

COMMUNITY EMPOWERMENT IN NATURAL RESOURCE MANAGEMENT BASED ON LOCAL WISDOM

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Abstract

The aim of this research is to describe development in Indonesia which still ignores aspects of environmental sustainability. Development that is expected to provide benefits turns out to carry risks from its implementation. True development has a close relationship with the environment. When development cannot pay attention to aspects of environmental sustainability, the environment is not only deer but can also be destroyed. Environmental extinction means the extinction of humans themselves. Sustainable development is present as a paradigm that is expected to provide solutions to the negative impacts that arise as a result of development. In its implementation, the Indonesian Government has enacted Law Number 32 of 2009 concerning Environmental Protection and Management. Efforts that can be made to implement environmentally sound sustainable development in Indonesia include emphasizing environmental law, auditing and supervising AMDAL, RRAN and the community, as well as the need for a triangular partnership between the government, business world and civil society in an equal relationship without ignoring economic law, ecology, and civilization.

Keywords: Empowerment, natural resources, local wisdom

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I. Introduction

Indonesia has very diverse natural wealth, both biotic and abiotic, renewable and non-renewable. Rich natural resources such as forest resources are called green gold, emerald green pearls orbiting the equator, and natural resources such as

rivers and lakes are sometimes metaphorically called blue gold. Apart from that, Indonesia has many reserves including gold, nickel, tin, oil, gas and minerals. Indonesia's natural wealth and beauty currently does not provide much happiness, let alone prosperity, for the Indonesian people (M.S. et al., 2025).

Significant obstacles hinder the enforcement of environmental laws in Indonesia, particularly those relating to natural resource management regulations. This management includes aspects of exploitation and management, especially in the fields of plantations, forestry, mineral and coal mining, as well as oil and natural gas extraction. When these industries are used to drive economic growth, environmental issues often arise. As an effort to overcome this problem, MPR Decree Number 2. IX/MPR/2001 concerning agrarian reform and natural resource management was issued; However, its implementation is still in the early stages (Agustus et al., 2025).

East Kalimantan Province is the largest natural resource producing province in Indonesia. This condition can be seen from the share of natural resource revenues received by East Kalimantan Province compared to other provinces, as determined every year in the Minister of Finance Regulation. In 2010, East Kalimantan Province received natural resource revenue sharing of Rp. 6.97 trillion. This profit sharing is the highest compared to other provinces in Indonesia, where Rp. 2.13 trillion comes from general mining and Rp. 4.84 trillion comes from oil and natural gas. In 2014, conditions apparently did not change, East Kalimantan Province remained the recipient of the highest natural resource revenue sharing compared to other provinces in Indonesia (Chance & Sardi Abdoul, 2025).

Indonesia is also an archipelagic country which is known as an agricultural country, which means that the majority of Indonesian people make their living as farmers. Apart from that, Indonesia is also famous for its fertile soil so that wherever you plant plants they can grow well. Agriculture is the primary sector

in the Indonesian economy. This means that agriculture is the main sector which contributes almost half of the economy. Agriculture also has a real role as a country's foreign exchange earner through exports. Therefore, it is necessary to carry out development in the agricultural sector so that it can compete in domestic and foreign markets. Many local communities, especially in rural areas, have a direct dependence on nature, especially forests, to meet their daily needs. They rely on forests to obtain firewood, building materials, food, traditional medicines, as well as sources of livelihood such as plantations, agriculture, fishing or ecotourism. Indonesia is also an archipelagic country with large potential for biological natural resources, especially fisheries (Wang et al., 2025).

Apart from biological resources, Indonesia also has large non-biological resources which have the potential to be utilized for the welfare of the Indonesian people. KKP (2017), states that the potential for sustainable fisheries resources in Indonesia is 12.54 million tons per year. Meanwhile, the potential for coral reefs in Indonesia's territorial waters is 2.5 million hectares, which have many roles but are vulnerable to change. Indonesia, as the owner of the largest biodiversity in the world, must face serious challenges in the excessive exploitation of marine and coastal resources, and exploitation that is not environmentally friendly can cause a decline in marine products, which causes losses that have future impacts on future generations (Ma et al., 2025).

For this reason, we need a way so that the exploitation of marine resources prioritizes sustainability aspects, by establishing conservation areas, within these areas regulations will be made to protect the ecosystem within so that it remains sustainable (Setiyono 2016). Indonesia has adopted various policies to regulate the use and conservation of natural resources. However, the effectiveness of these policies is still questionable considering the various existing problems, such as deforestation, environmental degradation and land conflicts. One of the social problems that people often talk about today is waste. Waste is one of the main elements of environmental pollution (Gallegos-Riofrío et al., 2025).

Waste problems often occur in several non-industrial countries, including Indonesia. Lack of discipline regarding cleanliness can create a chaotic atmosphere due to piles of rubbish, which can cause unpleasant odors, flying flies and various diseases. During the rainy season, abandoned rubbish can clog drainage channels, causing flooding. For example, Parepare City, as one of the cleanest cities in Indonesia, experiences flooding almost every year due to piles of rubbish that are not handled properly. This pile of rubbish blocks the flow of rainwater on the surface so that the flow of water only focuses on one point, causing flooding when rainfall is high. According to the National Waste Management Information System (SIPSN) report, in 2020, waste generation in Indonesia reached 32 million tons. Even though in 2022 there will be a decrease to 29 million tonnes, poor waste management will still have serious impacts on health and the environment and can cause disasters. Plastic waste is a major concern because of the total plastic waste of around 65 million tonnes every year, 45 percent is not managed properly (Insani & Haryono, 2025).

If there is no serious handling, the amount of plastic waste in the environment could reach 12 billion tons in 2050. According to the National Waste Management Information System (SIPSN) report, in 2020, waste generation in Indonesia will reach 32 million tons. Even though in 2022 there will be a decrease to 29 million tonnes, poor waste management will still have serious impacts on health and the environment and can cause disasters. Plastic waste is a major concern because of the total plastic waste of around 65 million tonnes every year, 45 percent is not managed properly. If there is no serious handling, the amount of plastic waste in the environment could reach 12 billion tons by 2050. Here, the question arises as to whether development really brings changes for the better or whether the better changes produced by development can also pose risks that can be detrimental (Ciano et al., 2025).

II. Theoretical Review

The role of local wisdom in natural resource management

So far, local wisdom has not been developed to become a reference for state officials. The existing forestry political policies, apart from being centralized, are also authoritarian and repressive. Many local wisdoms in forest management eventually fade. In many cases, local wisdom becomes extinct along with the loss of biodiversity, along with environmental damage caused by external actors who come and work in the name of development. But at the beginning of the 21st century, local wisdom discourse has been recognized as an important part of future development programs (Owusu-Kwarteng et al., 2025).

Interest in local wisdom/traditional ecological knowledge has grown in recent years, due to the recognition that this knowledge can play a role in the conservation of biodiversity, conservation of rare species, protecting areas, ecological processes and sustainable use of resources for future generations (Berkes, F.; John C. and Carl F., 2000:1251). Therefore, there needs to be an effort to revitalize local wisdom as a basis for empowering forest village communities. Local wisdom is resilience and the power to grow which is then manifested through a view of life and various life strategies carried out by local communities to answer various problems in meeting needs and maintaining culture. Sasi local wisdom is the answer to survive and grow culture as well as a system for preserving the environment (Rasmussen & Pouliot, 2025)

Hasani (2014) said that conservation areas prioritize the community or what is usually called Community-Based Management, abbreviated as CBM, is a human-centered development strategy, in this system the community itself is given responsibility for managing the resources they own, where the community can define their needs, goals and aspirations and make decisions for their welfare. In order to improve the tourism sector, areas that have unique natural attractions and distinctive characteristics must be encouraged to be developed. The development of the village's potential as a tourist area must be developed in

accordance with the socio-cultural characteristics that are ingrained in society. The development of this tourist village can be based on local wisdom and is one strategy to increase the income of the surrounding community. The development of local natural, agricultural, social and cultural potential can become a tourism-based development of community potential. Nature tourism-based community development can include the role and participation of rural communities (Gaurav et al., 2025).

Therefore, the development of villages into tourism areas must be in line and harmonized with the development of human resources. Efforts and programs carried out in developing tourist villages must be able to encourage community members to participate on an ongoing basis, so that the potential of a village and community can be developed optimally. By utilizing and exploring the potential of villages and communities on an ongoing basis, the development of tourist villages can have an impact on improving the welfare of village communities. So the development of a tourist area cannot be separated from the development and exploration of the tourism potential itself starting from the regional or lowest level (Aditya, 2018:20).

According to Wengert in Budi Riyanto (2005:36-37), in essence there are 5 (five) benefits from community participation, namely: (1) Community participation as a policy making process. Because society as a party that has the potential to bear the consequences of a policy has the right to be consulted; (2) Community participation is a strategy. Through community participation, a government policy will receive support from the community, so that the decision has credibility; (3) Community participation is utilized as a communication tool for the government to obtain input and information in decision making, thereby producing responsive decisions; (4) Community participation is utilized as a way to reduce or defuse conflict, through efforts to achieve consensus on existing opinions. The assumption underlying this perception is that exchanging ideas and views can increase understanding, tolerance, reduce mistrust and bias; (5) Community participation as an effort to "treat" people's psychological problems

such as feelings of powerlessness, lack of self-confidence and the feeling that they (participants) are not an important component in society (Kachali & Loos, 2025).

Community empowerment strategy in environmental management

Indonesia, as the owner of the largest biodiversity in the world, must face serious challenges in the excessive exploitation of marine and coastal resources, and exploitation that is not environmentally friendly can cause a decline in marine products, which causes losses that have future impacts on future generations. For this reason, a way is needed so that the exploitation of marine resources prioritizes sustainability aspects, by establishing conservation areas, within these areas regulations will be made to protect the ecosystem therein so that it remains sustainable (Setiyono 2016).

According to Santoso (2022), an entrepreneurship training program that involves the use of waste as raw material for products can increase people's income by up to 40% while reducing the volume of waste in the environment. Apart from that, Rahmawati and Putra (2021) in their research also showed that managing coconut shells into an economically valuable product can be an alternative solution for reducing organic waste in coconut producing areas. Apart from that, Haryanto (2019) stated that the use of digital technology can be the main driving factor in expanding the marketing reach of MSME products. The 2004 tsunami disaster had a huge impact on the coastal areas of Aceh Besar. This condition shows the importance of sustainable environmental management to increase community resilience to disaster risks. The study (Sunkur et al., 2023) emphasizes the importance of ecosystem-based mitigation, such as mangrove planting and coastal habitat restoration, as important steps in reducing the impact of future disasters (Utami et al., 2025).

In addition, research (Danielsen et al., 2022) shows that participatory approaches involving communities in environmental conservation programs can increase collective awareness and strengthen local capacity to deal with environmental risks. Given these conditions, environmental management strategies in Aceh Besar need to focus on a combination of ecosystem-based conservation and community empowerment, which has been proven effective in building resilience to disasters in other coastal areas (Irwansyah et al., 2024). However, their understanding of the importance of sustainable environmental management is still limited, which has the potential to cause more severe environmental degradation and increase the impact of disasters in the future. Good environmental management, such as planting mangroves to resist abrasion, has proven effective in reducing the impact of coastal disasters (Danielsen et al., 2005; Hashim et al., 2013).

However, implementing this kind of mitigation effort requires education and community empowerment so that it can be carried out effectively. In line with the Indonesian Tourism Vision and the goals of tourism development in accordance with Law Number 25 of 2000, a new paradigm has emerged, namely the development of tourism with an "integration" pattern, namely tourism development where tourists live together with the local community. The development of this tourism pattern is known as "community base tourism", namely tourism development is developed where all tourist activities take place and mingle with rural communities. The added value obtained by community/rural based tourism is (1) rural residents can act as actors, they can provide accommodation for tourists, provide food and drinks, laundry services, transportation services, and other services. (2) increasing consumption of local production (vegetables, fruit, arts and crafts, special foods, etc.), work so that it will encourage the continuity of businesses based on tradition and locality. (3) encouraging the empowerment of local workers, for example as providers of arts and culture attractions, crafts, etc. (4) increasing public awareness of the values of local traditions and culture as well as the uniqueness of the natural environment.

A tourist village refers to a village area that has unique tourist attractions, both because of the characteristics of the rural natural environment and the socio-cultural life of the community that is elaborated upon. in an interesting and natural way, with the development of tourism support facilities, good and planned management is very important so that the village can receive and attract tourist interest (Tyas Arma Rindi 2019).

The village concept involves the development of a village area without changing the existing structure, but focuses more on increasing the potential of the village by utilizing existing elements to make tourism products. This involves a series of tourism activities or activities that meet various tourist travel needs in terms of attraction and other aspects (Akbar, Moh Ardhi 2018). Therefore, active involvement is needed from various elements to succeed in community empowerment efforts in the context of tourist villages. This involves participation and critical awareness of the community to build tourist villages, as well as courage and awareness to explore the potential that exists within them. According to Chafey and Smith (2022), digital marketing includes various economic-based marketing techniques, such as social media, SEO (Search Engine Optimization), and digital advertising, which can help small and medium businesses reach consumers more efficiently (Somwethee et al., 2025).

The impact of natural resource exploitation on social life

Coal is a non-renewable natural resource, this means that once the mining material is used up, it will not be able to recover or return to its original state. Coal mining, like mining in general, is a series of activities that include stages of general investigation, exploration, feasibility studies, construction, mining, processing and refining, transportation and sales and post-mining. Mining activities are complex and very complex business activities, full of risks, long-term activities, involving high technology, capital intensive and regulatory rules issued by several sectors. Apart from that, the fundamental characteristics of the

mining industry are clearing land and changing the natural landscape so that it has the potential to change the ecosystem structure of a region both in terms of biology, geology and physicality as well as the socio-economic and cultural structure of society. The existence of the coal mining industry can have an impact on the environment, social and economy of local communities. In terms of negative impacts, mining is more often understood as an activity that causes more problems than benefits, ranging from disturbing health, conflicts over land, environmental damage, to ex-mining areas that are left gaping. On the other hand, there are many benefits from mining activities, such as opening up isolated areas, a source of original regional income, opening up employment opportunities and also being a source of foreign exchange for the country (Hakim I, 2014).

Kubung Village, which is located in South Bacan District, South Halmahera Regency, is one of the areas in North Maluku that has natural resource potential, especially mining minerals such as gold and nickel. In recent years, mining activities in this area have increased significantly, both legally and illegally. Mining is often considered a sector that can improve the economic welfare of society through employment opportunities and increased income. However, on the other hand, mining also has complex social and economic impacts on local communities, including changes in living patterns, social conflict and economic inequality (Saputra, 2024).

Mining in an area can cause youth unemployment, school dropout, family disorganization, drug abuse and prostitution. Other negative social impacts include mass migration and continued population growth. The surrounding environment is also affected by the mining sector, such as land, and vegetation can quickly be damaged, thereby destroying biodiversity (Rey-Martí et al., 2023). Exploitation of biological natural resources can have a negative impact on the environment and society. This can happen due to excessive exploitation. Apart from excessive exploitation, there have also

been cases of water pollution in several Indonesian waters and physical ecosystem degradation of mangroves and coral reefs (Dahuri et al., 1996 in Lampe et al., 2005).

Exploitation of natural resources that ignores the environment will threaten the sustainability and availability of these natural resources. Article 33 paragraph (3) of the 1945 Constitution stipulates that "Earth and water and the wealth contained therein are controlled by the State and used for the greatest prosperity of the people". One of the important principles in utilizing natural resources in Indonesia's development is prioritizing the management of renewable natural resources. Therefore, in order for its use to be sustainable, exploitation of natural resources must be accompanied by protective measures (Indara, 2018). Exploitation of natural resources in whatever form and wherever carried out, can certainly have an impact on spatial use including its implications for the environment (natural and socio-cultural) as well as the socio-economic conditions of local communities and connected surrounding communities (Pariella, 2019).

It is indeed hoped that the exploitation of natural resources will dynamize the economic growth of local and regional communities, so that it can contribute to increasing the level of community welfare. This ideal desire is of course accompanied by the hope that negative impacts on local and surrounding communities can be minimized (Lubis et al., 2021). This research is supported by previous research conducted by Ferly Ilyasa, et al (2020) entitled "The Effect of Exploitation of Natural Resources on Poverty in Fishing Communities", the results of the research show two aspects, namely: first, the ease of investment by foreign parties who can exploit natural fisheries resources in Indonesia. Second, the influence of exploitation of marine natural resources on poverty in fishing communities (Ilyasa et al., 2020).

Policies and Regulations in Preserving Natural Resources

Samsudin et al (2024) conducted research that utilized government documents to identify Indonesian policies in managing fisheries resources. This is one of the main principles which also includes protecting fisheries resources and maintaining the balance of marine ecosystems. Marine conservation areas are protected, fishing quotas are set, and fishing gear that damages the marine environment is prevented. Apart from that, this regulation also clarifies ecosystem-based management. However, obstacles such as complicated regulations, lack of institutional resources, and resistance from parties involved in the fishing business often arise in its implementation. Increasing organizational capacity, fostering more cooperation between government agencies, and involving the community in the decision-making process are some of the solutions that can be taken (Hossain et al., 2025).

Nugroho (2022) in "Analysis of Natural Resource Regulations in Indonesia: Mining case study" discusses the importance of regulations that are adaptive and responsive to changes in environmental and social conditions. Nugroho underlined that regulations must be accompanied by strong monitoring mechanisms to avoid excessive exploitation. This study also emphasizes that good regulations must be able to balance economic interests and environmental protection, and must be prepared based on scientific data and involve various stakeholders. It is indeed hoped that the exploitation of natural resources will dynamize the economic growth of local and regional communities, so that it can contribute to increasing the level of community welfare. This ideal desire is of course accompanied by the hope that negative impacts on local and surrounding communities can be minimized (Lubis et al., 2021).

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Nagara (2017) believes that Law Number 39 of 2014 contains violations that are subject to administrative sanctions as outlined in Article 19.6. Administrative sanctions can be applied to five different actions: granting rights to plantation land, protecting community land rights, and refusing to direct the growth of community agriculture. Revocation of plantation permits, fines, and/or temporary permits for business activities are examples of actions that are subject to sanctions (Gitima et al., 2025).

Ismi (2014) found that there are important differences between mining rights and land rights. The ability to mine underground resources does not deprive a person of their rights to the land above them. A number of UUPA provisions governing temporary and permanent rights to land regulate mining policy. Mining business permits are issued in the form of IUP, IPR, or IUPK. Management of natural resources (SDA) in Indonesia plays an important role in supporting national development and community welfare. As an archipelagic country with extraordinary biodiversity, Indonesia has great potential in various sectors such as mining, forestry, fisheries and energy. However, unsustainable use of natural resources has given rise to various serious environmental problems, including deforestation, land degradation, water and air pollution, and loss of biodiversity. Therefore, effective and sustainable natural resource management is an urgent need for the sustainability of the ecosystem in Indonesia (Asian Development Bank, 2005; Eddy, 2021).

The main challenge for natural resource management in Indonesia is the conflict between economic interests and environmental conservation. Infrastructure development, mining expansion and land conversion often ignore environmental impacts. Legal policies must balance both with clear regulations, effective supervision and strict sanctions. In addition, coordination between government agencies is also important, because overlapping policies and conflicts of authority often hinder efficiency. Legal policies need to strengthen synergy between related institutions (Gunawan et al., 2024; Trihatmoko & Susilo, 2024).

III. Methodology

Research methods, To understand and evaluate the Indonesian government's policies in managing natural resources, this research uses descriptive methods. This study was conducted in Indonesia with a concentration on areas that have large natural resource wealth. The focus of this study is on government policies related to natural resource management. Secondary data used in this research comes from government papers, policy documents, scientific journals, media and other related publications. It is hoped that by using this approach, a comprehensive understanding of the Indonesian government's policies relating to natural resource management and how these policies are implemented in practice will be achieved (Buttazzoni et al., 2025).

Based on the results of the literacy analysis, it can be concluded that, an approach that focuses on active community participation in managing natural resources in a sustainable manner, by utilizing traditional values, knowledge and practices that have been passed down from generation to generation. This empowerment aims to improve community welfare, maintain ecosystem balance, and

strengthen community identity and independence in facing environmental challenges and social change (Caldeira et al., 2025).

The role of future generations must continue to inherit a nature that is still full of sources of prosperity to be able to give them life. When extracting natural resources, nature conservation must always be guaranteed, meaning that taking the results does not damage the auto regeneration of these natural sources. Development planning in order to meet livelihood needs should aim to achieve a dynamic balance with the environment so as to provide physical, economic, social and spiritual benefits. Try to ensure that some of the development proceeds can be used to repair environmental damage caused by development projects, in order to preserve the environment (Mustika et al., 2025).

IV. Results

The role of local wisdom in managing natural resources

The Musi River has long been an icon or symbol for the City of Palembang, and continues to be an alternative mode of transportation for the local community. The oldest city in Indonesia, Palembang, and the Musi River are the lifeblood of the people of Palembang City. Until now, rows of residences, rafted houses and boats continue to line up along the Musi River corridor. This makes Palembang City a river city or water city. Apart from that, the Musi River is used by residents as a river transit route to inland areas. Throughout its history, the Musi River has experienced many changes in function, including drainage and flood management. Apart from that, the Musi River is a popular tourist destination in Palembang City and has significant development potential (Wilson et al., 2025).

The Musi River will be the main focus for the development of the tourism sector in Palembang City in the future. Palembang City, as the capital of South Sumatra Province, has enormous potential as a Musi River tourist destination. The Musi River which divides the city of Palembang is very important as the economic

lifeblood of the community and has extraordinary tourism potential. The development of local wisdom-based tourism villages must involve community participation to preserve nature and local wisdom cultural values. Community participation can be realized by mobilizing and community-based tourism activities. This can be done by forming organizations or community groups that have concern and play an active role in environmental conservation activities in tourist areas (Perez-Alvaro & Boswell, 2025).

The existence of this community organization is a concrete manifestation of the role of the community which is concerned about the potential of natural resources and the development of the village as a tourist area. In this way, preservation of nature can be realized. The concept of realizing local wisdom is rooted and ingrained in the lives of people who have the ability to understand and know their environment well. In this way, society can live in harmony side by side with nature. The community understands how to treat and utilize natural resources wisely and wisely. Management of natural resources and the environment based on local wisdom can be said to be an embodiment of community conservation of the environment. In managing TNBB, the TNBB Center no longer uses a top down approach.

Social forestry development in TNBB is carried out outside the area, except in the form of natural tourism. The social forestry management system in the area has been implemented comprehensively, not to change the status and function of the forest, not to provide ownership of the area, but to provide rights and responsibilities to manage forests as a whole in forest areas designated as social forestry areas. In addition, partnerships have been formed with indigenous communities as forest village communities as well as the real functioning of traditional village institutions in forest management. Environmental protection and management must take into account the characteristics of natural resources, ecosystems, geographical conditions, local community culture and local wisdom. Economics and ecology are two realities, practical aspects of life that shape the culture of a society. By optimizing local knowledge of local communities,

harmonization of space utilization control in environmentally friendly tourism areas will truly contribute to the development of sustainable tourism (Tapia & Reith, 2025).

Sasi comes from the word "sanction" which means prohibition, implementation, and utilization as well as maintenance and supervision in maintaining the balance of the environment and natural resources so that both can be utilized continuously for the next generation. Sasi is a customary law that teaches how humans maintain survival and not use natural resources excessively to create natural balance. Sasi has norms and rules in ways, habits, behavior which contain elements of ethics and norms. is a gift from God or a gift from God that is sacred and holy. They think that this gift must be protected so that it does not become extinct or overexploited. Apart from that, they also believe that forests have magical powers, and are supported by myths passed down from their ancestors. The surrounding community through mythical concepts, ritual practices, forest management, they try to always maintain the relationship between the natural environment so that it remains harmonious. Local people in general are very familiar with the surrounding environment. They live in various natural ecosystems, and have long lived side by side with nature in harmony so they know various ways to utilize natural resources sustainably. The local wisdom possessed by the village community then has implications for both the environment and the lives of the people around the national park area. Forest management activities in national park areas, with the presence of local wisdom, have a positive impact on plant sustainability to maintain ecosystem balance (Moitra & Madan, 2025).

Community Empowerment Strategy in Environmental Management

The economic benefits of the waste bank program are felt by the community. Apart from providing additional income, this program also helps reduce waste management costs at the household level. Waste that was previously only

considered waste can now be turned into a source of income. Data from the Parepare City Environmental Service shows that the waste bank program has succeeded in reducing the volume of waste disposed of in the landfill by 20%. This shows that waste banks not only provide economic benefits but also contribute significantly to environmental conservation efforts. Customers who are active in this program also experience benefits in the form of increased knowledge and skills. Through various trainings organized by the waste bank, customers learn how to sort waste, recycling techniques, and make products of economic value from waste. This knowledge and skills can be used to develop small businesses based on waste management, thereby increasing the economic capacity of the community. Social entrepreneurship in sustainable economic development plays a role as a driver of societal transformation by optimizing local potential to create balanced economic, social and environmental impacts. In the context of Nglanggeran Tourism Village in Yogyakarta, the ecotourism approach is a manifestation of social entrepreneurship that combines local wisdom with environmental preservation as its foundation (Nugroho & Muhamad Supraja, 2017).

This program includes intensive training to become a tour guide who understands cultural and ecological values, homestay management with professional service standards involving the community as the main actor, and the production of handicrafts based on local ingredients, such as chocolate and traditional souvenirs. As a result, this program not only increases people's income through business diversification, but also revives cultural identity that is in danger of being lost due to modernization while maintaining regional biodiversity. This model illustrates the synergy between social and community-based economic innovation, strengthening local economic resilience, and ensuring the sustainability of ecosystems and cultural heritage for future generations. The implementation of social entrepreneurship at the community level often faces complex challenges that hinder the optimization of social and economic impacts, such as limited capital, technology and supporting

infrastructure. The "People's Coffee" initiative in Flores, East Nusa Tenggara, illustrates how empowering local coffee farmers through quality improvement training can produce high quality coffee (Pasandaran et al., 2018).

However, expanding market reach remains a challenge due to lack of access to digital technology and adequate transportation infrastructure. Farmers often find it difficult to sell their products to a wider market, especially in the face of increasingly digital global competition. This situation highlights the importance of strategic collaboration between governments, which can provide basic infrastructure and technology training, and the private sector, which can offer access to e-commerce platforms or broader distribution networks. Social enterprises such as "People's Coffee" have the potential to increase farmer incomes and create more inclusive and sustainable value chains in the agribusiness sector with integrated support (Putera et al., 2025).

The impact of natural resource exploitation on social life

In general, the impact of mining on the environment is a decrease in land productivity, increased soil density, erosion and sedimentation, land movement or landslides, disruption of flora and fauna, disruption of public health and an impact on microclimate changes. Meanwhile, the post-mining impacts that occur are changes in the morphology and topography of the land, changes in the landscape (the shape of the landscape on ex-mining land is usually irregular, resulting in steep holes, mounds of land used by heavy equipment), the land becomes unproductive and prone to potential landslides. Head of Mining Business Development for South Kalimantan Province, Gunawan Sardjito, said that the major impact that occurs from mining businesses/activities is changes in the landscape. Mining has an important role in development by producing raw materials for industry, absorbing labor, as a source of foreign exchange, and increasing local revenue.

On the other hand, mining also produces various negative impacts on the environment. Mining is an activity that carries the risk of pollution and/or environmental damage. There is no mining activity that does not have the potential to pollute and/or damage the environment, as stated by George W. (Rock) Pring: 7 "Mining is inherent (inseparable) from environmental degradation, there is no mining activity that is environmentally friendly. Mineral resource activities affect all environmental media, namely land, air, water, and flora and fauna, as well as the human environment, individual safety and health, local community lifestyle, cultural continuity, social order, and economic life. When considering that the majority of mining impacts are said to be local, mining can cause environmental problems nationally, cross-border and even globally." The findings show that the negative impact of oil exploitation has radically changed the economic lifeline of this once independent oil-producing region for the worse. The quality of life of the average person in this community has declined.

Statistical analysis of the economic impact of oil exploitation in oil producing areas was carried out using Pearson chi-square statistics. Data generated from a survey questionnaire regarding respondents' perceptions of the impact of oil on economic activities was used. Analysis is used to test whether there is a statistically significant relationship between oil exploitation and economic activities in oil-producing areas. The research results show that oil exploitation has had a significant impact on economic activities in oil-producing areas, causing the loss of sustainable sources of income. Exploitation of biological natural resources can have a negative impact on the environment and society. This can happen due to excessive exploitation. Apart from excessive exploitation, there have also been cases of water pollution in several Indonesian waters and physical ecosystem degradation of mangroves and coral reefs. Exploitation of natural resources, especially biological natural resources, must take into account the carrying capacity of the environment. Excessive exploitation will be very detrimental to the environment and society, especially in the future. It was

revealed that excessive exploitation of natural resources without good planning without paying attention to the carrying capacity of the environment has definitely had the impact of disaster and ecological disaster on the sustainability and balance of the ecosystem of human life in this world. The process of excessive exploitation basically denies the essence of the concept of economic democracy as stated in the mandate of article 33 of the 1945 Constitution which prioritizes economic orientation. Excessive exploitation will result in damage to the ecosystem and result in a decline in the population and even the condition of a species that could lead to extinction. Due to this, it is necessary to take conservation measures for biological natural resources that have been exploited. Natural resource conservation is an effort to maintain or protect natural resources so that they do not suffer damage. Conservation activities will always be related to a region or area, where the region or area itself has the meaning of an area with the main function of protection or cultivation (Law No. 32 of 2009).

Policies and Regulations in Preserving Natural Resources

The regulation and institutional structuring of social forestry in its development is better known as the pre-2016 and post-2016 era. This is because when President Jokowi was elected in the 2015 election, massive target changes were made regarding social forestry as part of his direction to develop the country from the periphery. The seriousness of accelerating and increasing the social forestry target is strengthened through 2 things, namely: a) The social forestry area target becomes 12.7 million hectares; b) Raising the status of social forestry since 2015 from previously being the responsibility of a work unit equivalent to echelon II to echelon I level (Directorate General) in the Ministry of Environment and Forestry (Environment and Forestry). These institutional changes and targets require this institution to improve internally and issue regulations that support the President's direction (Wickson et al., 2025).

The target is 12.7 million hectares for social forestry too. Government policy in managing natural resources plays a crucial role in achieving this goal. This policy includes regulations, permits, regulations, as well as conservation and rehabilitation institutions. However, the implementation of this policy often faces various challenges, such as lack of coordination between government agencies, corruption, and pressure from the private sector which is more oriented towards short-term profits. In addition, the involvement of local communities in the decision-making and management processes of BDA is often minimal, thus reducing the effectiveness of the policies implemented. Indonesia has adopted various policies to regulate the use and conservation of natural resources. However, the effectiveness of international policies is still questionable considering various existing problems, such as deforestation, environmental degradation and land conflicts.

This study aims to analyze the government's progress in managing natural resources in Indonesia, identify existing challenges, and provide recommendations for improving these policies in the future. In the plantation sector, government policy must ensure that plantation business activities run optimally and provide benefits to the surrounding community. The administrative sanctions given must be more elective and not just in the form of fines. In the mining sector, government policies must consider land rights and mining rights. Mining rights do not erase rights to the land above them, and must be resolved through an agreement between the parties concerned. It is important to improve coordination between government institutions to ensure that natural resource management policies can be implemented effectively. Good coordination between ministries and related institutions will facilitate the preparation of more integrated policies, as well as speed up the process of supervision and law enforcement.

Apart from that, strengthening the capacity of management institutions is also very important to increase the effectiveness of policy implementation, institutions that have adequate human and technological resources will be better

able to carry out their supervisory and law enforcement duties better. Natural resource management legal policies must also pay attention to the environment, ensure a fair distribution of benefits and burdens among community groups, and protect workers' rights and community access to natural resources. Climate change also affects natural resource management in Indonesia, with impacts such as increasing temperatures and natural disasters. Legal policies need to be responsive to climate change by integrating adaptation and mitigation strategies, such as renewable energy development, forest conservation and sustainable water management.

DISCUSSION

Natural resources are a source of prosperity for all human beings who live in the universe. Without natural resources, human beings will not be able to survive, such as clean air, natural ecosystems and clean nature that can support human life. Use of natural resources that tends to be exploitative will disrupt natural ecosystems. Therefore, there must be a balance between economic benefits and ecological sustainability. Because, we cannot deny the existence of a contradiction between development and the environment. Therefore, developing tourism areas requires an approach that balances community welfare with nature and environmental conservation. In the environmental philosophy known as bioregionalism, bioregionalism is actually more than just environmental sustainability.

Bioregionalism aims to consider economic, environmental and socio-cultural sustainability simultaneously. A development process that is based on granting permission to local communities to manage their economy, ecosystem and social culture in a decentralized or autonomous manner is considered to be able to maintain the balance of these three dimensions of development. The end result is to enable communities to be economically independent in meeting all their basic needs. In line with this, economic development will be achieved in harmony with

the local ecosystem, and the environment will be maintained in a sustainable manner. At the same time, all social and cultural institutions will be preserved and become the principles and soul of overall economic development in harmony with nature, where society grows and develops. In simple terms, the relationship between local wisdom values and natural resource management can be interpreted as the cultural knowledge possessed by a particular community which includes a number of cultural knowledge relating to models of sustainable use and management of natural resources. Therefore, natural resource management based on local wisdom can mean that exploiting natural resources must be carried out with a concept of local wisdom, namely by determining the areas that are designated as areas that must be preserved and must not be over-exploited, where natural resource management must also consider the impacts that will occur in the future caused by current natural resource management. The approach used in natural resource management is that natural resources are only objects that can be manipulated and exploited for economic gain.

This approach is different from the ecological approach which views the earth and everything in it, including nature, from a broader perspective. The earth and its contents as a whole are not considered, like *du u*, as mere chattel, like slaves that can be bought and sold, but the earth and its contents are moral subjects, like humans, and therefore capable of profit. The earth and everything in it is a moral subject that must be respected in its own right. The basis for differences in viewpoints in the use of natural resources is that economics is identical to ecology or what is known as the ecocentric school of thought. Each component of an ecosystem (humans, animals, plants) has the same position/rights in fulfilling their needs and interests. The economic value system applied to natural objects is associated with intrinsic values that cannot be assessed using traditional economic methods alone. Natural resources are used in an environmentally friendly manner (respect and responsibility).

Human well-being is determined by the friendship between humans and nature, including the supply chain of consumption, production and distribution.®

Humans are considered as inhabitants of the ecosystem and have the same status as other living creatures in terms of consumption and production, so resource allocation decisions should be taken not only by the market but also by politics and local communities. Efforts for sustainable use are made by not throwing rubbish carelessly, but in the rubbish bins that have been provided. However, at several points there is still a lot of rubbish scattered around, this is because there are no rubbish disposal facilities. Sustainable use of water has received less attention considering that community activities in preserving water use contribute to the process of water pollution. So it is necessary to create a special place for community needs and a place to treat waste water before it is channeled into irrigation water.

However, this research also identified several obstacles faced in implementing the waste bank program, such as low public awareness and fluctuations in waste prices. This obstacle is also mentioned in previous literature, highlighting the importance of continuous education and price stabilization to maintain the spirit of community participation in the waste bank program. The findings of this research have several important implications for the theory and practice of community-based waste management. From a theoretical perspective, the results of this research support the concept of community empowerment in environmental management. Community empowerment through the waste bank program can increase individual and collective capacity to manage waste effectively. The findings from this research provide several important implications for waste management policy and practice. First, the government needs to strengthen support for the waste bank program through clearer regulations and adequate financial support. Second, the private sector must be involved in managing waste banks to provide technological and market support for recycled products. Third, ongoing education needs to be carried out to increase public awareness about the importance of sorting waste and participating in waste bank programs.

This can be done through public campaigns, integration of waste management material in the school curriculum, and training for the community. Fourth, waste price stabilization needs to be facilitated by the government to ensure that community participation remains high. This can be done through price subsidies for recycled waste or through minimum price policies. Exploitation of natural resources is an act of utilizing a stock of natural resources in an area. Exploitation of natural resources must be able to provide benefits for the welfare of society and the country's economy, although it is not uncommon to find acts of exploitation that result in harm to the environment and society. Because if there is damage to one of the biological natural resources, it can have a negative impact (damage) on other biological natural resources or the ecosystem, excessive exploitation will result in damage to the ecosystem and result in a decline in the population and even the condition of a species which could lead to extinction. Due to this, it is necessary to take conservation measures for biological natural resources that have been exploited. Natural resource conservation is an effort to maintain or protect natural resources so that they do not suffer damage. Conservation activities will always be related to a region or area, where the region or area itself has the meaning of an area with the main function of protection or cultivation.

Government governance policies continue to experience development and improvement in order to achieve sustainable goals. Government policies in various parts of the world within the framework of social justice require important steps in efforts to improve people's welfare, development, natural resource management policies that are carried out involving the community in the context of optimizing these resources in a sustainable manner while supporting environmental conservation efforts. Although there are challenges and obstacles in implementing this policy. such as land and resource conflicts, but efforts continue to be made to improve and expand community-based management models. Natural resources and social forestry are closely related. The state forestry sector as part of natural resources has developed and has

become one of the drivers of economic development as well as a controlled support for life. Experience has proven that social forestry will be successful if the community is involved and has access to forests, because there are 2 benefits to be gained, namely local wisdom in protecting forests and community welfare which indirectly helps the state in overcoming mysticism. This research aims to present developments in social forestry development. problems and recommendations in the context of national development planning in Indonesia.

V. CONCLUSION

Therefore, to achieve the desired balance between these two aspects, an approach is needed that is able to take into account and accommodate all interests involved, both from an economic, socio-cultural and environmental perspective. By looking at this alignment, the development goals pursued are not only limited to achieving the welfare of society as a whole, but also to maintaining a sustainable environment. It is hoped that the development that occurs will produce a prosperous society, accompanied by maintaining a well-maintained environment. In this way, the vision of sustainable and inclusive development can be realized, where the interests of all parties are met in a balanced and sustainable manner.

Environmental issues cannot be addressed with a partial approach but must be integrated, comprehensive, holistic, because environmental issues are a common problem. In this case, operational technical aspects, laws and regulations, institutions, financing and community participation are needed. Meanwhile, the public can provide suggestions, opinions, suggestions, objections, complaints, and/or submit information and/or reports on water pollution, maintain the cleanliness of the environment by protecting and caring for water sources. Preventive efforts are carried out through supervision, guidance and control carried out by the Regency/City Environmental Service, so that components are needed to build community legal empowerment, legal

awareness and legal compliance among community members. In this case, the government is expected to increase supervision of waste water disposal; improving water quality monitoring at water sources; carry out socialization of the culture of clean and healthy living to residents, carry out inventory and identification of water and water sources, as well as sources of water pollution. Therefore, regional regulations are needed as a means of further elaboration and explanation of national legislation and as a legal means.

Basically, every activity, whether official or unofficial, of course has an impact, in this case the exploitation of river waters or land dredging carried out by irresponsible people can be said to be illegal, because the land dredged area is not intended for dredging land at will, apart from that, exploitation of land waters or land dredging certainly has a quite significant impact on the economy and income of fishermen and other communities. Apart from damaging the environment due to land dredging activities carried out. Utilization of natural resources both in the sea, on land and in the forests must be carried out professionally and rationally for the needs of the general public and their next generations as well as protecting the environmental ecosystem.

This research shows that government policies in managing natural resources in Indonesia face major challenges, especially in the fisheries, plantations and mining sectors. Government policies in managing natural resources must be carried out optimally, fairly, sustainably and environmentally friendly. In the fisheries sector, government policies must consider the principles of sustainability, setting pen quotas numbers, and protection of marine conservation areas. However, its implementation is often faced with complex regulatory challenges and resistance from parties.

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