



ENHANCEMENT OPERATION SYSTEM MODEL IN MANAGING LOCAL RESOURCES- BASED ENVIRONMENT TOWARDS SUSTAINABLE DEVELOPMENT

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ABSTRACT

This paper discussed at exploring an appropriate model in managing environment that may accommodate and optimize local resources, such as human resources and natural resources. This is important to create and maintain the sustainable development for all. In manifesting the sustainable development, this work found a new paradigm in sustainable development which is based on the local resources. In detail, it elaborates and discusses some core components of the model of sustainable development that includes: (i) ontology; (ii) epistemology; and (iii) axiology of sustainable development. The ontological element of sustainable development could be found in Pancasila, the principle five, that is social justice for all Indonesian constitution 1945, article 28 h that guarantee the healthy environment for all. While the epistemological level, this work will coherency all diametrical policies and norms or regulations that related to the situation, such as environmental law, investment law, mining law, agrarian law, forestry law, marine and coastal law, and so forth. All those elements should be embodied in the appropriate mechanism and operational model, that cover the implementation, control, evaluation, development and recovery stages. In the end, this work offers an appropriate model for creating local resources based-environmental management that guaranteeing the sustainable development for all

Keywords: Pancasila, Local Resources, Sustainable Development.

Cite this Article: Triono Eddy, Bhakti Alamsyah, Irma Fatmawati, Solly Aryza, Andysah Putera and Utama Siahaan, Enhancement Operation System Model in Managing Local Resources-Based Environment Towards Sustainable Development, International Journal of Civil Engineering and Technology, 9(10), 2018, pp. 1791–1801.

<http://www.iaeme.com/IJCIET/issues.asp?JType=IJCIET&VType=9&IType=10>

1. INTRODUCTION

This paper is aimed at creating the right model in the management and utilization of sustainable natural resources. Even to create a sustainable model of natural resource management and also focuses on optimizing local resources. This case is important given the use of local resources, both of human and natural in environmental management can ensure the sustainability of conservation and utilization of the environment [1]–[6]. The logical reason that can be put forward is that local people know in detail about the condition of the area and have both emotionally and physically related in the nature conservation in which they live and live [7].

The aim product of sustainable development and utilization of the environment based on local resources becomes the answer to the development process that has been done by the government with the only emphasis on growth [8]. It is as if the development is only intended for growth to growth. Amartya Sen believes that an event should be aimed at creating an environment (realm) that allows everyone to convert its potential to functional. In this context, everyone can only develop his potential if the government can remove the barriers that lock everybody's freedom in improving their capabilities [9]. This atmosphere or environment must be free from threats to the cessation of a sustainable life, for example in a socioeconomic environment based on autopoietic principles. In such a situation each component can make or produce itself what it needs [10]–[14].

To improve the capacity of communities to become more independent, the government and other stakeholders should ensure that local resources play a role in sustainable development to support social, economic needs [15]. The ability of the community in the utilization of environmental functions must be developed to preserve the environment as expected in the economic development effort utilizing the ecological function.

2. FINDING PARADIGM IN CREATING SUSTAINABLE DEVELOPMENT

A paradigm in the creation of sustainable development is a way of viewing community or community in managing their environment [16]. Constitutionally, the model for the development of this environment comes from Pancasila and the constitution which affirms the importance of Indonesian values, such as harmony, harmony, balance, harmony, independence, and sustainability. These values are the basis for the formulation of the concept of sustainable development, both on the level of ontology, epistemology, and axiological it [17]–[20].

The definition and principles of sustainability and environment development are still evolving due to the relatively young knowledge, problems, and challenges that are continually changing [14], [21]–[23]. The World Bank sees the environment (environment) as the natural and social conditions that surround humanity, including future generations. The discussion of the climate is unlikely to ignore the study of human behavior and circumstances. The river in Irian Jaya (Papua), although constantly changing its location and

shape but never poses a danger to the life around it. Conversely, many rivers in Java and Sumatra, including Borneo, become useless or even dangerous to human-caused life. Humans who need natural resources, their development is out of control and become very wasteful and excessive. Individual human actions as well as in groups, causing severe damage to the natural environment. The majority of Irian's indigenous peoples are highly dependent on the existence of Iron Wood as a supporter of culture, both home-made (limited) and statues necessary for the needs of traditional ceremonies. For thousands of years, Irian never had trouble getting the Iron Wood. But now Irian people are tough to get Iron Wood, because it has been logged by the immigrants, either through HPH or illegal loggers. Ironwood can only be recorded when it is over eighty years old [24].

To meet the standard of living, humans are very dependent on the supply of natural resources. Unfortunately again, the activity obtained need a life also produces waste in large quantities as well. Whereas for indigenous communities such as in Irian and Kalimantan, the fulfillment of the necessities of life taken from nature only to meet the daily needs to survive and almost without generating waste. So the relationship between humans and the natural environment that determines whether the natural state continues or not. Back to the example of indigenous peoples in Irian Jaya, a good relationship between humans and the natural surroundings has led to the development of population growth almost stable even without a family planning program. That's because the quality of nature and the environment is maintained very well. The Kamoro and Asmat tribes that clump together and live along the central coast of Irian Jaya, have never had any problems in getting food, building housing or meeting other necessities of life, including spiritual aspects. However, it changed after the entry of development and exploitation of natural resources.

Colby [25], delivered his speech about the paradigm of environmental management. He tried to distinguish between frontier economics and deep ecology approaches; from environmental protection and resource management to the principle of eco-development. Frontier economics is based on neo-classical economic tenets or Marxist financial systems that see that the economy will continue to grow and prosperity will follow it as a dominant imperative. In contrast, deep ecology is a reaction to frontier economics which follows the anti-growth model and sees the concomitant harmony as the prevailing necessary. AMDAL is understood not to protect the environment, but rather as an economic opportunity to approach the threshold that is almost allowed to be violated. Such environmental protection is only seen as an attempt to internalize the protection of nature and clean up the environment. From these two models of ecological approaches, the future needs to develop an environmental paradigm which on the one hand is responsible for the preservation of the environment and on the other side to keep the economy growing, stable and carried out with a broad and equitable distribution.

Problems of environmental management in the framework of urban development, acting as a guarantor for the development process can run efficiently and effectively. This discussion needs to start from the understanding of the development process. Development by method follows the idea, planning, and financing, design, implementation, operation and maintenance/improvement. The thing that is often overlooked but in many ways important is the destruction after the working period of the development results are completed. The task of a manager in ensuring that the process runs smoothly is to keep time and phase of the process sequence. In this case, the most important thing is to determine who should do what in each part of the process, for example, the idea must come from who and how.

The above when associated with environmental management and principled on sustainable development, it is certain that the public must be actively involved in the process

of formulating ideas and making decisions at every stage. It is more urgent if the next principle of regional autonomy to be implemented better. Private sector involvement takes on an essential role as described earlier. The way business is doing more is trying to externalize social and environmental issues because it is considered only to hinder or reduce the opportunity to achieve significant profits. The economic principle of doing business so far is with limited capital, can make substantial gains in a short time, bear the lowest risk possible, and manipulate politics to guarantee its work. This way has always resulted in enormous losses for other parties, especially local communities and the environment. The private sector should be involved because of limited public funding sources. The problem is how this business practice complies with the principles of sound environmental ethics.

The general aspects of urban development are essential to understanding environmental management substantially. Urban development should have to refer to the principle of sustainable development, but not in the context of regional autonomy. Here the urban development is concerned with some of the things below from the improvement of the settlement environment such as the KIP (since 1968) the development of integrated urban infrastructure (UIDP, since 1983) or now an urban development program (UDP), and the ADIPURA movement (since 1983) that has not been implemented since 1997 without any clear necessary explanation. These three city development programs by many parties (domestic and foreign) are regarded as unmatched management innovations. But from within the country itself, the pattern of city development management is still not given an equal priority. In fact, the world has urged the need for proper urban environmental management (UEM). When referring to three programs performed in an integrated way, it is the outsiders who must learn from us, not vice versa.

Table 1 Matriks between program and cycle development

Development Elements Sustained	Program environment		
	KIP	UDP	ADIPURA
Environmental quality	Improved**	Improved**	Improved**
Quality of Life	Improved***	Improved***	Improved***
The role of society	very high***	very high***	very high***
The Economic Value Is rising	improved**	improved**	improved**
Human Research Development	very high***	very high***	very high***

Notice : *** very well ; ** medium; * low

The above description shows that there is a relatively large principle equation between the three development programs as a form of management of urban development which, on the one hand, results in improved housing conditions and on the other hand, communities have increased capacity to manage development aspects related to their own lives and livelihoods. Of the three forms of the program, although all have a city scope and high sustainability, it turns out that urban development program such as Medan Urban Development Project (MUDP) regarding sustainability does not reach as high as KIP and ADIPURA. Regarding financing, SDP involves the least contribution from the community. This is different from KIP and ADIPURA which in Medan involves greater community contribution that can be provided by the government. This aspect by itself has a significant impact on the sustainability of the development program.

3. METHOD OF APPROPRIATE PROCEDURE OR OPERATIONAL STAGE IN CREATING AND MAINTAINING SUSTAINABLE DEVELOPMENT

The concept of sustainable development emerged at the UN Conference on the Human Environment (UN Conference on the Human Environment) in 1972, also known as The Stockholm Conference. This concept was further supported by the United Nations Conference on Environment and Development in Rio de Janeiro in 1992 that brought together heads of state and government officials from all over the world along with representatives of UN agencies, international organizations and delegates others from various non-governmental organizations. The 179-nation conference clearly states that the national development of a country can no longer separate environmental management from socio-economic development as separate areas. In 1997, Indonesia developed Agenda 21-Indonesia which is a national strategy for sustainable development. The objective of Agenda 21-Indonesia is to realize growth. Amendment of the 1945 Constitution, contains provisions on the state's responsibility on the environment. Thus, the situation is contemporary, has become a constitutional responsibility in some countries of today's world.

Sustainable development as a human effort to improve the quality of life while trying not to go beyond the ecosystem of life support. Today, the issue of sustainable development has become an important issue that needs to be socialized in the community. Sustainable development (Emil Salim, 1990) aims to improve people's welfare to meet human needs and aspirations. Sustainable development is essentially aimed at finding the equitable distribution of intergenerational development in the present and future. According to KLH (1990) development, which is more economic-oriented, can be measured sustainability based on three criteria, such as:

1. No waste of the use of natural resources or depletion of natural resources;
2. No pollution and other environmental impacts;
3. Activities should be able to increase the available resources or replaceable resource.

In line with the above concept, Sutamihardja (2004), states that sustainable development goals include efforts to realize the occurrence. Firstly equitable distribution of intergeneration equity results meaning that the utilization of natural resources for the sake of growth needs to consider reasonable limits in an ecosystem or environmental systems control and directed to replaceable natural resources and emphasize as low as possible the exploitation of resources nature irreplaceable. Secondly, safeguarding or safeguarding the sustainability of existing natural resources and the environment and preventing ecosystem disturbances to ensure the quality of life remains good for future generations. Third, the utilization and management of natural resources solely to pursue economic growth for the sake of equitable distribution of sustainable natural resource utilization among ages. Fourth, maintaining the sustainable welfare of society both present and future (intertemporal). Fifth, keep the benefits of the development or management of natural resources and the environment that has the impact of long-term or sustainable benefits between generations. Sixth, maintain the quality or quality of human life intergeneration by their habitat.

From the economic side, there are at least three main reasons (factors) why economic development should be sustainable. The first factor involves a moral right. Generations now enjoy goods and services produced by natural resources and the environment, so it is morally necessary to pay attention to the availability of these natural resources for future generations. These moral obligations include not extracting natural remedies that can damage the

environment and can eliminate opportunities for future generations to enjoy similar services. The second factor is ecological reasons. Biodiversity, for example, has a very high environmental value. Therefore economic activity should not be directed to the events of the utilization of natural resources and the environment that can ultimately threaten ecological functions.

The third factor, which is the reason for the need to consider the aspect of sustainability is the economic reason. The ideas for the commercial side are still debated because it is not known whether economic activity has been or has not met the sustainability criteria, as we know, that the sustainable economic dimension itself is quite complicated, so that often this aspect of financial sustainability is limited only to the measurement of intergenerary welfare (intergeneration welfare maximization).

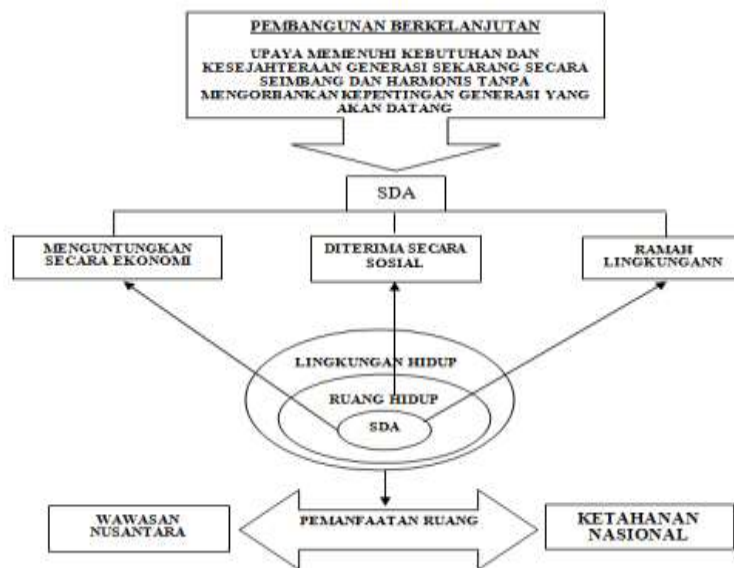


Figure 1 Operating of System do it.

3.1. Supporting Infrastructure

Generally, infrastructure development undertaken to support economic growth solely aimed at obtaining profit without regard to the sustainability of nature and the environment will bring negative impact not only to life but also to society. One of the adverse effects is the reduction of natural resources, air pollution caused by industrial infection and infrastructure development which is identical to the destruction of nature. However, it can be prevented by implementing an environmentally sound economic development program. Infrastructure has a strategic role in improving people's welfare, contributing to economic growth, and for improving the quality of the environment. Infrastructure such as clean water, sanitation, and drainage infrastructure will enhance the quality of the community environment. Similarly, the provision of well-residential settlements and well-maintained flood control and road infrastructure will improve the quality of the situation.

What facilities and infrastructure are needed in maintaining a sustainable environment? Prevention of sustainable environmental damage requires continuous maintenance in the full and essential use of the environment. The development of technology is one of the tools of environmental damage prevention. Sophisticated water pump machines and vehicles capable of penetrating natural-damaged fields such as forest fires. Technological advances are instrumental in helping to nurture the environment from excessive exploitation risks.

In the process of infrastructure development, should pay attention to the impact on the environment such as the construction of roads that change the function of land planting / absorption of water into concrete and the development of reservoirs that alter the natural river channel, the type of dumping open dumps and can pollute the groundwater and the surrounding environment. This must be sought to address the impact. Meanwhile, related to the phenomenon of climate change, infrastructure also plays a role in mitigation efforts and adaptation to the effects caused by climate change (climate change) to the environment such as floods, drought, landslides and so forth. Consideration of environmental factors has been regulated since the old as in article 33 paragraph 3 of the 1945 Constitution and Law 32 of 2009 on PPLH, and also followed up in RPJP 2005-2024, which mentioned that one of the missions of development is to create a beautiful and sustainable Indonesia, and infrastructure development will lead to the concept of improving services for improving environmental quality in the future.

3.2. Political Will Parliament

Article 13 Paragraph (1) of Law Number 32 the Year 2004 on Regional Autonomy states that "the obligatory matters which are the authority of the provincial government are the affairs in the provincial scale covering the control of the environment." This law will be the primary basis for assessing and adjusting all laws containing environmental requirements such as laws on water, mining and energy, forestry, conservation, spatial planning, land use, and so on. Disharmonization that occurs between the rules and regulations that happen is a sectoral law with local government law. Consequently, there are environmental conflicts, especially conflicts of central and regional authorities.

Environmental conflict is a conflict that occurs at the level of planning and environmental management. Various opinions emerged to understand these environmental conflicts, especially matters of regulation. Three scopes can explain the level of environmental disputes, which are management policy conflicts, conflicts over the authority structure and participation, discussions related to grass root level issues:

- 1) Management policy. Battle at this level is a conflict that is at the level of regulation and policy in environmental management. Many environmental disputes arise as a result of unclear and overlapping policies between the old and the new. Overlaps in this regulation resulted in poor environmental management. Reflecting on this, it is expected that both the executive and legislative branches at the central and regional levels to synergize the various policies and regulations relating to environmental management, so that policies at each level can be mutually supportive.
- 2) Authority and role. This conflict usually arises as a result of the attractiveness of functions between government at the central and regional levels. Many implementation systems result in the emergence of the drag role. This is supported along with the enactment of regional autonomy system. On the other hand, the local authorities feel they have a higher authority role than the central government. Meanwhile, on the other hand, the central government claims that these roles and powers are in their hands.
- 3) Issues at the grass root level. Decentralization has become a national decision that must be implemented by all parties.

Regarding the environment, many hopes are crippling on decentralization as it is expected to be the way for efforts to solve the environmental damage problem which is still ongoing. Through devolution, it is hoped that the awareness of the environment will increase, the

democratic principles will be more developed, the increasing community participation, the creation of equity and justice and regional development will pay more attention to the potential of geographical diversity. The concept of decentralization policy design in the field of environment that has not been followed by designing the division of tasks between the center and the region has caused various problems. The multiple issues that arise such as the level of community poverty and the poverty rate continue to increase. The unclear division of duties between the center and the region is the gap between the emergence of the drag of authority. So far there has been no agreement between the central government, provincial and district on the substance of material that will be submitted its jurisdiction. Environmental conflicts at this level usually occur in the issue of public rights, poverty, and dispensation in ecological management. On the other hand, the community feels to have an environment that is a hereditary right from their ancestors, while they have no legal evidence or legality. Conflicts arising at this level have structural impact.

4. ANALYSIS AND RESULT

Based on the above description can be explained that the management and utilization of local resources in Indonesia have not run maximally. Therefore, cooperation between the government, the public and investors or entrepreneurs is required. Each party must recognize the importance of environmental management and sustainable development that is environmentally sound. The urgent need for land for rapid growth should not be a justification for destroying the ecosystem and displacing local civilization. Executives and legislatures at both the central and regional levels should be able to make policies to increase participation and engage the community in every activity of management and utilization of natural resources. With the involvement of the city, the program of development and use of resources can run in harmony and not contrary to local wisdom. The paradigms of managing and building for the pursuit of personal gain should be transformed into mutual benefits including benefits to nature itself.

National environmental management establishes the inlet that is an indicator of the success of environmental management can be seen from the realization of sustainable development, which is defined as a conscious, planned effort, combine the environment and resources. It is aimed at ensuring the capabilities, welfare, and quality of life of present and future generations of generating. Thus, it should be emphasized that the environment should be treated as subjects, managed for sustainable living and not solely for growth. The situation as a living system will take place in balance if the quality in it continues to run consistently.

Article 28 H paragraph (1), Article 33 paragraph (3) of the 1945 Constitution and the Law on PPLH are basic guidelines for the government in managing the environment and running the development program. In running the program, the government must guarantee the fulfillment of the right of everyone to get a tasty and healthy environment. The management of natural resources concerning the livelihood of the broader community shall be administered by the state and shall be used for the benefit of the people, not controlled and for a handful of certain parties to obtain profit only by ignoring environmental sustainability. The primary targets to be achieved from environmental management and sustainable development are not only the pursuit of economic growth alone but also for public benefit and welfare.

In the framework of enforcement of criminal law in the field of environment, the government should be proactive to enforce the rule of law especially the local regulations related to the protection and management of the living environment. It can be through the application of criminal sanctions for any violations committed by individuals or

groups/corporations. Existing criminal penalties in both the Law of the PPLH and the local regulation should be able to give deterrent effect to every perpetrator of environmental destruction, in this case, a synergy between the local government and the relevant law enforcement apparatus is required. The supremacy of law must be upheld by giving rewards and punishment expressly to encourage law enforcement officers to run as well as possible.

Enforcement of environmental law can be preventive. Preventive means that active oversight by the government is carried out in compliance with the rules without a direct incident concerning a concrete event that raises allegations that the law has been violated. Instruments for preventive law enforcement are counseling, monitoring and use of supervisory powers. Thus the primary law enforcement is the officials/apparatus of local government that has the authority to prevent the occurrence of environmental pollution.

5. CONCLUSION

Utilization of local resources can ensure the active participation of communities in restoring sustainable environmental sites. Efforts to provide a sustainable environment can be realized through the design of ecological utilization policies based on the utilization of local resources. The product of the system may be a Regional Regulation established by simultaneously containing the principles.

1. Responsibility
2. Precipitation
3. Transformation
4. Prudence

The nature of responsibility in the management and preservation of environmental functions is to encourage the emergence of public legal awareness on a voluntary basis, to strengthen the commitment of reforms to realize good governance in line with the strengthening of civil society, and to support efforts to bring prosperity to the people in the framework of Indonesia as a welfare state. In carrying out its primary duties and functions obtained either using meaning, delegation or mandate, the government may be required to provide accountability both administratively and civilly as a. Liability if administrative

1. Making decisions contrary to laws and regulations
2. Abuse of authority; thing food, building
3. Act arbitrarily
4. Opposite to the principles of good governance

Civic responsibility is based on an offensive act by the authorities (onrechmatige overheidsdaad or unlawful acts of the government) as provided for in Article 1365 of the Civil Code. The settlement of this civil action can be done through litigation and non-litigation channels. In this case, it should be distinguished from dispute resolution efforts by environmental movement to obtain compensation for the victims of pollution or environmental damage due to unlawful acts that are individual. The civil suit referred to here is directed to the authorities if the means of enforcement of the administrative environment are inadequate. In short, government accountability is more emphasized on the aspects of civil and administrative, while for criminal responsibility is noted to personal acts by officials concerned, such as corruption, fraud, embezzlement, theft and other crimes by criminal provisions

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