

Study on The Quality of Environmental Impact Assessment Documents Evaluated by EIA Assessment Commission of South Sumatra Province for Preventing Environmental Degradation

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Article history

Received	Received in revised form	Accepted	Available online
22 July 2021	18 January 2022	14 February 2022	20 February 2022

Abstract: The quality Environmental Impact Assessment (EIA) document does not guarantee the effectiveness of EIA implementation, but it can be the primary basis in environmental management and monitoring. So it is essential to evaluate the quality of the EIA document. This research aims to evaluate the quality of the EIA document assessed by the South Sumatra Province EIA Assessment Commission and appraise the person's compliance in charge of the business and/or activity in implementing the EIA Document. The research method used is descriptive qualitative. The sample is taken using the total sampling technique (12 EIA documents assessed between 2018-2020 and already have an Environmental Feasibility). The result of the consistency test showed that 42% is perfect, 50 % is good, and 8% is terrible. All the EIA documents own an out standing necessity aspect. The results of the relevance test showed that 58% is excellent and 42% is good. Based on the EIA document test, there are 16.7% of implemented documents since 2019, and 8% since 2020, but they have not complied with the obligations fulfillment contained in the Environmental Permit.

Keywords: consistency, necessity, relevance, implementation, EIA

1. Introduction

EIA is an instrument playing an important role in maintaining environmentally sustainable development [1]. Many parties feel the EIA has not been fully capable of carrying out this role, even the EIA is considered very burdensome. EIA cannot be used as a determinant of environmental feasibility and disaster mitigation [2]. The various efforts in managing environmental impacts such in EIA requirement are not all carried out by the owner of the business or activity [3]. It is influenced by the quality of EIA document composed [4].

In many countries, EIA made as key component in environmental management efforts [5]. Research on the quality of EIA documents in several countries has also been carried out [6]. The quality of EIA documents in South Africa has decreased due to changes in various policies regarding EIA, while in the Netherlands, the quality of EIA documents is already quite good [7]. The assessment process of EIA document is done very strictly [8].

The different quality of EIA documents in different countries is caused by various factors, including policy change in EIA [9] and the quality of EIA compilers and assessors [10]. The EIA policy in Indonesia has undergone several changes. The change originate from Government Regulation Number 29 of 1986 about Environmental Impact Analysis, Government Regulation Number 51 of 1993 concern

about Environmental Impact Controlling Analysis, Government Regulation Number 27 of 1999 discuss about Environmental Impact Analysis, Government Regulation Number 27 of 2012 focus on Environmental Permits, Government Regulation Number 24 of 2018 state about Electronically Integrated Business Licensing Services and Government Regulation Number 22 of 2021 concern about Implementation of Environmental Protection and Management. Research performed by Catherina in 2003 state that evaluation process of EIA Documents have been done after implementation of regional autonomy and the EIA process authority was handled over the regions. It denotes investigation of EIA document (10 documents) did not meet the quality [11]. Then, the research conducted by Venita in 2015 indicated most of the EIA documents (13 out of 15 documents) in Bogor Regency and Bogor City were still in moderate quality.

The results of the Ministry of Environment and Forestry's evaluation towards 147 EIA documents in provinces and districts/cities throughout Indonesia in 2019 revealed some of the EIA documents was still in poor quality e.q. 74 documents (50,34%) while 73 documents (49,66%) are in good quality [12].

Province of South Sumatra is one of rich province in natural resources, but the internal development activities do not own a good environmental management planning. Such as, the activities induce

the forest becoming damage [13], illegal coal mining can cause victim. In 2020, there were some violation cases against laws and regulations about environmental protection and management, especially EIA. Furthermore, some activities and/or business have been proceeded, but they do not appropriate with EIA documents. It really concern with EIA documents quality used by business and/or activities and obedience of business and/or activities owner is in EIA implementation. The quality EIA document does not guarantee effectiveness of EIA implementation, but it can be the primary basis in environmental management and monitoring. It is also influenced by the initiator's commitment in undertaking environmental management as mandated in environmental documents [14]. Therefore, it is necessary for doing the quality evaluation of EIA documents in province of South Sumatra. Aims of this research is to evaluate the quality of EIA documents assessed by EIA assessment committee of South Sumatra Province, in aspects of consistency, necessity and relevance. Then, activities and/or business evaluation is in EIA documents implementation.

2. Materials and Methods

2.1. Materials

The tools and materials used in the research are EIA documents assessed by the South Sumatra Province EIA Assessment Commission between 2018-2020 and already obtain Environmental Eligibility Decree as much 12 documents, EIA regulations, consistency test forms, necessity, and the relevance of the EIA document.

2.2. Methods

2.2.1 Sample collection and preparation

Sampling employs census technique or *total sampling*. *Total sampling* is a sampling technique in which all population member are sampled [15]. In this research, The sample is all EIA Documents assessed by the South Sumatra Province EIA Assessment Commission between 2018-2020 and have received an Environmental Feasibility Decree, which is 12 documents.

Table 1 shows the EIA Documents assessed by the South Sumatra Province EIA Assessment Commission between 2018-2020.

Table 1. EIA Documents assessed by the South Sumatra Province EIA Assessment Commission between 2018-2020

No.	Activity	Year of Eligibility Decree Issuance	Environmental Permit Issuer
1.	Development of Special Economic Zones and Supporting Areas	2018	DPMPTSP

No.	Activity	Year of Eligibility Decree Issuance	Environmental Permit Issuer
2.	Construction of Coal Stockpile, Hauling Road, Special Terminal and Supporting Facilities	2018	DPMPTSP
3.	Coal Transport Road Construction	2018	DPMPTSP
4.	Sand Mining	2018	DPMPTSP
5.	Construction of a Special Coal Terminal	2018	DPMPTSP
6.	Used Oil and Dirty Oil Processing Industry Activities	2019	OSS institute
7.	Utilization of Timber Forest Products in Industrial Plantation Forests	2019	OSS institute
8.	Construction and Operation of Extra High Voltage Air Lines (SUTET)	2019	OSS institute
9.	Construction of 275 Kv Extra High Voltage Overhead Transmission	2020	OSS institute
10.	Industrial Estate Development	2020	OSS institute
11.	Construction and Operation of Special Railway Lines and Supporting Infrastructure	2020	OSS institute
12.	Highway construction	2020	DPMPTSP

DPMPTSP : The Office of Investment and One Stop Integrated Services

OSS : Online Single Submission

2.3 Experimental variable and analytical procedures

The EIA document selected as the sample will be tested using the test form that has been prepared. The test method refers to the assessment of the quality of the EIA document base on the Regulation of the State Minister of the Environment Number 08, 2013 concerning the Procedure for the Assessment and Examination of Environmental Documents and Issuance of Environmental Permits and Forestry Number P.26/MENLHK/SETJEN/KUM.1/7/2018 about Guidelines for Preparation and Assessment and Examination of Environmental Documents in the Implementation of Electronically Integrated Business Licensing Services. The consistency test includes the consistency between the significant hypothetical impact of the scoping results and the study method to be used; consistency between the significant hypothetical impacts (including the parameters studied) with the impact forecasting method, the initial environmental baseline, the estimated magnitude of the impact, the significant nature of the impact, a holistic evaluation as well as the environmental management and monitoring plan; and consistency of environmental impacts to be managed. The necessity test is intended to assess the aspects that must be included in an EIA document, namely the scoping process; significant impacts, estimates of the

magnitude of impacts and estimates of the significance of impacts; holistic evaluation includes determination of environmental feasibility; and impacts that are managed and monitored as well as the management and monitoring plans for those impacts. Relevance test is carried out to ensure conformity between the directives of environmental management efforts and the environmental impacts that arise; conformity between the direction of environmental monitoring efforts with environmental management efforts and environmental impacts that arise; conformity between forms of environmental management and forms of environmental monitoring with environmental impacts that arise; conformity between the location of management and the location of the impact; conformity between the management period and the time of the impact; and the appropriateness of institutions that carry out supervision and institutions that receive reports, with environmental impacts being managed and monitored.

2.4 Data Analysis

Data analysis of 12 documents was executed by weighting the document value scoring form after testing for consistency, necessity and relevance [16]. It aims to see the quality rating of all samples inspected. Value weighting applies the likert scale. Likert scale is a scale used to measure attitudes, opinions and perceptions of a person or group of people about social phenomena [15]. Value weighting in this research can be written in intervals from the lowest to the highest value, referring to documents verified as follows:

- 0 – 20 : worst quality;
- >20 – 40 : bad quality;
- > 40 – 60 : medium quality;
- > 60 – 80 : good quality; and
- > 80 – 100 : very good quality.

3. Results and Discussion

Referring the EIA test method in [17] and [18], the results of the consistency, necessity and relevance test of the 12 EIA Documents involve the quality test results of 6 EIA Documents whose environmental permits are issued by the Office of Investment and One Stop Integrated Services (DPMPTSP) of South Sumatra Province and 6 EIA documents that are outside the permit and issued by the Online Single Submission (OSS) agency. The following are the results and discussion of the three quality tests of the EIA Document that have been done.

3.1 EIA Document Consistency Test

The results of the consistency test on 12 EIA documents can be seen in Figure 1 below.

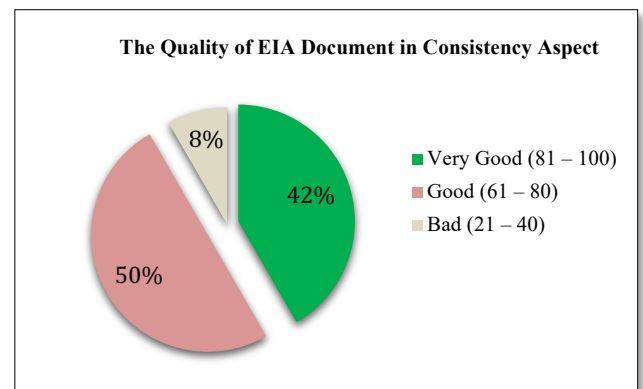


Figure 1. Quality Classification of EIA Documents in Consistency Aspect

Based on Figure 1, it can be seen that 5 documents (42%) are very good, 6 documents (50%) are good and 1 document (8%) is bad.

The EIA document with very good and good consistency is influenced by several factors, such as the EIA document compiler has guided the applicable laws and regulations, namely Regulation of the Minister of Environment Number 16, 2012 concerning Guidelines for Preparation of Environmental Documents and Regulation of the Minister of Environment and Forestry Number P.26/MENLHK/SETJEN/KUM.1/7/2018 about Guidelines for Preparation and Assessment and Examination of Environmental Documents in the Implementation of Electronically Integrated Business Licensing Services. Accuracy in assessment of EIA Document also affects the consistency aspect of the EIA Document. EIA documents with bad consistency aspects indicate that there is a low level of consistency between DPH Scoping Results on KA-ANDAL with study method, impact forecasting method, initial environmental baseline, estimated magnitude of impact, significant nature of impact, holistic evaluation, RKL and RPL. It is caused by ANDAL Document, RKL-RPL, with new DPHs that are not covered by the KA-ANDAL (Terms of References – Environmental Impact Analysis Report), while the DPHs (Hypothetical Significant Impact) that have been covered by the KA-ANDAL (Terms of References – Environmental Impact Analysis Report) are not all reviewed in the ANDAL Document, RKL-RPL. Based on the Regulation of the State Minister of the Environment Number 08, 2013 concerning Procedures for Assessment and Examination of Environmental Documents and Issuance of Environmental Permits and Regulations of the Minister of Environment and Forestry Number P.26/MENLHK/ SETJEN/KUM.1/7/2018 concerning Guidelines for Preparation and Assessment and Examination of Environmental Documents in the Implementation of Electronically Integrated Business Licensing Services, DPH Scoping Results on KA-ANDAL must be consistent with the study method, forecast method impact, initial environmental baseline,

estimated magnitude of impact, significance of impact, holistic evaluation, RKL and RPL. EIA document in bad consistency can be induced by the drafting team has not fully guided the relevant laws and regulations in the process. It is also influenced by inaccuracies of EIA document assessment.

3.3 EIA Document Necessity Test

Refer to [17] and [18], all criteria of necessity aspect must be fulfilled and the results can be seen in Figure 2 below.

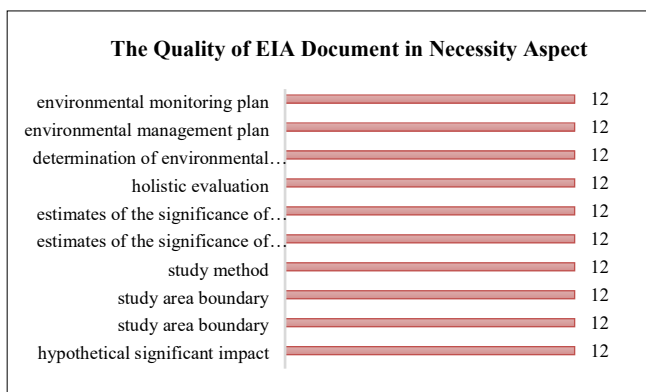


Figure 2. Classification of EIA Document Quality in Necessity Aspect

Based on Figure 2, it can be seen that all the EIA documents possess all the aspects that must be included in standard EIA Document, so that the 12 EIA documents obtain very good criteria in necessity aspects. Therefore, all EIA documents have referred to Minister of Environment Regulation Number 16, 2012 concerning Guidelines for Preparation of Environmental Documents and Regulation of the Minister of Environment and Forestry Number P.26/MENLHK/SETJEN/KUM.1/7/2018 concerning Guidelines for Preparation and Assessment and Examination of Environmental Documents in the Implementation of Services Electronically Integrated Business Licensing. Subsection EIA Documents, KA-ANDAL, already has significant hypothetical impacts, study area boundaries and study time limits as a result of the scoping process and equipped with study methods. ANDAL document also discuss about estimation of impact magnitude and significance, a holistic evaluation including the determination of environmental feasibility by being managed and monitored the impacts that are managed and monitored. The EIA document also describe the environmental impact management and monitoring plan as contained in the RKL-RPL Document.

3.4 EIA Document Relevance Test

The results of the relevance test can be seen in Figure 3 below.

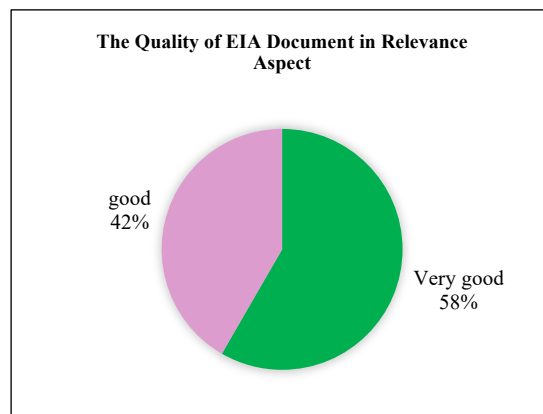


Figure 3. Classification of EIA Document Quality in Relevance Aspect

Figure 3 denotes classification of EIA Document Quality in Relevance Aspect. From figure above, it can be obtained 7 documents in very good ratings (58%) and other (5) documents in good ratings (42%). All those documents is assigned in very good and good ratings since all documents actually notice conformity between the directives of environmental management efforts and the resulting environmental impacts in ratings and drafting process, direction of environmental monitoring efforts with efforts to manage the environment and the environmental impacts that arise, forms of environmental management and forms of environmental monitoring with environmental impacts that arise, management locations and locations where impacts occur, management period with timing of impacts and the accuracy of institutions that carry out supervision and institutions that receive reports with managed and monitored environmental impacts. According to [14], This indicates that the EIA Document drafting and assessing team has understood the guidelines for the preparation and evaluation of the EIA Document, especially related to the relevance aspect.

3.5 EIA Document Implementation

The evaluation result of the implementation of the EIA Document can be seen in Figure 4 and Table 2 below.

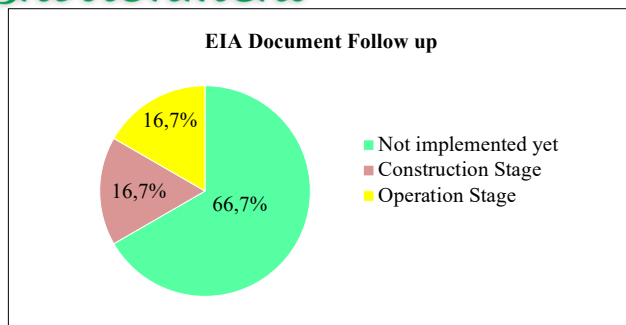


Figure 4. EIA Document Follow Up

Based on figure 4, 8 of 12 EIA documents (66,7%) have not been implemented, meanwhile 4 documents have been implemented which consist of 2 documents (16,7%) in operation stage and 2 documents (16,7%) in construction stage. Some EIA documents that have not been implemented due to several things, such as other permits should be required by activities initiator except environmental permit or environmental approval before activities, others study still required, constraints in land acquisition and limited costs in carrying out activities. EIA documents that have been implemented can be seen in Table 2 below.

Table 2. Implemented EIA document

No.	Activity	SKK L Issue Year	Year Start Activity	activity step	notification
1.	Development of Special Economic Zones and Supporting Areas	2018	2021	Construction Stage	Not required to submit RKL-RPL Report
2.	Construction of Coal Stockpile, Hauling Road, Special Terminal and Supporting Facilities	2018	2019	Operation stage	Required to submit RKL-RPL reports, but have not been submitted
3.	Coal Transport Road Construction	2018	2019	Operation stage	Required to submit RKL-RPL reports, but have not been submitted
4.	Highway construction	2020	2020	Construction stage	Required to submit RKL-RPL reports, but have not been submitted

Based on Table 2, it is known that the person in charge of the EIA Document that has been implemented in 2019 and 2020 has not submitted the RKL-RPL Report to the authorized department, such as the Environment and Land Office of South Sumatra Province. In Environmental Permit, the initiator of the activity has an obligation to submit a report on the implementation of the RKL-RPL every 6 months. In fact, the person in charge of the business and/or activity do not propose the RKL-RPL Implementation Report to the relevant agencies. This issue can be happened since no processing and monitoring of environmental is

taken relating to the impact of the activities been done. No submission of RKL-RPL report to authorized department, it means that person in charge of business and/or activity does not comply in obligation compliance which is in Environmental Permits.

4. Conclusion

Based on the quality evaluation of the EIA document assessed by the EIA Assessment Commission of South Sumatra Province between 2018-2020, it has three aspects i.e. consistency, necessity and relevance aspects. First aspect is consistency in which 42% of all EIA documents got excellence, 50% has good and 8% is bad. Second aspect is necessity. All EIA Documents obtain excellence point. Then the third is relevance aspect. This aspect only has two valuation, i.e. excellence point is at 58% and good point is at 42%. Since 2019-2020, 16,7% of all documents have been implemented in 2019 and 8% of documents have been applied in 2020. But implementation report of RKL-RPL are not been submitted by business and activity (person in charge of activity is not obey in obligation compliance such as in environmental permits).

Acknowledgement

The authors would like to thank the Department of the Environment and Land of South Sumatra Province for providing data and facilities for data management.

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