The synergy model of village development based on environmental education (biotic approach) in Indonesia perspective of Law Number 6 of 2014

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Abstract. This research is driven from the ineffectiveness of village empowerment in the North Coast of Central Java (Pemalang, Tegal Regency, Tegal City, Pekalongan, and Batang), especially in environmental issues. In fact, the environment is an important part of village development and has the most important contribution to a prosperous independent community according to Law No. 6 of 2014 concerning Villages (Village Law). Environmental development (biotic and abiotic) has a very significant role, and humans as one of the biotic components place a strategic position in the development of the environment in the village. This study aims to produce a synergistic model that combines legal instruments, implementation, and environmental education in rural development. Chamblis and Seidman's theories (about Law and Society) are used in this study and this study emphasizes that: (1) laws and regulations should be used to achieve social welfare and justice, including in environmental terms, but in fact this is not maximally done, (2) village development as a mandate of the Village Law on the North Coast has not been oriented towards environmental development, so that the use of village funds is ineffective, and (3) the synergy model of village development emphasizes progressive legal principles as one of the tools to encourage law enforcement which is more effective.

1. Introduction

Natural resource scarcity and environmental degradation have been claimed as one of the main elements for conflict and violence [1]. In fact, sustainable management of natural resources has also been identified as a socio-cultural problem and hence is directly related to community livelihood assets [2-4]. Whereas, various legal instruments relating to the environment have been adopted and applied in Indonesia, including in the environmental education itself. Although environmental education has drawn criticism in many countries, the path of education still recognized as an alternative choice in strengthening people’s understanding of the importance of the environment [5-8].

Ways of thinking and human behaviour are also the cause of environmental degradation and damage. Views of anthropocentrism and ecocentrism in the environment have a significant influence,
including the negative impacts caused [9-10]. Some previous research results even underline that the role and mindset of humans—which are also related to local culture and wisdom—are very important and have a significant influence on environmental sustainability and the high level of environmental education and disaster mitigation [11-14].

Shahram, et al. emphasize that education is considered as a way to transfer culture, ethics, religion and heritage and all human societies, as well as environmental education which is directly related to human behaviour patterns towards environment [15]. Education itself, in many references and references, has the aim of developing human thought, creation, self-awareness, freedom of thought, and development in society. In fact, education plays an important role in motivating people. Cases of environmental damage that occur, especially in rural communities, are caused by a lack of community understanding of the concept of sustainable environment itself [14,16]. In addition, the low sanctions also result in people being encouraged to carry out various activities that have a direct impact on the environment. In fact, the inability of the community in managing waste and waste, for example, is also a factor in the amount of environmental damage in the village [17].

On the other hand, the environment is an important part of village development, because environmental conditions can encourage various village potentials. This means that the environment has contributed to the creation of a prosperous independent society (Law No. 6 of 2014, hereinafter as the Indonesian Village Law). The fact is that the environment has not been optimally empowered in supporting village development. This results in an independent, prosperous village that is not optimal. This condition is exacerbated by social behaviour and interaction that does not support the implementation of village development [18-20].

Data from previous studies in five districts of the North Coast of Central Java (Pemalang, Tegal Regency, Tegal City, Pekalongan City, and Batang) show that the environment contributes to the realization of village development, and even empirically the environment is a pillar of village development implementation. For example, in the construction of drainage, child-friendly villages, village-owned enterprises, tourism villages, transportation infrastructure and even the optimization of community business potential. However, sociologically the level of community exclusion on the environment is still low, as evidenced by the many activities that have an impact on environmental damage, which in turn has led to village development being ineffective and inefficient [18-19,21-22]. That is why the village education synergy model is based on an environmental education perspective based on the Indonesian Village Law.

2. Methods

This research is a qualitative field research. This field research defines the social facts of village development and the implementation of environmental education to support village development based on the Village Law. This research was conducted in five different locations in Central Java in the North Coast region, namely Pemalang, Tegal Regency, Tegal City, Pekalongan City, and Batang. Analysis of the data in this study uses the Source Triangulation technique, where sources of information related to the research will be checked for credibility scale and will be compared with other sources.

3. Results and Discussion

Public awareness of the importance of the environment becomes very important, especially in the current threat of climate change. Awareness can be obtained through various experiences gained, including the process of education and environmental learning. The function of learning is to transfer values from people who carry out learning activities. Learning outcomes are expected to make better behaviour for someone, as well as environmental education in rural communities [23].

Sufficient understanding of the environment has a major impact on the sustainability of the environment itself [23-26]. This is as demonstrated in the five Coastal Area districts in Central Java, that environmental development also impacts land use. Land use issues, especially in villages, have a direct and significant impact on major cities in Indonesia. Land use problems have a direct impact on the environment, especially for village conditions. Many villages experience changes in land use and function, be it paddy fields, agriculture or other land in various regions in Indonesia. And ultimately,
this also has an impact on changes in livelihood patterns in the village itself, as well as in the North Coastal villages.

Conditions that are in line with what was stated by Krott that by using a broad environmental scope, it must be possible to ensure the use of a sustainable environment for the benefit of the common good [27]. Also, professional operations need to have a wider range of skills and expertise in available scientific and technical knowledge and communication skills to lead and carry out environmental conservation and management efforts that are sustainable [28].

Based on the results of research in five North Coast districts in Central Java (Pemalang, Tegal Regency, Tegal City, Pekalongan City and Batang), three problems were found, namely relating to (i) physical aspects of the environment, (ii) social aspects, and (iii) aspects the economy.

Furthermore, in the context of village development and environmental development and environmental responsibility, education which is recognized as a bridge to sustainability and its role has been praised as one of the solutions determined for environmental conservation since the 1972 World Conference in Stockholm [29, 30]. Over the past 30 years, the call for formal education and training has become stronger in changing people's mindsets about the environment and its problems. The Hawthorne and Alabaster Model (1999), shows that education, or Environmental Education (EE), is an instrument that contributes to changes in behaviour in society, which ultimately translates into environmental citizenship [31].

Some environmental problems found in five research locations in the North Coast region of Central Java, namely, first, the physical aspects of the environment, which are the root of the problem in the five research locations are: (1) the weak ability of the community to conduct natural resource utilization activities, (2) the community and regional government still feel that they do not yet have a variety of village potentials because so far the authority is in the Center, (3) the low level of community participation in environmental management. Second, social aspects: (1) too many community groups cause emergency boredom, (2) existing groups still do not have clear vision, mission, and goals, (3) religion is more dominant activity. Third, economic aspects, namely: (1) people's perspectives on the value of money as a social value not as an economic value, (2) the absence of private or government financial institutions that support a weak economic community, (3) the ability of the community to manage existing sources natural resources are still weak (4) the dominant role of intermediary traders in the marketing of agricultural products, livestock, home industries, etc., and (5) the partiality of local governments in the real sector is still weak.

All issues and developments in the five districts on the North Coast of Central Java emphasize that community participation in developing and maintaining a good environmental management system is important. Many studies also show that some of the programs offered by the Government do not run effectively. The government's bottom-up planning system as ineffective - less than 3% of the village proposals produced through the compulsory annual development planning process have ever received funding, and there is even no evidence that the government has provided incentives or rewards for communities that have managed well. Most surprisingly, there seems to be an inverse correlation between the existence of project-based organizations and the participation of the poor in the same activities. This means that it is not only the elites who capture development project organizations, but the presence of such organizations actively undermines and weakens organizations that are followed by poor villages [32, 33].

In the same context, according to the Village Law, this law provides a great opportunity for the realization of the environmental conservation agenda. Villages that have tended to suffer losses from exploitation of natural resources, both by the government and corporations, now have a great opportunity to resolve the acute problem. The village’s authority to regulate itself becomes the starting point for ecological rescue which has often plagued the village.

Some cases, for examples, many villages complained that all this time they were helpless in rejecting the presence of investors from manganese mining companies who entered their villages. Residents opposed the presence of these companies, but, because the company had pocketed permission from the supra-village party, the village finally could not refuse their presence. They understand very well that manganese mining waste endangers the health of residents and damages the environment. Village finally helpless [34].
Environmental issues, as told above, will be easier to resolve when the Village Law is fully implemented. There it was emphasized that the village has the authority to determine its own destiny, manage assets, including the village's natural wealth, which is utilized as much as possible for the welfare of citizens. Through village deliberations (Musyawarah Desa, or Musdes), villagers can refuse investment or exploitation of village assets that are considered detrimental (Article 55, Village Law).

At present, the challenge that needs to be answered is how the implementation of the Act is supported and synchronized with the subsequent derivative rules, specifically Government Regulation (PP) Number 43/2014 concerning Regulation of the Implementation of Village Law and PP Number 22 concerning Amendments to PP No 60/2014 regarding Funds Village. In the series of regulations that still contains many weaknesses. The derivative regulation is not as harmonious as the law. Articles relating to ecological wisdom have not been translated concretely by PP 43/2014. The revitalization of local wisdom to ensure the operation of an environmentally friendly and sustainable social life system is not clearly reflected in the PP which has drawn a lot of criticism. Such wisdom is often ignored by outsiders who exploit the abundance of village natural resources. Likewise other challenges, because the Village Law is relatively new, of course, not many regions have prepared themselves, including preparing derivative regulations at the local level [34].

An environmental education model with an abiotic approach based on the Village Law, one way to use the empowerment of the village community itself. Sutoro (2002) argues that empowerment is the process of developing, independence, self-empowerment and strengthening the bargaining position of the lower classes of society against suppressive forces in all fields and sectors of life. From this definition it can be understood that the main problem in community development is socioeconomic. The purpose of community development is to awaken the full participation of citizens who realize the ability and integration of the community to be able to build themselves [35].

The process of community development means a person’s ability to understand and control social and economic conditions and the environment that is very much needed in an effort to improve their welfare in society, in other words the empowerment process is any educational effort aimed at raising awareness and the desire to have knowledge, skills, and abilities which will eventually have the ability to improve and improve their welfare.

In the five regions (as mentioned earlier), community empowerment in relation to environmental management is still not optimal. This is evidenced by minimizing the activities of rural communities related to environmental management. In fact, there is no one village community organization that is concerned with environmental issues. Furthermore, derived from the Village Law and the Environmental Law, there should be a kind of Village Regulation relating to Environmental Management and Conservation. However, in five regions, this type of regulation does not yet exist. Thus, the need for further assistance related to this problem.

4. Conclusion
This research concludes that biotic in this case human influence has a significant influence on the formation of ecosystems and the environment, including environmental damage. Various environmental damage and changes in land use patterns, in various regions, especially in villages in five regions on the North Coast of Central Java, require an appropriate solution pattern. The existence of village laws can be used to optimize village-based environmental development, as well as strengthen environmental education for the village community and its surroundings. Optimizing village funds has an impact on developing village potential and taking root in environmental education.

Acknowledgments
Authors thankfully for support received from the Village Officials of Pemalang, Tegal Regency, Tegal City, Pekalongan City, and Batang. Also, for funding received from the Faculty of Law, Universitas Negeri Semarang, Ministry of Research, Technology and Higher Education of the Republic of Indonesia
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