determine the extent to which the ecotourism concept is applied in Jambi Province. The objective is to identify the limitations and challenges in the ecotourism development process in Jambi. The expected benefits of this research include expanding knowledge on limitations and challenges in ecotourism development and providing input for the future development of national park tourism in Jambi Province.

The results of this study indicate that the main aspect of ecotourism, conservation principles, is well implemented in Jambi Province, although challenges remain in the social and economic aspects. Some limitations in implementing social and economic principles include the need for community involvement as stakeholders in the planning, implementing, and monitoring of ecotourism development to enhance cohesion among individuals in the community. Furthermore, collaboration between the government, non-governmental organizations, and entrepreneurs still has room for optimization to ensure the equitable and fair distribution of tourism benefits. While ecotourism is seen as a comprehensive product of natural attractions, it is yet to be supported by tourism activities focused on nature and environmental conservation efforts.

Based on several previous studies, most of the research has focused on practices and policies in tourism that are more inclusive and sustainable by synthesizing existing research and strengthening the perspectives of indigenous communities. Furthermore, some studies, particularly in the province of Jambi, emphasize tourism sustainability, focusing on activities centered on nature and environmental conservation efforts. This research attempts to combine environmental and economic elements through an inclusive green economy in the context of sustainability in the agro-tourism sector. Jambi Province has significant potential in the agriculture and tourism sectors, yet no research has integrated economics, agriculture, and tourism through inclusive green economy calculations as an innovation.

METHODS

This research utilizes both primary and secondary data. Primary data is obtained through surveys by distributing questionnaires, conducting in-depth interviews, and holding focus group discussions involving relevant stakeholders such as farmers, fishermen, livestock breeders, business entrepreneurs, village-owned enterprise managers, village officials, and community leaders. The selected samples were chosen using purposive sampling. Purposive sampling has a rich developmental background, with varying perspectives on its simplicity and intricacy. Its primary aim is to ensure the sample aligns closely with the research objectives, thereby enhancing the study's rigor and the reliability of its data and findings. This concept encompasses four key aspects: credibility, transferability, dependability, and confirmability, each contributing to the overall quality and trustworthiness of the research outcomes (Campbell et al., 2020).

The areas examined in this study are villages in Jambi Province with agrotourism potential. These areas are divided into three different characteristics: mountainous regions in Merangin Regency with Rantau Kermas Village as the sample, non-mountainous and non-marine areas in Muaro Jambi Regency with Tangkit Baru Village as the sample, and marine areas in Tanjung Jabung Timur Regency with Kuala Simbur Village as the sample. These three areas are combined to form the scope of the study, considering the strategic location of Jambi Province, its potential natural resources, and the fact that not all provinces in Indonesia have characteristics similar to those of Jambi

Province.

The questions in the questionnaire or interview with the community or village officials cover several related aspects, including local (agrotourism potential), green economy and sustainable tourism, sustainable infrastructure development, participation, awareness, community impact, challenges, and plans. The questions in the questionnaire or interview with the government cover several related aspects, such as agrotourism development, support for the green economy, promotion of sustainable tourism, regulation and oversight, community participation, training and capacity building, challenges, and plans.

Meanwhile, secondary data is gathered from relevant institutions, such as the Central Statistics Agency (BPS), Directorate General of Fiscal Balance (DJPK), and Ministry of Environment and Forestry (KLHK), with coverage at the district or city level in the province of Jambi. In line with Aminata et al. (2022), the data sourced from BPS include Gross Regional Domestic Product, regional income derived from the primary, secondary, and tertiary sectors, age dependency ratio, and data within the social equity dimension. The data from DJPK include government expenditure in the Province of Jambi to boost economic growth and enhance environmental conservation. The data sourced from KLHK include data within the environmental sustainability dimension.

The variables examined in this study include the Inclusive Green Growth Index from the Asian Development Bank and the United Nations Page. The stages of compiling the Inclusive Green Growth Index begin with data normalization. Normalization ensures that data from different indicators are comparable, allowing for a meaningful combination of information. All indicators must be standardized to ensure that higher or lower values consistently indicate better or worse achievement (GIWPS & PRIO, 2017).

Determining the variable scores involves different treatments for indicators with positive and negative influences on the IGGI (Inclusive Green Growth Index). For indicators with a positive influence, the formula used is:

$$Z = 5 \times \frac{x - \min(x)}{[\max(x) - \min(x)} + 1 \cdots\cdots (1)$$

For indicators with a negative influence on the IGGI, the formula used is:

$$Z = -5 \times \frac{x - \min(x)}{[\max(x) - \min(x)} + 6 \cdots\cdots (2)$$

In these formulas, Z represents normalization, x is the value of a particular indicator, max(x) is the highest value of a given indicator, and min(x) is the lowest value of a given indicator. The normalization stage is necessary to convert and standardize the units of measurement of the data so that they can be compared. The result of data normalization will be in the range of values from 1 to 6, with a score of one being the lowest and a score of six being the highest (Aminata et al., 2022).

The formula provided is for normalizing data using the min-max scaling method. In this formula, the numbers 5 and 1 are used to adjust the range of the normalized values to fit the desired range. The number 5 is used to multiply the normalized values of indicators that positively influence the IGGI, giving greater weight to these indicators so that higher values will significantly impact the final IGGI score. The number 1 is added to the numerator of the formula to prevent division by zero, ensuring more stable and valid calculations, especially if the maximum and minimum values of the data are the same.

Similarly, the numbers -5 and +6 are used to adjust the range of the normalized values for indicators with a negative influence on the IGGI. The number -5 is used to multiply the normalized values, indicating that lower values will have a greater impact on decreasing the IGGI score, in line with the negative nature of those indicators. The number +6 is added to the numerator to adjust the normalized results, shifting the values upwards to better align with the desired range and ensuring a more significant impact on the final IGGI score.

The calculation of the IGGI (Inclusive Green Growth Index) comprises three core pillars: economic growth (maintaining robust growth and openness), social equity (advancing human capital development, fostering social inclusion, and mitigating inequality), and environmental sustainability (addressing environmental degradation and the effects of climate change) (Jha et al. 2018).

The calculation of IGGI begins by summing all normalized indicator values within the same pillar. Following this, the average for each pillar is found and combined with the calculation of other pillars. The formula used is:

$$IGGI = \frac{1}{3}(EPA) + \frac{1}{3}(SIPA) + \frac{1}{3}(ERPA) \cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots \quad (3)$$

Where IGGI is the Inclusive Green Growth Index, EPA is the average economic pillar, SEPA is the average social equality/justice pillar, and ERPA is the average environmental sustainability pillar.

Primary data is analyzed qualitatively using the NVivo 12 tool. NVivo manages data from various sources, including focus group discussions (FGDs), in-depth interviews, and other sources such as books, research reports, historical documents, journals, field notes, memos, and more. NVivo facilitates qualitative research in handling non-numeric data, such as text and visual information. Coding is crucial in qualitative research by bridging the gap between data collection and explaining meaning (Priyatni et al., 2020).

The qualitative analysis in this study is designed and employed to analyze interview and questionnaire results, complementing the quantitative findings of the Inclusive Green Growth Index (IGGI) values. This mixed-methods approach allows for a more comprehensive understanding of the data, providing depth to the statistical findings and adding context to the numerical data. By integrating qualitative insights, the research can offer a more nuanced perspective on the factors influencing inclusive green growth in Jambi Province, particularly in the agrotourism sector.

RESULTS AND DISCUSSION

Inclusive Green Growth Index

Inclusive green growth is a macro-level indicator designed to portray comprehensive development quality, considering economic, social, and environmental dimensions. The dimensions and indicators used in calculating the Inclusive Green Growth Index (IGGI) are derived from a previous study conducted by Aminata et al. (2022). This study adopted dimensions and indicators from the Asian Development Bank and a conceptual framework for quality of growth from the United Nations Economic and Social Commission for Asia and the Pacific (United Nations ESCAP, 2013). However, adjustments have been made to align them with the data conditions in Jambi Province. The following are the dimensions and results of the analysis of the Inclusive Green Growth Index of Jambi Province:

Table 1. Scores of economic, social equality, and environmental sustainability dimensions, Jambi Province, 2023

Dimensions	Indicators	Scores
Economic		
Gross Regional Domestic Product	Agriculture, Forestry, and Fisheries	6.00
	Mining and Quarrying	5.45
	Manufacturing Industry	2.87
	Electricity and Gas Supply	1.01
	Water Supply, Waste Management, and Recycling	1.03
	Construction	2.38
	Wholesale and Retail Trade; Repair of Motor Vehicles and Bicycles	2.83
	Transportation and Warehousing	1.60
	Accommodation and Food Services	1.21
	Information and Communication	1.79
	Financial and Insurance Services	1.42
	Real Estate	1.27
	Corporate Services	1.20
	Government Administration, Defense, and Social Security	1.57
	Education Services	1.61
	Health and Social Activities	1.25
	Other Services	1.19
Age Dependency Ratio	Total Labor Force	1.00
	Total Non-Labor Force	1.00
	Female Labor Force	1.00
Government Expenditure in the Province of Jambi to Boost Economic Growth	Local Government Expenditure	1.37
	Capital Expenditure	1.08
	Unpredicted Expenditure	1.01
	Transfer Expenditure	1.09
Government Expenditure in the Province of Jambi to Enhance Environmental Conservation	Irrigation	1.60
	Forestry	1.05
Regional income is derived from the primary sector.	Agriculture, Forestry, and Fisheries	6.00
	Mining and Quarrying	5.45
Regional income sourced from the secondary sector	Manufacturing Industry	2.87
	Electricity and Gas Supply	1.01
	Water Supply, Waste Management, and Recycling	1.03
	Construction	2.38
Regional income is derived from the tertiary sector	Wholesale and Retail Trade; Repair of Motor Vehicles and Bicycles	2.83
	Transportasi dan Pergudangan	1.60
	Accommodation and Food Services	1.21
	Information and Communication	1.79
	Financial and Insurance Services	1.42
	Real Estate	1.27
	Corporate Services	1.20
	Government Administration, Defense, and Social Security	1.57
	Education Services	1.61
	Health and Social Activities	1.25
	Other Services.	1.19
Average of the economic dimension		1.90
Social Equity	Gini Coefficient of Jambi Province	1.00
	Percentage of Working-Age Population Ratio	3.47
	Percentage of Poverty Rate	5.63
	Life Expectancy	4.63
	Average Years of Schooling	1.43
	Percentage of Access to Adequate Sanitation	5.04
	Percentage of Access to Electricity	6.00
	Access to Clean Water Source Percentage	5.02
Average of the social equity		3.75
Environmental Sustainability	Water Quality Index	6.00
	Air Quality Index	4.79
	Land Cover Quality Index	1.00
Average of the environmental sustainability		3.93

Source: BPS, DJPK, KLHK processed, 2023.

After obtaining an overview of the average scores for the Economic Dimension, Social Equality Dimension, and Environmental Sustainability Dimension, the next step is to calculate the Inclusive Green Growth Index (IGGI) using the previously mentioned formula.

The obtained value for the IGGI is 3.191. This indicates that the Province of Jambi has not yet reached a high level of green inclusivity. According to the World Economic Forum (2017), the inclusive range of values falls between 1 and 7, with a higher inclusive index indicating a better situation. Conversely, a value approaching 1 suggests a worse condition.

Qualitative analysis of inclusive green growth in the Province of Jambi

Based on the in-depth interviews and focus group discussions conducted by the researchers together with respondents ranging from the village level to the local government, the results obtained are as follows (Figure 1):

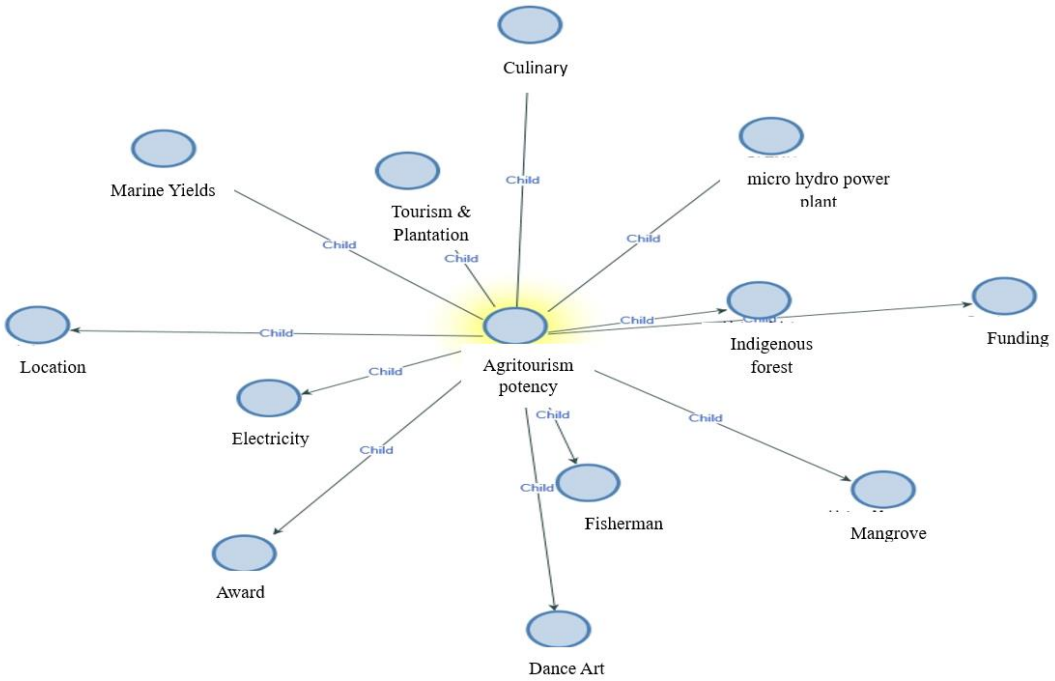

Figure 1. Jambi Province's potential for inclusive green growth in the agritourism sector

The figure illustrates several potential areas for inclusive green growth in Jambi Province's agrotourism sector. These areas include: 1) Tourism and plantations; 2) Dance arts; 3) Micro-hydro power plants (PLTMH); 4) Electricity; 5) Awards; 6) Funding; 7) Fishermen; 8) Locations; 9) Culinary; 10) Mangrove forests; 11) Indigenous forests; 12) Marine yields

The most dominant potentials for inclusive green growth in Jambi Province are plantation tourism, culinary arts, funding, micro-hydro power plants, and customary (indigenous) forests. The potential for tourism and plantations is particularly concentrated in the Merangin and Muaro Jambi regions, especially in Tangkit Baru village in Muaro Jambi, known for its pineapple production. This also relates to culinary products derived from pineapple processing.

Furthermore, in Rantau Kermas village in Merangin, there is significant potential in coffee and cinnamon. Cinnamon bark can be processed into sticks and oil spices without disturbing the indigenous forests that provide flora and fauna habitats. The Village-Owned Enterprises and the Women Farmers Group manage the coffee commodities. The potential of indigenous forests as a source of biodiversity in Rantau

Kermas has been regulated by the Regional Regulation of Merangin District Number 8 of 2016 concerning the Recognition and Protection of the Customary Law Community of Marga Serampas, which the Minister of Environment and Forestry later confirmed in Decree Number 6745 of 2016 concerning the Designation of Marga Serampas Customary Forest covering 24 hectares.

With the designation of this customary forest, village tourism in Rantau Kermas focuses on nature tourism and other forest products. Other tourism potentials in Rantau Kermas include Micro-Hydro Power Plants (PLTMH) in the dam, where water from the customary forest generates electricity.

The potential lies in marine products in Kuala Simbur village in Tanjung Jabung Timur, located in a coastal/marine area. The primary livelihood of most residents is fishing, with culinary potential in products derived from processed marine resources.

In addition to the potential, Jambi Province faces several challenges in achieving inclusive green growth. Figure 2 shows that the most dominant challenges in agrotourism include telecommunications and rural infrastructure, waste management, inter-institutional coordination, human resources, location, marketing, and product branding.

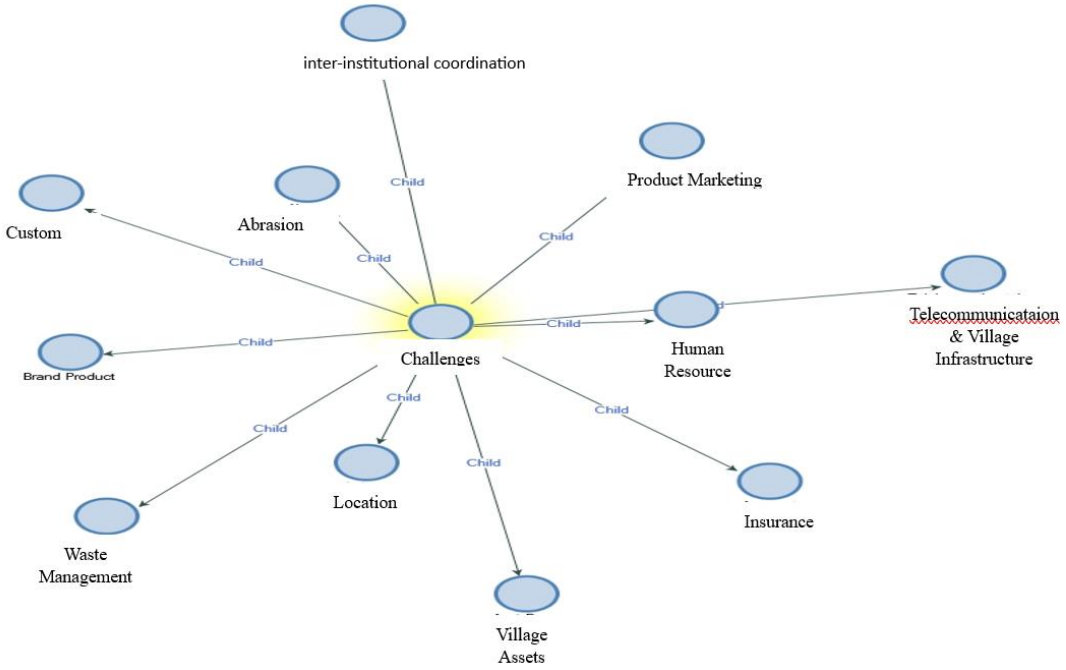

Figure 2. The challenges of inclusive green growth in the agritourism sector in the province of Jambi

Regarding telecommunications and infrastructure, Muaro Jambi Regency, specifically Tangkit Baru village, lacks a power generator. The village's facilities are limited, with no shaded areas for tourists visiting the pineapple plantation during hot weather, as lush trees are scarce to ensure optimal pineapple growth. In Merangin Regency, Rantau Kermas village faces challenges such as limited telecommunication network access and poor road infrastructure leading to the village. The road to the Lake Depati IV tourist area is severely damaged, resulting in low visitor numbers due to poor accessibility. In Tanjung Jabung Timur Regency, Kuala Simbur village has narrow and insufficient road infrastructure. While small boats facilitate sea travel, a bridge is used by the community to distribute village products. Access to clean water remains challenging due to the area's peatland nature, necessitating the local government's

construction of borehole wells. According to Alan (1989), when analyzing time series data and estimating a production function, infrastructure plays a substantial role in output, significantly influencing total factor productivity growth.

Efficient recycling and careful waste handling are crucial to preventing hazardous impacts on end-users and the environment. Developing countries often face illegal dumping, particularly electronic waste (e-waste), without adhering to safety measures or proper recycling protocols. Regular health check-ups for workers engaged in recycling are essential. Waste management remains a critical concern for preserving and sustaining our world. Some agrotourism areas lack waste storage facilities such as trash bins and waste management and processing packages, particularly in regions with tourism potential.

Coordination among institutions is necessary to share information and avoid overlapping goals. For example, in some areas of Merangin Regency dominated by the Kerinci Seblat National Park (TNKS), investments are restricted despite the potential for stevia cultivation.

Human resources are another significant challenge. There is a need for awareness campaigns on green economy concepts for the local population. Technological innovation is crucial in human endeavors, positively impacting the environment (ED, 2011). While some communities have adopted green economy activities, they may not fully understand the concept, reducing their awareness of creatively and sustainably utilizing green economic potential. For instance, Tangkit Baru village residents use organic fertilizer from pineapple waste without realizing its contribution to green growth. Additionally, there is a lack of human resources capable of converting pineapple waste into renewable energy, necessitating collaboration to strengthen human resources.

Marketing and branding of products also pose challenges. Many small and medium enterprises (SMEs) lack a broad market share, and continuous efforts in local product branding are needed to make the potential of these product-producing areas widely known.

In maximizing potential and minimizing challenges faced in achieving inclusive green growth, it is necessary to implement strategies related to the economic dimension, social dimension, and environmental sustainability dimension. Based on the executive summary outlined in the Global Green Growth Institute document (Bappenas, 2015), green growth in Indonesia is expected to yield five benefits: the reduction of greenhouse gas emissions, healthy and productive ecosystems providing environmental services, social, economic, and environmental resilience, inclusive and equitable growth, and sustainable economic development.

Figure 3 provides Inclusive green growth strategies for the agritourism sector in the Province of Jambi. Organizational governance becomes the primary strategy for creating inclusive green growth. The involvement of organizations, from local government entities to community organizations, collaborates to oversee and monitor all aspects and activities. These activities include the sustainability of customary forests, micro-hydropower plants (PLTMH), and ecotourism, which can work together to create agricultural, plantation, forestry, and fisheries-based tour packages. The Adopt-a-Tree program in Rantau Kermas Village is a significant strategy that needs strengthening. Income from these adopted trees is used for village development, social funds, and other village benefits. This program has yielded coffee harvests, producing coffee beans and powder managed by MSMEs and village-owned enterprises with assistance from village funds. Participants in the adopt-a-tree initiative receive a certificate as adoptive parents, pay a fee of Rp 200,000, and register on the website. This program has been running

successfully, and there is hope that similar programs will be initiated for other natural potentials in different regions.

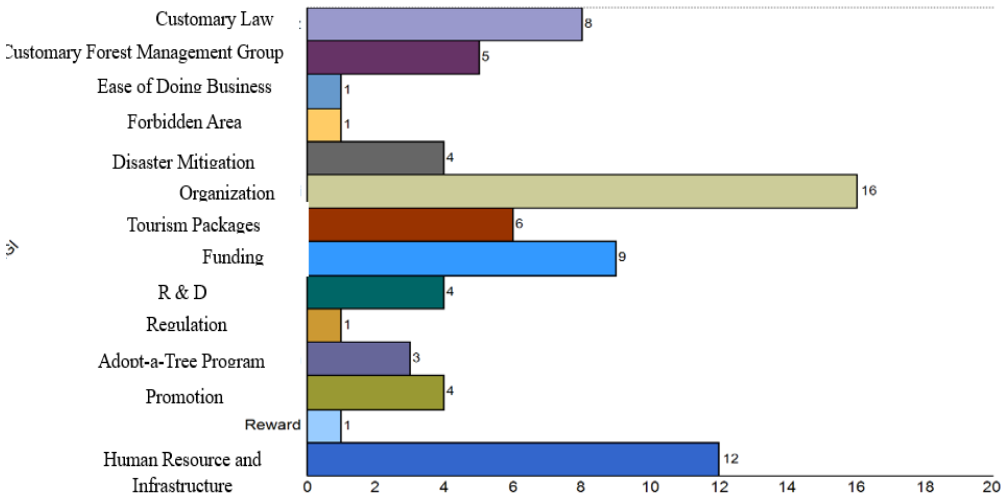

Figure 3. Inclusive green growth strategies for the agritourism sector in the Province of Jambi

Furthermore, the continuous implementation of customary law policies is necessary. According to previous research, implementing customary law in forest management has proven highly effective in promoting forest sustainability. This approach integrates natural, ecological, and social characteristics into the management of each forest ecosystem. Customary law is a guiding principle to foster community harmony and order, providing an alternative means for forest protection. Further research is essential to evaluate the effectiveness of integrating customary law into formal legal frameworks and forest management policies, particularly in the context of climate action. Collaboration with local governments and other stakeholders is crucial to ensure the recognition of customary law and the traditional knowledge held by indigenous peoples in the sustainable management of forests (Asteria, Brotosusilo, Negoro, & Sudrajad, 2021). In the event of a violation of customary law, especially related to environmental damage and conflicts with the local culture, customary fines are imposed, such as purchasing a goat, buying rice or basic necessities, and monetary penalties. This customary law is still applicable in Rantau Kermas Village, Merangin Regency.

Moreover, promoting tourism and local products should be pursued by leveraging various media, including electronic media. To support widespread promotion through electronic media, smooth internet access and enhanced capabilities of business operators in promoting their products through training are essential. Emergency response training, or disaster mitigation, is also crucial for early disaster prevention in disaster-prone areas. For example, Rantau Kermas Village in Merangin Regency is prone to flash floods and earthquakes. Therefore, the community is familiar with initial rescue measures in disasters. Additionally, patrols to prevent illegal logging and protect wildlife have been carried out by the residents of Rantau Kermas Village. Disaster mitigation has also been implemented in Kuala Simbur by training coastal communities to respond promptly in drownings and flash floods.

All these initiatives will become tangible policies with adequate funding programs, both from the central government and locally, focusing on green financing. Furthermore, improving the quality of human resources aware of the importance of

green growth benefits, coupled with the support of adequate green infrastructure, will contribute to a high value of inclusive green growth in Jambi Province.

CONCLUSION AND RECOMMENDATIONS

Conclusion

Based on the inclusive green growth index calculation, the obtained value is 3.191. This indicates that the province of Jambi has not yet reached a level of green inclusivity. Several sample areas with green development potential were selected for this study to realize green growth, including mountainous regions in Merangin Regency with Rantau Kermas Village as the sample, non-mountainous and non-marine areas in Muaro Jambi Regency with Tangkit Baru Village as the sample, and marine areas in Tanjung Jabung Timur Regency with Kuala Simbur Village as the sample. Findings from interviews and questionnaires regarding the green potential of Jambi Province in these three sample areas include tourism and plantations, dance arts, micro-hydropower plants (PLTMH), electricity, awards, funding, fishermen, locations, culinary, mangrove forests, customary forests, and marine products.

The strategies implemented by the tourism villages in the Province of Jambi to realize agrotourism areas based on improving community well-being and the environment include strengthening organizations, enhancing the quality of human resources, developing infrastructure, funding programs, applying customary law sustainability, offering tour packages, forming customary forest management groups, conducting research and development, implementing disaster mitigation measures, promoting tourism, and initiating the adopt-a-tree program.

Recommendations

Providing fiscal incentives for green businesses by offering tax incentives and tax credits for those adopting environmentally friendly practices and green technologies is essential. Supporting green start-ups through financial support and training for developing green technologies and solutions is also crucial. Encouraging the government and private companies to adopt green procurement policies by giving preference to environmentally friendly products and services, including renewable energy, electric vehicles, and recycled products, can significantly contribute to sustainable development.

Allocating a budget for investments in green infrastructure, such as public transportation networks, clean water management, and improving energy efficiency in public buildings, is necessary. Developing education and training programs to equip the workforce with skills required in green sectors of the economy, such as renewable energy, green technology, and environmental management, will enhance human capital. Facilitating access to financing for small and medium-sized businesses focusing on green projects, possibly through the development of microfinance institutions specializing in such financing, is recommended. Establishing strategic partnerships between the public and private sectors can identify investment opportunities in green projects and facilitate sustainable collaboration.

Ensuring community access to education and training to acquire skills needed in green sectors of the economy, including renewable energy, green technology, environmental management, and sustainable agriculture, is vital. Facilitating access to financing for small and medium enterprises (SMEs) focused on green projects through low-interest loans and training on financing access can boost their growth. Inclusivity must empower women by ensuring active participation in green sectors and supporting them to initiate sustainable micro and small businesses through entrepreneurship

training, financial support, and market access.

Involving the community, especially vulnerable groups and local communities, in decision-making related to green projects and environmental policies through public consultations, participatory meetings, and community participation mechanisms ensures inclusivity. Collaborating with non-governmental organizations (NGOs) and the civil sector to identify community needs and develop inclusive programs that respond to those needs is essential for sustainable development. Promoting the empowerment of local communities in managing natural resources and green projects through training, technical support, and recognition of traditional rights will strengthen local involvement.

Ensuring equitable access to green technologies, such as solar panels, energy-efficient technologies, and environmentally friendly waste management systems, will enhance environmental sustainability. Promoting efficient waste management practices, including waste reduction, electronic waste management, and developing recycling programs with local community involvement, is crucial. Protecting and restoring natural ecosystems, including forests, rivers, and wetlands, is vital for environmental sustainability and the livelihoods of local communities. Ensuring equitable access to clean water and sanitation and educating the community about water conservation practices and clean sanitation will improve public health.

Safeguarding the rights of indigenous communities to their land, which often holds traditional knowledge about environmental sustainability, is necessary. Providing technical assistance and training to farmers and local communities on sustainable farming practices, reforestation, and the sustainable management of natural resources will support local development. Enhancing the preparedness and capacity of local communities to address the potential impacts of natural disasters resulting from climate change is essential for resilience.

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