Environmental impact assessment as a regulation and equator principles as an initiative

M A Siregar1,2 and S W Utomo2
1Program Studi Ilmu Lingkungan, Sekolah Ilmu Lingkungan, Universitas Indonesia
2Program Studi Ilmu Kesehatan, Fakultas Kesehatan Masyarakat, Universitas Indonesia

E-mail: arif.siregar@gmail.com

Abstract. The commitment to implementing environmental management is a key to reach the sustainable environmental in a development country specially in Indonesia. AMDAL (Indonesian term for Environmental Impact Assessment, EIA) as a regulation and Environmental Impact Assessment in Equator Principles (EP) as global initiative is a baseline in mapping the social, economic and environment figure at pre-construction, construction and operation phase. Social factors are the main thing to be secured which should be controlled based on existing guidelines, because it is relatively risky become a fatality. The paper aims to analyse the descriptive and comparative how are AMDAL and EP handling the environmental within the framework of partnership to achieve the ultimate goals that arise due to environmental factors, especially in monitoring and evaluation on development activities. The researcher finds there were gap in public consultation process between AMDAL and EP implementation. The results are expected to highlight the importance of adopting a comprehensive framework for a decision that places a detailed analysis of related the monitoring and evaluation within the broader legal and initiative context. Finally, it is expected that the condition of environmental sustainability reflected in Indonesia, based on at least both AMDAL and EP.

Keywords: AMDAL, Equator Principle, Social, Monitoring and evaluation

1. Introduction
The Environmental Social Impact Assessment (ESIA) used globally as an instrument, International Finance Corporation (IFC) is one of World Bank group specially serves in financing of private sector. Officially, environmental protection and environmental management is carried out by each company or activity to implement the Equator Principal (EP). EP is the process of assessing or forecasting the environmental and social potential that is issued, followed by mitigation actions that are more specific to development activities, especially in relation to appropriate environmental, state, or provincial policy legislation [1].

Managing environmental and social activities in several activities using ESIA to ensure that carrying out development or related activities carried out by the company can support, discuss and take appropriate mitigation measures to minimize these impacts. In Indonesia, ESIA is implemented through the regulation of Analisis Mengenai Dampak Lingkungan (AMDAL) which stands as Indonesian term for Environmental Impact Assessment (EIA).

Researches regarding environmental management and community consultations that have followed global agreements and arrangements in Indonesia over the past few years in Indonesia, including scientific
documents, legal documents and environmental management tools [2]; The AMDAL Reform Process in Indonesia, enhances the role of the community [3]; growth analysis of company performance on corporate financial performance [4], and the use of SMS (short message service) are also considered as effective ways and media that increase of paper consumption [5].

In this research, the author wants to know the involvement of two AMDAL and EP documents in public consultation especially on the process of land acquisition in accordance with Minister of Environment Regulation No. 17 of 2012 concerning Guidelines for Public Relations in the Process of Environmental Impact Analysis and Environmental Permits. The objective of this study is comparing the regulation and initiative tools in land acquisition process.

2. Methodology
This paper used in this research is quantitative descriptive method. Quantitative descriptive research is a conscious and systematic effort to provide answers to a problem or get more in-depth and broad information about a phenomenon by using research stages with a quantitative approach [6]. Through research, humans can use the results, in general the data that has been obtained from research can be used to understand, solve and anticipate the problem [7]. The sample and population of this research are 5 stakeholders which are relevant with AMDAL and ESIA managements (table 1 and 2).

| Stakeholder | Description | Sample & Population |
|-------------|-------------|---------------------|
| Stakeholder in relevant with AMDAL and ESIA management | 1. Knowing the general conditions for managing AMDAL and EP. 2. Knowing the variants of AMDAL and EP 3. Knowing the conditions for land acquisition in the Batang Toru Hydroelectric Power Plant. 4. Knowing the social impact of land acquisition for the Batang Toru Hydroelectric Power Plant. 5. Knowing the economic impact of land acquisition in Batang Toru. | 5 |

Table 1. Summary of population and research sample.

| QR | Purpose |
|----|---------|
| 1. | Knowing the general conditions for managing AMDAL and ESIA. |
| 2. | Knowing the variants of AMDAL and ESIA |
| 3. | Which is the best, AMDAL or EP. |
| 1. | Knowing the procedures for conducting public consultations in the framework of preparing AMDAL and EP to realize sustainable environmental management. |
| 2. | Analyzing the implementation of public consultations in the AMDAL and ESIA as a representative of EP |

Table 2. Summary of population and research sample.

Primary data obtained from interviews with secondary data respondents were analyzed as follows:

a. Administration and Substance of AMDAL and EP
   At this stage an AMDAL is explained which refers to Law No. 32 of 2009 concerning Environmental Protection and Management, Regulation of the Minister of Environment No. 17 of 2012 concerning Guidelines for Community Participation in the Environmental Impact Analysis Process, Minister of Environment No. 16 of 2012 concerning the preparation of Environmental documents, Government Regulation No. 27 of 2012 concerning Environmental Permits. EP which refers to IFC Performance Standards, 2012.

b. Analysis of the Public Consultation Process in AMDAL and EP
From the results of the procedure analysis and substance, the study deepened the gap in public consultation on AMDAL and the ESIA using the analysis of the Minister of Environment Regulation No. 17 of 2012 concerning Guidelines for Community Engagement in the Environmental Impact Analysis Process. IFC PS-1 is used on the ESIA side.

c. Assessment of Evaluation and Monitoring of land acquisition processes carried out based on AMDAL and EP on the Batang Toru Hydroelectric Power Plant.

d. Water quality evaluating refer to regulation Government of Indonesia No. 82 Year 2001 regarding Water Quality Management and Water Pollution Monitoring.

From the results of the analysis of procedures and substance on the AMDAL and ESIA, the study was focused on the gap in public consultation on the process of land acquisition for the development of the Batang Toru PLAT using analysis in Law No. 2 of 2012 concerning Land Acquisition for Public Interest Development and Presidential Regulation No. 99 of 2014 concerning the Second Amendment to Presidential Regulation Number 71 of 2012 concerning the Implementation of Land Acquisitions for Development Public Interest. IFC PS-5 is used on the ESIA side.

3. Result and discussion

As mentioned earlier, this literature review is limited to journals which are published in 2010 through 2018. The time span is to see if research on the feature independence assumption on the Naïve Bayes method is still relevant. In figure 1 it can be seen that the trend of research from 2010 to 2016 has increased, so it can be concluded that research on the assumption of attribute independence on the Naïve Bayes method is still very relevant to date.’

![Figure 1. Public consultation vs land acquisition](image-url)

The ESIA refers to the IFC-5 Performance Standards on Land Procurement and Voluntary Resettlement, recognizing that land acquisition and restrictions on land use associated with development activities can adversely affect communities and landowners and users [5]. The requirements of IFC PS-5 are expected to be an essential concern for development activities in land acquisition. The objectives of IFC PS 5 regarding land acquisition and voluntary resettlement are as follows: a.) Avoid, when avoidance is not possible, minimize displacement with alternative designs; b.) Avoid forced evictions; c.) Anticipating and avoiding, or if avoidance is not possible, minimizes adverse social and economic impacts of land acquisition or restrictions on land use by providing compensation for loss of assets at replacement costs; d.) ensuring that resettlement activities are carried out with information, consultation, and appropriate participation from
those affected; e.) Improve, or restore, the livelihoods and living standards of refugees; f.) Improving living conditions among refugees physically by providing adequate housing with guaranteed ownership in resettlement locations.

In PS-5, physical and/or economic movements resulting from land-related transactions are defined as the result of the following transactions: a.) Land rights or land use rights obtained through expropriation or other compulsory procedures in accordance with the legal system of the host country; b.) Land rights or land use rights obtained through settlements negotiated with property owners or who have legal rights for the land that if failed to reach a settlement will result in expropriation or other mandatory procedures; c.) A development situation where unintentional restrictions on land use and access to natural resources cause a community or group within a community to lose access to the use of resources where they have traditional or recognizable use rights; d.) Certain development situations that require the expulsion of people occupying land without formal, traditional or recognizable use rights; or e.) Restrictions on access to land or use of other resources including communal facilities and natural resources such as marine and water resources, timber and non-timber forest products, freshwater, medicinal plants, hunting and gathering places, and grazing and agricultural areas.

The PS-5 states that where the development impacts on land, assets, or access to assets are very detrimental at each stage of development, IFC suggests implementing this standard. In developing the development of the Batang Toru Hydroelectric Power Plant (BTHPP), no physical displacement is planned but the process of land acquisition is likely to result in economic displacement (loss of access to resources needed to generate income or as a means of livelihood) of several individuals, households or communities, including those considered vulnerable status. Sarulla Geothermal Power Plant, locate upstream the Batang Toru has a similar process in land acquisition.

The ESIA requires avoidance of the transfer of economic activities or to minimize the impact on individuals or communities through appropriate measures such as fair compensation and improving livelihoods and living conditions.

IFC PS-5 applies the following objectives:

1. Design of Development: Reconsider the design of alternative development activities and plans / locations to minimize the impact of activities.
2. Compensation Standards: Offer full replacement costs and other assistance to all people and communities who are displaced, whether legally entitled or not.
3. Conducting Consultation: Involving all affected people in consultation and decision making, using Fair, Priority, and informed Consultation methods before, during, and after the completion of the development process.
4. Implementing the Grievance Mechanism: Implement a complaints mechanism that is freely available to all people without threats or intimidation that includes effective follow-up and monitoring mechanisms.
5. Resettlement Planning and Implementation: Ensure activities to obtain reliable data about people who qualify for compensation, resettlement and other assistance to assist in equitable resettlement planning.
6. Land Census: Collect comprehensive and strong socio-economic baseline data on all claimants and the surrounding community.
7. Preparation of the Compensation Framework and / or the Resettlement Framework: Prepare a fair and transparent Compensation and / or Resettlement Framework, and ensure that it is implemented and monitored effectively.

In Batang Toru Hydro Power, public consultations and socialization have been conducted more than 30 times since the period of 2012 to 2015 with increasing intensity in 2015 in line with the increasing intensity of land acquisition in current time.
4. Conclusion

Based on the results and discussion of the gaps in the public consultation process on AMDAL and EP, the conclusions are as follows:

1. The public consultation process on AMDAL and ESIA differs significantly.
2. Implementation of public consultations on the AMDAL treats affected communities as objects, not specifically emphasizing the number of times public consultations are conducted. Public consultation on the EP was carried out specifically directly on the affected communities significantly.
3. AMDAL and ESIA as a representative of EP, were significantly different in principle, however, AMDAL and EP both were important as a tool to predict the environmental impact.

5. References

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