

# Identification the Impact of Environment Around the Relationship in Supporting Student Learning at Faculty of Engineering Universitas Negeri Manado

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## ABSTRACT

The environment will influence various development processes. The intended development can be carried out from various aspects of studies including environmental studies. Environmental documents are the main requirement in development. The environmental document is compiled as a study in monitoring environmental quality both at activity sites and in areas around development, including in managing educational areas such as at the Faculty of Engineering, Manado State University. The development of an educational area at the faculty level certainly requires an identification study of environmental impacts. This research is an initial effort to identify environmental impacts in the educational area of the engineering faculty as a basis for preparing environmental documents, both AMDAL, UPL-UKL and SPPL. Identification is carried out starting from the pre-construction stage, the construction stage, and the operational stage, so that by identifying all impacts, management efforts can be immediately carried out to reduce the impact of damage that will occur. The focus of the research is on the educational area of the engineering faculty whether it has applied the principles of identifying environmental impacts in the development and activities carried out. The research method is descriptive qualitative, preceded by field observations of the types of activities at the Faculty of Engineering, Manado State University which are then described according to the stages of the identification of environmental impacts. The results of research around the Faculty of Engineering, Manado State University, there are main and supporting activities such as learning activities and supporting activities such as canteens where students gather. Furthermore, the results of the identification of environmental impacts in the pre-construction stage are related to public perception, the construction stage is the construction method and the operational stage is the impact on waste management. In general, it is necessary to carry out directions in future development so that in the operational stage the impact is managed with local wisdom and can be maintained and socialization and supervision is carried out so that implementation efforts can be maintained so that the management of the Faculty of Engineering, Manado State University can run optimally to support sustainable development with an environmental perspective in particular and North Sulawesi in general.

**Keywords:** *Identification, Environmental Impact, Faculty of Engineering, Manado State University.*

## 1. INTRODUCTION

Regional development education needs notice continuity environment and impact environment. To use keep going guard quality environment and minimizing damage environment. Now, current global conditions this along with along with the sloping increase in covid cases then development resonate included in the field education where activity education is back on track with implementing health protocols [1]. Campus development

and activities encouraged naturally with notice rule continuity environment [2]. As one of the highest foreign exchange earners, tourism needs to continue to be developed with new approaches because this is one of the leading sectors in the national economy which is currently growing quite rapidly [3].

Discussing about nature and the environment from students will always be interesting for a reason sometimes environment become part important from

education, especially regarding the creation and maintenance of the environment, which previously was only understood in a narrow scope, namely humans, nature and the environment, as if they were not included in the design plan. As a result, humans have arbitrarily drained the contents of nature without thinking about the preservation and safety of nature. Moment This development education must pay attention and give good contribution for environment. This also applies for development education in North Sulawesi Province particularly at Manado State University at Faculty of Engineering.

Implementation development is containing activities risk will happening change quality possible environment bother ecosystem and social. Because of that in implementation wise development must increase something principal outlook environment as means for reach continuity and being guarantee for generation now and that will be come. Government The Republic of Indonesia has governing law environment live. Along with the presence of Law Number 11 of 2020 concerns namely Undang-Undang Cipta Kerja so its derivatives is on drafting document environment [4]. Derivative concerns rule This mandated in Governing Law (Peraturan Pemerintah) Number 22 year of 2022 concerns maintenance protection and management environment [5]. In order development directed and not damage environment so need obedience in tourist area development the in accordance with regulations and paying attention to the licensing [6].

The regulation stipulates that every activity plan that is expected to have a significant impact on the environment must be accompanied by an environmental document [7] including in development facility education University level in it there is faculties , departments and study programs. Development activities facility education especially in the faculty area need approach insightful development environment. Development activities at the pre-construction, construction and post-construction stages are expected to have an impact on the environment, if not managed with environmental quality standards. This is also in line with the Enactment of Mining Business Licensing Process Regulations Through the Risk-Based Online Single Submission System according to Government Regulation Number 5 of 2021 [8].

In implementation Effort Management Environment and Effort Monitoring Environment needed something possible design to use as guidelines in implementation [9]. Draft this meant to be deep implementation of UKL and UPL will directed and clear so that implementation of UKL and UPL will effective and efficient. For That need drafting UKL and UPL reference as room scope study analysis about impact environment that life will be done. Activity drafting document environment ( Amdal , UKL and UPL and SPPL) [10]. The more important

about that because aspirations, views and attitudes public local in a manner official get place for accommodated. identify plan activity development to be raises impact important to environment. Objective from Compose documents environment is identify hue environment to be caught impact by existence activities to be done.

Document environment is condition main in development including development campus. Document environment arranged as study in escort quality environment good on location activity as well as in the surrounding area development. Regional development tour naturally must study identification impact environment. Impact identification environment in tourist areas around faculty Manado State University technician made base as base drafting document environment [11]. Meaning of architecture sustainable is that educational area \_ No only developed No only in a manner sociological nor economical but also ecological [12]. Concept design This is to maintain natural resources to last longer, which is associated with the age of the vital potential of natural resources and human ecological environment, such as agricultural, industrial, forestry systems and using materials / materials that prioritize environmental quality, economic vitality and social benefits through building design, building operations and maintenance [13].

## 2. METHOD

This research is an initial attempt to identify the impact environment in the area faculty Manado State University engineering as base drafting document environment both AMDAL, UPL-UKL and SPPL. Identify environmental impacts by preparing documents environment Environmental Management Efforts and Environmental Monitoring Efforts. Identification done starting from the pre-construction, construction, and post-construction stages, so that by identifying all impacts, management efforts can be immediately carried out to reduce the impacts that occur. To find out the effectiveness of environmental impact management, monitoring can be carried out by authorized parties, such as the initiator and related parties. The focus is on the development of tourist areas in an integrated and sustainable manner, which means paying attention to social, economic and environmental conditions. The research method is descriptive qualitative preceded by field observations activity education which is in the Faculty of Engineering, Manado State University then to be described accordingly stage identification impact environment. The most recent data related to activities and tourism were obtained through field observations and in-depth interviews with several informants. Interviews were conducted using the snowball sampling technique.

### 3. ANALYSIS

The aim of this research is to identify the impact environment in the management of educational areas level faculty specifically faculty technique as base drafting document environment. Preparation document environment need notice condition social, economic and environmental at the location development moment activity pre construction – construction and operation. Development approach sustainability of pandemic conditions seen from three main sides, namely social, economic and environmental in order to realize sustainable tourism governance. The research was carried out on site Faculty of Engineering, Manado State University, Tondano, Minahasa Regency, North Sulawesi Province which also has one of the largest lakes in Indonesia. The observation results are then structured in the form of a model and then examined using a drafting approach document environment. The time of conducting the research was in October – December 2022.

In order to strengthen the observations, the researchers also conducted interviews with selected stakeholders to obtain input on impacts development at the research location. Initially, the researcher met the initial informant, namely the individual he met for the first time because he was considered to be a 'door opener' in the data collection process. Furthermore, the researcher met several key informants based on the references given by the base informant. Key informants are certain individuals who are considered to have mastered the problems to be studied and have sufficient expertise and insight regarding preparation document environment through design effort management and monitoring to impact environment that occurs.

#### 3.1. Identification Source Impact Environment

Identification to type impact that will arise, intended for study possibility exists change environment as consequence exists activity project construction, fine activity on stage pre construction, stage construction, as well stage post construction. Identification to type the resulting impact as consequence from exists development area, is presented as following:

##### 3.1.1. Stage Pra-Construction

Source Impact is Survey and Licensing, Arrangement Land and then Kind Impact is Anxiety user facilities. Magnitude Impact is Condition like This show quality environment down, so will give, magnitude impact negative, Disappearance ownership land agriculture will impact on the decline quality environment, and will give magnitude impact negative. Description: User Facility feel restless and worried change make a loss liberation land No in accordance with the expected, meaning results change to lose No can bought land on- site farming others, part of society will

give ownership land agriculture to be quick changed become area inundation to be changed become place tour.

##### 3.1.2. Stage Construction

Source Impact is Air Quality, Improvement Traffic Density, Damage roads, decline in public health, decline Surface Water Quality, Improvement Noise. Kind Impact is Magnitude change quality environment seen from chance work and opportunities try become more fix, decline income of the farmers, because No all farmer can with easy switch profession, Will happen enhancement emission of exhaust gases and dust from vehicle transportation of materials and equipment as well as dust the streets passed, Level service road become reduced, Damage the road traversed by the vehicle transportation of materials and equipment weight, infection channel breathing consequence dust happened erosion surface in season rain, Sound noisy from vehicle heavy on the distance not enough than 20 m enough annoying. Magnitude Impact is chance work and try will impact on improvement quality environment, so will give magnitude impact positive, Condition This impact on the decline quality environment become medium, up to will give magnitude impact negative.

##### 3.1.3. Stage operational

Source Impact is Enhancement Waste, Operationalization Activities. Kind Impact is Maintenance building in a manner periodically, created comfort, serenity and satisfaction user. Magnitude Impact is Impact prevention sedimentation consequence activity operation and maintenance area tour as well as facility supporting give impact big positive. Description Impact activity operational facility main as well as facility supporting give impact big positive \_ to enhancement activity user.

#### 3.2. The Analysis Student Perception Concerning Insightful Development Environment in the Faculty of Engineering, Manado State University

Studies students Environmental Perceptions at faculty engineering requires the support of social order in the form of policy implementation including environmentally friendly policies. Social order can be encouraged through the role of education through the process of planning, organizing and implementing materials that contain environmentally friendly concepts [14, p. 63]. There are at least three forms that underlie individual support for environmental problems [15, p. 44]. The dimensions of environmental assessment through measuring the ecocentric, anthropocentric and apathetic attitudes are used in order to measure perceptions of the environment, namely:

1. Ecocentric is a view that reveals that the natural environment deserves protection because of the intrinsic values it contains.
2. Anthropocentric is a view that reveals the natural environment as a resource that can be utilized for the benefit of humans themselves.
3. Apathy is indifference to the natural environment as an important resource.

In order to find out this relationship, each selected respondent according to the method described was given a question item on their understanding of the need for election administrators to develop an environmentally friendly educational concept.

**Table 1.** Understanding of Resource Persons on Environmental Development.

Variable	Amount	%
Ecocentric / Caring	20	77 %
Anthocentric/Caring Enough	6	23 %
Apathy/Indifference	-	0 %
Amount	<b>26</b>	<b>100 %</b>

Source: Research Result 2022

Individuals who are oriented towards ecocentric views who see the importance of caring for the environment and carrying out environmentally friendly activities in this study are then counted and compared with anthropocentric and apathetic choices. The table above shows that election administrators have an eccentric attitude, namely an attitude that views that protection of the natural environment is carried out for the benefit of the environment itself and every human being should make saving the environment a priority. Ecocentrism is a movement whose value base brings radical changes to nature [16]. From the data above, it can be concluded that architecture study program students have an ecocentric view. This view implies that in making architectural designs, protection due to intrinsic environmental values should be raised.

After the results of perceptions and comparisons with attitudes, researchers make interpretations regarding environmentally friendly. Environmentally friendly as a form of attitude that is collaborated with perceptions and attitudes about an object; attitudes are based on values with vertical and horizontal structures and general to specific [17]. An environmentally friendly attitude is also interpreted as a desire to tend to behaviour that is consciously carried out to reduce the impact that is being carried out on the environment [18]. Environmental values are identified through a person's perception of environmental problems which are described in several questions that raise answers to how much the perceived impact can affect the values they understand about the environment. Some explanations for environmentally friendly attitudes are not as an emotional aspect but as a cognitive assessment of the beliefs and values of environmental preservation.

When the questionnaire was administered to selected students to find out their perceptions of environmentally friendly concepts, the results showed that most understood the environmentally friendly concept, but were not followed up by delivering socialization material on environmentally friendly concepts in their activities as election organizers. This condition is interesting to discuss in this research because the first finding is that election organizers who are eccentric should show support for environmental issues in their attitude of presenting material but have not included friendly material in their outreach.

## 4. CONCLUSION

The conclusions of this study concerning the three Based on the results of data analysis, the results of the study can be concluded that the relationship between environmental studies in education at the Faculty of Engineering, Manado State University. Duties and responsibilities that protect the environment also need to be taught to students and included in lecture work. Educational institutions need to anticipate the current environmental crisis by teaching students and inviting students to be directly involved in preserving an environment that has been damaged by humans. The duties and responsibilities that schools must carry out are to address the current environmental crisis by teaching students to maintain cleanliness in the school environment and not damage the existing environment. Suggestions related to environmental studies, namely that programs related to environmental studies should be continuously implemented, for example in the form of trainings with the aim of increasing knowledge, abilities, skills and at the same time increasing pro-environmental behaviour for students, as well as the need for environmental activist assistance for resource persons so that the material can display educational designs The environmental studies are carried out prioritizing environmental studies.

Identification impact environment in the area education has an important value in development activities sustainable. Therefore, identification impact environment must capably support draft sustainable, beautiful and beautiful development must be maintained. So that these conditions can be sustainable and contribute to quality improvement education especially during the current pandemic, the implementation of mechanisms impact environment as criteria drafting document environment. With exists analysis about impact environment will help know earlier and looking solution to problem to be arise in development something project, so that later No harm lots party. With thereby development still walk without raises impacts that are not wanted. As for suggestions for development a head, First Should every activity to be planned like project construction good scale big nor scale small should done

UKL and UPL studies for analyse impact and look for \_ solution prevention If found negative impacts; Second UKL and UPL studies are a must done in accordance reference regulation legislation that has set; third for can know impact that occurred from development project This suggested UKL and UPL studies were conducted continuously.

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