



# REVIEW OF ANDAL DOCUMENT FOR A SPECIAL PURPOSE JETTY IN ASAHAN, NORTH SUMATRA

*Prepared for:*

**ESSA TECHNOLOGIES LTD.**  
#600 – 2695 GRANVILLE STREET  
VANCOUVER, BC  
CANADA V6H 3H4

*Prepared by:*

**PT HATFIELD INDONESIA**  
LIPI BUILDING 3<sup>RD</sup> FLOOR  
JL. IR. H. JUANDA NO. 18  
BOGOR 16122  
INDONESIA

**MAY 2017**

ESSA8643  
VERSION 1.0



# TABLE OF CONTENTS

LIST OF APPENDICES .....	i
DISTRIBUTION LIST .....	ii
AMENDMENT RECORD .....	ii
1.0 BACKGROUND .....	1
2.0 METHOD AND REFERENCE .....	1
3.0 ANDAL DOCUMENT AND KEY INFORMATION.....	2
4.0 SUMMARY OF KEY GAPS AND ISSUES.....	5
5.0 RECOMMENDATIONS .....	6

## LIST OF APPENDICES

Appendix A1	AMDAL Review Checklist
Appendix A2	Insert Text

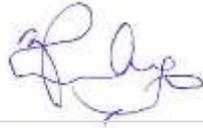
## DISTRIBUTION LIST

The following individuals/firms have received this document:

Name	Firm	Hardcopies	CDs	Email	FTP
Patricia De La Cueva Bueno	ESSA Technologies Ltd.			✓	

## AMENDMENT RECORD

This report has been issued and amended as follows:

Issue	Description	Date	Approved by	
1	First version of Review of ANDAL Document for a Special Purpose Jetty in Asahan, North Sumatra	2017-05-31		
			Bambang Tri S.A. Project Director	Perana Ketaren Project Manager

## 1.0 BACKGROUND

PT Hatfield Indonesia (PTHI) is assigned by ESSA Technologies LTD to perform a review of the environmental information specified in the ANDAL document (Environmental Impact Assessment) for a Special Purpose Jetty located in Lalang Village, Medang Deras District, Asahan Regency, North Sumatra, Indonesia. This report presents the results and recommendations of the ANDAL review for the Special Purpose Jetty.

## 2.0 METHOD AND REFERENCE

A desktop review of the ANDAL document is performed based on the requirements of applicable Government of Indonesia (GoI) laws and regulations, as listed below (Note: given the ANDAL was developed in 2006, several regulations listed below were used in the development of the ANDAL, but now these regulations have become obsolete and have been superseded by new regulations):

- Law No. 23 Year 1997 regarding Management of the Environment (now obsolete);
- Government regulation No. 27 Year 1999 regarding Environmental Impact Assessment – AMDAL (now obsolete);
- Ministry of Environment Decree No. 17 Year 2001 regarding Types of Business Activities that are Mandatory to have Environmental Impact Assessment – AMDAL (now obsolete);
- Environmental Impact Control Agency (Bapedal) Decree No. 09 Year 2000 regarding Guidelines for Developing AMDAL document (now obsolete);
- Law No. 32 Year 2009 regarding the Protection and Management of the Environment;
- Government Regulation No. 27 Year 2012 regarding Environmental Permit;
- Ministry of Environment Regulation No. 05 Year 2012 regarding Types of Business Activities Mandatory to have AMDAL; and
- Ministry of Environment Regulation No. 16 Year 2012 regarding Guidelines for the Development of Environmental Assessment Documents.

The key requirements of the laws and regulations pertaining to AMDALs and environmental permits are as follows:

- An AMDAL study consists of several documents (Bapedal Decree No. 09/2000) as follows:
  - Executive Summary;
  - Terms of Reference (*Kerangka Acuan*) for the Environmental Impact Assessment;
  - Environmental Impact Assessment (ANDAL – *Analisis Dampak Lingkungan Hidup*); and
  - Environmental Management and Monitoring Plans (RKL-RPL, *Rencana Pengelolaan Lingkungan Hidup-Rencana Pemantauan Lingkungan Hidup*).

- Development of jetties or sea ports with a length of more than 200 m and/or having a land size of more than 6,000 m<sup>2</sup> are made mandatory to have AMDAL study (Ministry of Environment Decree No. 17/2001);
- The AMDAL documents need to be evaluated and endorsed/approved by the AMDAL Commission at the Regency or Provincial level;
- Prior to the new regulation on environmental permit, issued in 2012, projects only require endorsement/approval of the AMDAL documents and do not require obtaining environmental permit;
- Letters of approvals for the AMDAL documents (approval of the terms of reference, ANDAL and RKL-RPL) are required prior to commencing construction; and
- Once the AMDAL is approved, the project proponent is required to submit either 3 or 6-monthly reports on the progress and implementation of the RKL-RPL (Environmental Management and Monitoring Plans).

### **3.0 ANDAL DOCUMENT AND KEY INFORMATION**

ESSA provided PTHI with an electronic/scanned copy of the ANDAL document. The ANDAL was developed in March 2006 as dated in the foreword section of the ANDAL.

ESSA provided an extensive checklist for the ANDAL review. PTHI has completed the checklist and is provided in Appendix A1. In summary, the review of the ANDAL document for the Special Purpose Jetty provided the following key information and/or records:

- The ANDAL document represents the environmental impact assessment study performed for the Special Purpose Jetty that is administratively located in Lalang Village, Medang Deras District, Asahan Regency, North Sumatra Province. The ANDAL document was developed in March 2006 by a local consultant with an address in Medan City (PT Kuala Biru Utama) for PT Sarana Industri Perkasa who will manage the development and operation of the Jetty;
- The purpose of the Special Jetty is for the transport of raw materials and products servicing the Industrial Area adjacent to the Jetty. Industries serviced by the Special Purpose Jetty include Palm Oil and Oleo-chemical industries (raw materials and products include Palm Kernel, Coal, Crude Palm Oil, Fatty Acid, Fatty Alcohol, Glycerine and Methanol);
- Location Permit for the Industrial Area and Jetty was issued by Asahan Regent through Decree No. 102/BPN/2003 in March 2003. The Location Permit is required for conducting land acquisition activities for the Project development. The Permit specifies that land acquisition must be completed within 24 months after the issuance of the Permit. The Location Permit can be extended for another 12 months period if land acquisition has reached 50% progress;
- Letter of announcement regarding the plan to develop a Special Purpose Jetty in Lalang Village, Medang Deras District, North Sumatra was issued by Environmental Impact Protection Agency (Bapedal), of North Sumatra, August 22, 2003 (Letter No. 561/BPDL.SU/BTL/2003)
- Letter of Recommendation for the Special Purpose Jetty Permit was issued by Pangkalan Dodek Port Authority, Medang Deras District, North Sumatra in December 20, 2004 (Letter No.

AL.107/1/03.P.PD.0.1). Geographical coordinates of the Jetty: 03°22'58.7"-03°23'47.9" North and 99°26'08.9"-99°26'44.4" South;

- Letter of Agreement for the Terms of Reference of the ANDAL document (KA or *Kerangka Acuan*) was issued by Environmental Impact Protection Agency (Bapedal) of North Sumatra in April 26, 2005 (Letter No. 268/BPDL-SU/BTL/2005);
- Table of responses with regards to stakeholder comments received during evaluation of ANDAL and RKL-RPL documents is attached to the ANDAL document. The evaluation of the ANDAL and RKL-RPL was conducted in March 28, 2006. The stakeholders include regulators, government officials, investment board, environmental impact agency, experts, representative of affected community, transportation agency, land agency, village empowerment representative, public health agency, head of Lalang Village-Medang District, university of North Sumatra academic, Pelindo – state owned port company, and marine fisheries agency;
- Trestle structure of the Jetty: 2,600 x 4.5 meters with Main Jetty (type "T" 70 x 24 m, water depth of 14 m), Secondary Jetty (12 x 6 m), Mooring Dolphins, lay bay and walking access. Berthing capacity of the Main Jetty is 55,000 DWT. Size of the land area is 18,344 m<sup>2</sup>;
- Associated facilities for the Jetty include office, warehouse, accommodation quarters, canteen, fuel tanks, parking area, toilets, septic tank and holding pond;
- Power for lighting is sourced from 6 generator sets with capacity of 2,800 kVA/unit (construction). Freshwater supply sourced from groundwater wells (construction) and the local Water Treatment Plant (operation);
- Scanned maps and drawings are black and white in color and of poor quality. As a result, interpretation of the maps and drawings were limited (not able to interpret the colored legends indicated in the maps and drawings);
- Construction schedule for the Special Purpose Jetty is as follows:
  - Land acquisition : October 2001-2002
  - Permitting : in process
  - Land clearing and cut and fill : 2002-2003
  - Design : 2003
  - Soil investigations : 2003
  - Review of design : 2003
  - Foundation erection : 2004
  - Construction : 2004-2006
  - Commercial use : 2006

- Primary baseline data include:
  - Seawater quality, sampled in September 2003 including analysis of benthos, phytoplankton and zooplankton (3 sampling points);
  - Surface water quality sampled in September 2003 (2 sampling points);
  - Groundwater quality sampled in September 2003 (2 sampling points);
  - Ambient air quality sampled in September 2003 (2 sampling points);
  - Noise levels sampled in September 2003 (2 sampling points); and
  - Terrestrial flora and fauna observations 2003 – 2005.
  
- Secondary data include (2003 to 2005):
  - Weather and climate;
  - Physiography;
  - Hydrology;
  - Land use;
  - Demography;
  - Socio-economic and socio-cultural conditions; and
  - Public health.
  
- The impact assessment for the environmental and social components were assessed for all phases of the Project: pre-construction, construction, operation and post operation activities;
  
- Large and important impacts include the following:
  - Changes to ambient air quality during construction (mobilization of heavy equipment, material movements, foundation work, soil compaction, construction of buildings);
  - Changes to noise levels during construction;
  - Changes to seawater quality during construction and operation phases;
  - Impacts to marine aquatic biota during construction and operation phases;
  - Impacts to marine transportation during construction and operation phases;
  - Work and trade opportunities leading to increase in livelihood condition; and
  - Impacts to public health.
  
- Some quantitative assessments were conducted in the ANDAL. For example, the ANDAL describes how the noise levels would increase up to 70 dBA around residential areas as result of the piling activities. With regards to impact assessment, information and analysis were offered for drawn conclusions but not in a consistent manner. Some analysis are quantitative, some analysis were simply concluded as having widespread impacts with limited justification.

## 4.0 SUMMARY OF KEY GAPS

The review of the ANDAL document (electronic format) that was provided to PTHI presented the following key gaps:

- **Validity of the ANDAL document.** The ANDAL document was developed in 2006. According to Government Regulation No.27/2012 on Environmental Permit, the approval for the ANDAL (and RKL-RPL) document is considered equivalent to an environmental permit. Government Regulation No.27/2012, article 50 specifies that **revision to the environmental permit (or ANDAL approval) is required if 3 years after the issuance of the environmental permit (or ANDAL approval), project activities do not take place.** The regulation considers that after 3 years there may be changes to the baseline conditions, and as such may also entail changes to the predicted impacts specified in the ANDAL document;
- **Assessment of critical and endangered species.** The assessment of the biological component in the AMDAL did not provide information on the existence of critical and endangered species at the project site with reference to Government Regulation No. 7 Year 1999 regarding Conservation of Flora and Fauna, IUCN Red List (International Union for Conservation of Nature and Natural Resources) and CITES (Convention on International Trade in Endangered Species of Wild Flora and Fauna);
- **Assessment of impacts on marine-based livelihoods as result of the operation of the jetty.** The ANDAL document did not provide assessment of impacts on livelihoods of affected communities as result of the jetty operation;
- **Assessment of cumulative impacts** as result of existing activities and also future developments adjacent to the project site was not conducted by the ANDAL study;
- **Submission of periodic reports on the implementation of the RKL-RPL.** Submission of periodic reports (every three or six months) on the progress and implementation of the RKL-RPL to the authorities (regency and/or province) is required by regulation. This reporting requirement should be specified in the ANDAL approval. **The submission of these periodic reports to the authority can be regarded as evidence that project activities are taking place and supports the validity of the ANDAL (and RKL-RPL) document.**

## 5.0 RECOMMENDATIONS

With regards to the key gaps and issues presented in Section 4, the following are recommendations for bridging the gaps:

- Clarify the need for an updated ANDAL for the finalization of the jetty construction, based on Government Regulation No.27/2012;
- Clarify the submissions of periodic reports to the authority for the progress and implementation of the RKL-RPL documents. If there have been no submission of reports, the authorities may consider that no activities are taking place, and as such, the ANDAL and RKL-RPL documents are considered as void (not valid or legally binding). As such, a new AMDAL study would be required. The decision on the validity of the ANDAL (and RKL-RPL) document is solely at the discretion of the authorities issuing the approval for the ANDAL (and RKL-RPL);
- Further assess or update the potential impacts on marine-based livelihoods;
- Further assess or update the level of potential impacts on critical and endangered species at the project site; and

- Further assess or update the level of cumulative impacts with regards to the current Project progress and in consideration of other developments that have taken place at site.

---

## APPENDICES

---

---

**Appendix A1**

**ANDAL Review Checklist**

---

## CHECKLIST FOR THE REVIEW OF ENVIRONMENTAL ASSESSMENTS

QUESTION		RELEVANT T (Y/N)	APPROPRIATELY ADDRESSED (Y/N)	COMMENT
<b>ANDAL = Environmental and Social Impact Assessment</b>				
<b>1 DESCRIPTION OF THE PROJECT</b>				
<i>Purpose of the Project &amp; Status of Decision Making</i>				
1.1	Are the purpose(s) and objectives, or rationale for the project explained?	<b>Y</b>	<b>Y</b>	Section 1.1 Background: Purpose of the development of the Special Port is for supply of raw materials and export of products for industries residing inside the Industrial Estate owned by PT Sarana Industama Perkasa, located in Lalang Village, Medang Deras Sub-District, Asahan Regency, North Sumatra. The Special Port is located 03°23'46" N and 99°26'57" E, with length of 2.6 km and width 4.25 m, designed for vessels with capacity up to 55.000 DWT. This Special Port is located next to the KPN Jetty (700-1,200 m distance) owned by PT Multimas Nabati Asahan.
1.2	Does the report list all environmental approvals that are required for the project to proceed? Is the status of the permits/approvals indicated?	<b>Y</b>	<b>N</b>	<p>The ANDAL document only included approval for the Terms of Reference (TOR) or <i>Kerangka Acuan</i> (KA) for the ANDAL. It is unclear whether the ANDAL document was approved by the authority as letter of approval was not provided in the ANDAL document. The ANDAL document was developed in 2006. According to Government Regulation No.27/2012 on Environmental Permit, the approval for the ANDAL (and RKL-RPL) document is considered equivalent to an environmental permit.</p> <p>The primary data for the environmental and social baseline information was collected around September 2003 (14 years ago). Government Regulation No.27/2012, article 50 specifies that revision to the environmental permit (or ANDAL approval) is required if 3 years after the issuance of the environmental permit (or ANDAL approval), project activities do not take place. The regulation considers that after 3 years there may be changes to</p>

QUESTION		RELEVANT (Y/N)	APPROPRIATELY ADDRESSED (Y/N)	COMMENT
				the baseline conditions, and as such may also entail changes to the predicted impacts specified in the ANDAL document.
<b><i>Project Timing</i></b>				
1.3	Does the report include a projected timeline for the construction phase, the operations phase and the decommissioning phase (if applicable)?	<b>Y</b>	<b>N</b>	<p>The ANDAL document only provided the following information (Page 90 of pdf file, Table 4.1):</p> <ul style="list-style-type: none"> <li>• Land acquisition: October 2001-2002</li> <li>• Permitting: in process</li> <li>• Land clearing and cut and fill: 2002-2003</li> <li>• Design: 2003</li> <li>• Soil investigations: 2003</li> <li>• Review of design: 2003</li> <li>• Foundation erection: 2004</li> <li>• Construction: 2004-2006</li> <li>• Commercial use: 2006</li> </ul> <p>The above information is not consistent with timing of the ANDAL development, in 2006. According to GoI regulation construction cannot take place prior to approval of the ANDAL.</p>
<b><i>Details of Construction, Operations, Decommissioning</i></b>				
1.4	Are the methods of construction described? Is there sufficient detail?	<b>Y</b>	<b>N</b>	<p>Methods of construction are described as follows:</p> <ul style="list-style-type: none"> <li>• Pile foundation, approx. 2,500 piles, 55 m depth, pile dia. 60 &amp; 80 cm</li> <li>• Sheet piling installed using pile driver;</li> <li>• Trestle structure;</li> <li>• Pile cap for working platform;</li> <li>• Main jetty for large vessels up to 550,000 DWT</li> <li>• Secondary jetty for 100,000 DWT vessels</li> </ul>

QUESTION		RELEVANT (Y/N)	APPROPRIATELY ADDRESSED (Y/N)	COMMENT
1.5	Is the activity associated to the jetty (e.g., expected traffic – number of ships per day – type of ships, etc.), once it has been built, described?	Y	N	No information on number of ships and expected sea traffic. ANDAL only describe information on maximum capacity of vessels 55,000 DWT that can berth at the main jetty.
<i>Physical Characteristics</i>				
1.6	Are the design and size of the project described, using diagrams, plans and/or maps, as necessary?	Y	Yes and No	Based on the ANDAL, the port is jetty Type “T”. Trestle is 2,600m x 4.5m; main jetty is 70m x 24 m; secondary jetty is 12 m x 6 m. Required land size is 18,344 m <sup>2</sup> .  Diagrams, drawings, plans and maps are provided both in the main sections of the ANDAL and appendices, however the quality of the scanned document was not sufficient to able to interpret the information on the maps.
1.7	Are the following clearly shown on the scaled map: • sea bed and marine sediments characteristics at the project	Y	N	Not able to interpret the maps: <ul style="list-style-type: none"> <li>- Situation map (simple attributes not much information)</li> <li>- Study boundary map, scanned file is in black and white, cannot distinguish the boundaries (administration boundary, social boundary, study boundary, ecology boundary).</li> <li>- Scanned sampling map fonts blurry and not clear</li> <li>- Topography map was blurry and black and white</li> <li>- Geology map was blurry and black and white</li> <li>- Watershed map was blurry and black and white</li> </ul>

QUESTION		RELEVANT (Y/N)	APPROPRIATELY ADDRESSED (Y/N)	COMMENT
	site(s) <ul style="list-style-type: none"> <li>• access arrangements</li> <li>• auxiliary facilities</li> <li>• the construction site(s), including the camps for housing workers (if required)?</li> </ul>			No information on seabed and marine sediments characteristics, access arrangements, auxiliary facilities nor camps (plot plan for construction not available).
1.8	Has the use (e.g., fishing, other marine traffic routes) of the marine area around the jetty been described and shown on a plan?	Y	N	The provided maps do not show fishing, and other marine traffic routes.
<i>Project inputs</i>				
1.9	Are there indications of the nature and the quantities of the materials needed for the construction and	Y	N	The ANDAL document only listed required materials for construction but did not provide the quantities nor the nature of the materials.

QUESTION		RELEVANT (Y/N)	APPROPRIATELY ADDRESS ED (Y/N)	COMMENT
	operational phases?			
1.10	Is there an estimate(s) of the number of workers and visitors entering the project site during construction and operation?	Y	N	88 workers required during construction (Page 93 of the pdf ANDAL) and 60 workers during operation of the port (Page 103 of the pdf ANDAL). No information on estimates of the visitors to project site.
1.11	Have the workers' means of access and transport been described?	Y	N	Workers' access and transport are not described in the ANDAL document.
1.12	Has the means of transporting materials and products to and from the site during construction and operation been indicated? Has the number of transports been given?	Y	N	The ANDAL document only described there are 8 vehicle movements back and forth for transporting material during construction. However, no information on the truck or vehicle type and size. No information on the vehicle movements during operation.

QUESTION		RELEVANT (Y/N)	APPROPRIATELY ADDRESSED (Y/N)	COMMENT
<b>2 ALTERNATIVES</b>				
2.1	Does the report include references to the consideration of alternatives by the developers?	<b>Y</b>	<b>N</b>	No alternatives considered in the ANDAL document.
2.2	If alternatives are described, are they realistic and genuine alternatives to the proposed project?	<b>Y</b>	<b>N</b>	No alternatives considered in the ANDAL document.
2.3	Are the environmental factors used to compare alternatives adequately described and justified?	<b>Y</b>	<b>N</b>	No alternatives considered in the ANDAL document.
2.4	Is there an adequate comparison of the alternatives,	<b>Y</b>	<b>N</b>	No alternatives considered in the ANDAL document.

QUESTION		RELEVANT (Y/N)	APPROPRIATELY ADDRESS ED (Y/N)	COMMENT
	using a clear set of environmental factors?			
<b>3 DESCRIPTION OF THE EXISTING ENVIRONMENT (BASELINE)</b>				
<i>Study Area</i>				
3.1	Is there a definition of the study area broad enough to include potential significant environmental impacts on areas away from the immediate construction and operation sites?	<b>Y</b>	<b>N</b>	The baseline data only represents the immediate areas adjacent to the project site, along the jetty and trestle alignment, water quality of nearest rivers, air quality at project site and nearest residential area, groundwater quality at project site and nearest residential area.
3.2	Does the report include maps showing the study areas? Are significant natural and settlement features shown on the map?	<b>Y</b>		Yes, maps of the study areas are provided in the ANDAL document. However, not able to interpret the map as the scanned file is in black and white while the boundaries are distinguished using colors (administrative, social, study, ecological boundaries).  Not much information on the natural and settlement features on the map.

QUESTION		RELEVANT (Y/N)	APPROPRIATELY ADDRESSED (Y/N)	COMMENT
3.3	Have the marine uses of the areas surrounding the site(s) been described?	Y	N	The ANDAL document do not describe the marine uses around the project site.
<i>Baseline Conditions</i>				
3.4	Have the components of the environment (e.g., marine habitats and resources) potentially affected by the project been identified and described sufficiently for the prediction of impacts?	Y	N	The ANDAL document does not describe the marine habitats (coastal turtle habitats etc) and resources potentially affected by the project.
3.5	Is there an adequate description of existing oceanographic conditions? (e.g., currents, sea levels)	Y	Y	The ANDAL described the hydro-oceanography characteristics of the project site, which include bathymetry (slope to a depth of 3 m, 0-150 m from coastline, and 15 m water depth at 2600 m from coastline – with bathymetry map), tidal (2 high tides and 2 low tides in one day), current patterns and velocities, and mass sediment transport.

QUESTION		RELEVANT (Y/N)	APPROPRIATELY ADDRESSED (Y/N)	COMMENT
3.6	Is there an adequate description of existing of the seabed and marine sediments (i.e., conditions for the foundations of the jetty)?	Y	Y	Geology profile maps are provided in the appendix section of the ANDAL however difficult to interpret due to poor quality of the scanned file. The appendix also provided photographic pictures of the boreholes testing at site. The data presented is considered sufficient for evaluating the foundations of the jetty.
3.7	Is there an adequate description of socio-economic conditions? (e.g., fishing or other activities involving coastal and marine resources, indigenous communities or other vulnerable groups that could be affected by the construction and	Y	N	<p>The socio-economic and cultural description is provided in page 137 of the pdf ANDAL. The information include demographic features (population, households, population increase, birth and death rates, migration, education of population), socio-economic (occupation, economic growth rate, working opportunity, income per capita, ethnic background, community health, security, and community knowledge/perception on project development).</p> <p>13.8% of the population in Medang Sub-district are fishermen while 34.7 are farmers and 33.45 are working for private companies.</p> <p>No information on:</p> <ul style="list-style-type: none"> <li>- Indigenous peoples;</li> <li>- Vulnerable communities.</li> </ul>

QUESTION		RELEVANT (Y/N)	APPROPRIATELY ADDRESSED (Y/N)	COMMENT
	operation of the jetty, etc.)			
3.8	Is there an adequate description of marine biological conditions (species and habitats, communities and populations)?	Y	N	<p>ANDAL listed the terrestrial flora and fauna species found at the project site (page 133 of the pdf doc). The ANDAL did not provide information on the endangered or protected status of those species.</p> <p>Plankton (phyto and zooplankton), nekton and benthos species are listed in the ANDAL (page 134), taxonomy, diversity and abundance are assessed.</p> <p>Habitats of the marine species are not described in the ANDAL document.</p>
3.9	Were the methods used to investigate the affected environment appropriate to the size and complexity of the assessment task?	Y	N	The methods did not consider effect on marine habitats (turtle egg laying grounds, marine mammals' habitat etc).
3.10	Does the report consider the likely changes to the baseline that might occur even if the	Y	N	The ANDAL does not describe the likely changes to the baseline even if the project does not proceed.

QUESTION		RELEVANT (Y/N)	APPROPRIATELY ADDRESSED (Y/N)	COMMENT
	project does not proceed?			
3.11	Have existing technical data sources, including local records and studies carried out for environmental agencies and/or interest groups, been searched?	Y	Y	Technical data for spatial plan, hydrology/watershed, hydro-oceanography, topography, geology, demography, occupation, education, public health were searched and information provided in the ANDAL.
3.12	Are statements or facts substantiated by data that is adequately referenced?	Y	Y	Yes, statements and secondary data are adequately sourced in the main text and Chapter VIII (References).
3.13	Have local, regional and national plans and policies been reviewed and other necessary data collected to predict future	Y	N	The ANDAL only acknowledged that the spatial planning for the project site is designated as port/terminal region to support industrial activities. The assessment did not go further to explain what other developments will take place in the future and how these future developments affect environmental conditions.

QUESTION		RELEVANT (Y/N)	APPROPRIATELY ADDRESSED (Y/N)	COMMENT
	environmental conditions?			
3.14	Have local, regional and national agencies holding information on baseline environmental conditions been approached?	Y	Y	Weather data (temperature, humidity, precipitation, atmospheric pressure, solar radiation and wind data) were sourced from local and regional weather agencies.
<b>4 DESCRIPTION OF IMPACTS</b>				
<i>Impact Identification: (Note: impacts may be described taking into account mitigation which is part of the basic project design, or mitigation may be identified after significant impacts have been identified)</i>				
4.1	Have the direct and indirect/secondary effects of constructing, operating, and where relevant, after use or decommissioning of the project been considered (including positive and	Y	Y	The ANDAL developed three matrices for i) important and large impact interactions; ii) prediction of important and large impacts; iii) evaluation of important and large impacts; and also diagram for describing direct and indirect impacts (pages 150 & 151 of the pdf doc). The impact assessment was done for the pre-construction, construction and operation phases of the project.

QUESTION		RELEVANT (Y/N)	APPROPRIATELY ADDRESS ED (Y/N)	COMMENT
	negative effects)?			
4.2	Is there consideration of whether effects will arise as a result of 'consequential' development, i.e. whether additional development, will be induced in the area leading to further environmental effects?	Y	N	The ANDAL does not describe other development plans and/or activities in the area and how these affect the project. The ANDAL only stated that the Project is in close proximity to an existing jetty in the industrial area.
4.3	Have the potential impacts on coastal geomorphic processes been investigated?	Y	N	Abrasion, sedimentation and mass sediment transport was evaluated for the Project in the ANDAL (page 128) under the baseline chapter. However, in the impact assessment, the ANDAL stated there is no changes to the mass sediment transport of the baseline condition as result of the jetty construction. This seems unlikely since the construction is sheet piling which would reflect/change the direction of the waves and change the characteristics of the mass sediment transport.

QUESTION		RELEVANT (Y/N)	APPROPRIATELY ADDRESSED (Y/N)	COMMENT
4.4	Have the potential impacts on socio-economic conditions been investigated? (e.g., employment, settlement patterns, economic activities, community services, transportation, historic & cultural resources, indigenous communities, etc.)	Y	N	<p>The socio-economic impact assessment mainly included the following components:</p> <ul style="list-style-type: none"> <li>- Work and trading opportunities (including employment);</li> <li>- Increase of income/welfare (including economic activities);</li> <li>- Community perception; and</li> <li>- Public health;</li> </ul> <p>The ANDAL did not assess impacts on:</p> <ul style="list-style-type: none"> <li>- Settlement patterns;</li> <li>- Community services;</li> <li>- Transportation;</li> <li>- Historic and cultural resources; and</li> <li>- Indigenous communities.</li> </ul>
4.5	Have the potential impacts on marine biological conditions been investigated (species and	Y	N	The ANDAL stated potential impacts leading to the reduction of marine biota production (page 159). However, the assessment did not specifically describe the components of marine production that was affected leading to reduced production. Impacts on species and habitats, communities and population were not described in the ANDAL document.

QUESTION		RELEVANT (Y/N)	APPROPRIATELY ADDRESSED (Y/N)	COMMENT
	habitats, communities and populations)?			
4.6	If any of the above components were not investigated, is there an adequate rationale in the report to justify their exclusion?	Y	N	Impacts on species and habitats, communities and population were not described in the ANDAL document. The rationale to justify the exclusion of these components in the ANDAL was unavailable.
4.7	Is each impact investigated appropriately, relative to its importance for the decision? Does the investigation avoid unnecessary information and concentrate on key issues?	Y	N	Impacts related to marine habitats, dredging (if required), livelihood restoration of affected peoples, cultural heritage and indigenous peoples were not investigated in the ANDAL document. However, it is acknowledged that the Government of Indonesia regulation does not require assessment on some of these impacts (i.e. livelihood restoration, cultural heritage and indigenous peoples).

QUESTION		RELEVANT (Y/N)	APPROPRIATELY ADDRESSED (Y/N)	COMMENT
4.8	Are impacts, which are not significant independently but may contribute cumulatively to a significant effect, considered?	Y	N	One of the criteria for evaluating the potential impacts is the cumulative effect (page 146). However, there is limited explanation on why, how, where, magnitude of the cumulative impact.
4.9	Are impacts on non-renewable resources considered?	Y	N	The ANDAL does not describe impacts on non-renewable resources such as fuel for vehicles and equipment.
<i>Accidents &amp; Malfunctions</i>				
4.10	Has consideration been given to impacts which may arise from: <ul style="list-style-type: none"> <li>• changes in sea levels (storms, hurricanes or climate change, etc.)</li> </ul>	Y	N	The ANDAL does not consider potential impacts arising from changes in sea levels, accidents or emergencies, as these components are not required to be assessed in the ANDAL according to Government of Indonesia regulation.

QUESTION		RELEVANT (Y/N)	APPROPRIATELY ADDRESS ED (Y/N)	COMMENT
	<ul style="list-style-type: none"> <li>• accidents</li> <li>• emergencies?</li> </ul>			
4.11	If the nature of the project is such that accidents are possible which might cause severe damage within the surrounding environment, has an assessment of the probability and likely consequences of such events been carried out and the main findings reported?	Y	N	The ANDAL does not consider potential accidents (likeliness and consequences) that may cause severe damage to the surrounding environmental components are not required to be assessed in the ANDAL according to Government of Indonesia regulation.
<i>Methodology</i>				
4.12	Does the information include a description of	Y	Y	Chapter III of the ANDAL doc describes the study methodology. The methods include quantitative and qualitative assessments of the impacts. Primary and secondary data are collected and then assessed to screen large and important impacts. Criteria for evaluating impacts include:

QUESTION		RELEVANT (Y/N)	APPROPRIATELY ADDRESSED (Y/N)	COMMENT
	the methods/approaches used to identify impacts and the rationale for using them?			<ol style="list-style-type: none"> <li>1. Number of affected people;</li> <li>2. Size of area affected;</li> <li>3. Length of time the impact is occurring;</li> <li>4. Impact intensity;</li> <li>5. Number of other environmental components also being impacted;</li> <li>6. Cumulative impact characteristic; and</li> <li>7. Reversibility of impact.</li> </ol>
4.13	Are areas of uncertainty appropriately acknowledged	Y	N	The ANDAL document does not describe areas of uncertainty.
<b>5 MITIGATION</b>				
<i>Description of Mitigating Measures</i>				
5.1	Has the mitigation of significant negative impacts been considered, and, where feasible, have specific measures been proposed to address each impact?	Y	N	The ANDAL document only represents the environmental and social impact assessment for the Project. According to the past Ministry of Environment Decree No. KEP-14/MENLH/3/1994 regarding General Guidelines for Developing AMDAL (now the decree is superseded by Ministry of Environmental Regulation No. 16 Year 2012 regarding Guidelines for Developing Environmental Assessment Documents.), the mitigation measures for the impacts are required to be addressed in the RKL-RPL document (Environmental Management and Monitoring Plan). The RKL-RPL document was not provided for the review.
5.2	Are there descriptions of the reasons for	Y	N	The ANDAL document only represents the environmental and social impact assessment for the Project. According to the past Ministry of Environment Decree No. KEP-14/MENLH/3/1994 regarding General

QUESTION		RELEVANT (Y/N)	APPROPRIATELY ADDRESSED (Y/N)	COMMENT
	choosing a particular type of mitigation, as well as the other options available?			Guidelines for Developing AMDAL (now the decree is superseded by Ministry of Environmental Regulation No. 16 Year 2012 regarding Guidelines for Developing Environmental Assessment Documents.), the mitigation measures for the impacts are required to be addressed in the RKL-RPL document (Environmental Management and Monitoring Plan). The RKL-RPL document was not provided for the review.
5.3	Is it clear to what extent the mitigation methods will be effective?	Y	N	The ANDAL document only represents the environmental and social impact assessment for the Project. According to the past Ministry of Environment Decree No. KEP-14/MENLH/3/1994 regarding General Guidelines for Developing AMDAL (now the decree is superseded by Ministry of Environmental Regulation No. 16 Year 2012 regarding Guidelines for Developing Environmental Assessment Documents.), the mitigation measures for the impacts are required to be addressed in the RKL-RPL document (Environmental Management and Monitoring Plan). The RKL-RPL document was not provided for the review.
5.4	Is the following made clear, and has data been introduced to justify assumptions made: <ul style="list-style-type: none"> <li>• where the effectiveness of mitigation is uncertain</li> </ul>	Y	N	The ANDAL document only represents the environmental and social impact assessment for the Project. According to the past Ministry of Environment Decree No. KEP-14/MENLH/3/1994 regarding General Guidelines for Developing AMDAL (now the decree is superseded by Ministry of Environmental Regulation No. 16 Year 2012 regarding Guidelines for Developing Environmental Assessment Documents.), the mitigation measures for the impacts are required to be addressed in the RKL-RPL document (Environmental Management and Monitoring Plan). The RKL-RPL document was not provided for the review.

QUESTION		RELEVANT (Y/N)	APPROPRIATELY ADDRESSED (Y/N)	COMMENT
	<ul style="list-style-type: none"> <li>mitigation made on assumptions about operation procedures, climate conditions etc.</li> <li>assumptions where there is a risk that mitigation will not work?</li> </ul>			
5.5	<p>Have the following been presented:</p> <ul style="list-style-type: none"> <li>details of how mitigation</li> </ul>	Y	N	The ANDAL document only represents the environmental and social impact assessment for the Project. According to the past Ministry of Environment Decree No. KEP-14/MENLH/3/1994 regarding General Guidelines for Developing AMDAL (now the decree is superseded by Ministry of Environmental Regulation No. 16 Year 2012 regarding Guidelines for Developing Environmental Assessment Documents.), the mitigation measures for the impacts are required to be addressed in the

QUESTION		RELEVANT (Y/N)	APPROPRIATELY ADDRESSED (Y/N)	COMMENT
	<p>measures will be implemented</p> <ul style="list-style-type: none"> <li>function over the time span for which they are necessary?</li> </ul>			RKL-RPL document (Environmental Management and Monitoring Plan). The RKL-RPL document was not provided for the review.
<i>Environmental Effects of Mitigation</i>				
5.6	Have any adverse environmental effects of mitigation measures been investigated and described?	Y	N	The ANDAL document only represents the environmental and social impact assessment for the Project. According to the past Ministry of Environment Decree No. KEP-14/MENLH/3/1994 regarding General Guidelines for Developing AMDAL (now the decree is superseded by Ministry of Environmental Regulation No. 16 Year 2012 regarding Guidelines for Developing Environmental Assessment Documents.), the mitigation measures for the impacts are required to be addressed in the RKL-RPL document (Environmental Management and Monitoring Plan). The RKL-RPL document was not provided for the review.
5.7	Has the potential for conflict between the benefits of mitigating measures and their adverse	Y	N	The ANDAL document only represents the environmental and social impact assessment for the Project. According to the past Ministry of Environment Decree No. KEP-14/MENLH/3/1994 regarding General Guidelines for Developing AMDAL (now the decree is superseded by Ministry of Environmental Regulation No. 16 Year 2012 regarding Guidelines for Developing Environmental Assessment Documents.), the mitigation measures for the impacts are required to be addressed in the

QUESTION		RELEVANT (Y/N)	APPROPRIATELY ADDRESSED (Y/N)	COMMENT
	impacts been considered?			RKL-RPL document (Environmental Management and Monitoring Plan). The RKL-RPL document was not provided for the review.
<b>6 MAGNITUDE AND SIGNIFICANCE OF IMPACTS</b>				
<i>Magnitude</i>				
6.1	<p>Are the impacts described in terms of:</p> <ul style="list-style-type: none"> <li>• the nature and magnitude of the change</li> <li>• the nature (location, number, value, sensitivity) of the affected receptors?</li> </ul>	<b>Y</b>	<b>N</b>	<p>The impacts are scaled 1, 3 and 5 in terms of the magnitude/size of the impacts in increasing order. And impact with a magnitude of 5 is regarded as a large and important impact.</p> <p>There is limited information on the location, number, value and sensitivity of the affected receptors.</p>
6.2	Is it clear whether the timescale of the	<b>Y</b>	<b>N</b>	The time scale of the impacts are generally explained as occurring during construction or operation phase. There is information on the time of the

QUESTION		RELEVANT (Y/N)	APPROPRIATELY ADDRESSED (Y/N)	COMMENT
	effects predicted are short, medium or long term, temporary or permanent, reversible or irreversible?			<p>construction (2 years, estimated to take place 2004 -2006), however there is no time frame for operations.</p> <p>There is some information on the nature of the impacts (reversible or irreversible).</p>
6.3	Where possible, have predicted impacts been expressed in quantitative terms? If not, have quantitative descriptions been defined?	Y	Y	When possible, quantitative assessment are conducted in the ANDAL. For example, the ANDAL describes how the noise levels would increase up to 70 dBA around residential areas as result of piling activities.
6.4	If quantitative predictions are provided, is the level of uncertainty of the results described?	Y	N	No, level of uncertainty is not described in the ANDAL.
6.5	Have the methods used to predict the nature, size and scale of the	Y	Y	<p>Chapter III of the ANDAL doc describes the study methodology. The methods include quantitative and qualitative assessments of the impacts. Primary and secondary data are collected and then assessed to screen large and important impacts. Criteria for evaluating impacts include:</p> <ol style="list-style-type: none"> <li>1. Number of affected people;</li> </ol>

QUESTION		RELEVANT (Y/N)	APPROPRIATELY ADDRESSED (Y/N)	COMMENT
	impact been described, and are they appropriate to the importance to each projected impact?			<ol style="list-style-type: none"> <li>2. Size of area affected;</li> <li>3. Length of time the impact is occurring;</li> <li>4. Impact intensity;</li> <li>5. Number of other environmental components also being impacted;</li> <li>6. Cumulative impact characteristic; and</li> <li>7. Reversibility of impact.</li> </ol> <p>However, there is limited explanation and consistency on how the above criteria are being used to predict the impacts.</p>
6.6	<p>Is the data used to estimate the size and scale of the main impacts sufficient for the task?</p> <p>Is it clearly described and have their sources been clearly identified?</p>	<b>Y</b>	<b>N</b>	Data used to estimate the size and scale of the main impacts are not sufficient. Limited number of samples were taken to represent the baseline data, which was taken only during one period of time in September 2003: 2 air quality samples, 3 seawater quality samples (physical parameters, plankton). These samples were taken during the wet season, hence it is unknown how these environmental qualities fluctuate during the dry seasons.
<i>Significance</i>				
6.7	Has the significance of effects been described in terms of extent (i.e., the area	<b>Y</b>	<b>N</b>	Although Chapter III of the ANDAL described the methodology and criteria of size of area affected in evaluating the impacts, the assessment in the ANDAL provided limited information on the extent of the impacts (the size of area being affected).

QUESTION		RELEVANT (Y/N)	APPROPRIATELY ADDRESSED (Y/N)	COMMENT
	over which the effects are expected to occur)?			
6.8	Has the significance of effects been described in terms of duration?	Y	N	Although Chapter III of the ANDAL described the methodology and criteria of length of time in evaluating the impacts, the time scale of the impacts are generally explained as occurring during construction or operation phase. There is information on the time of the construction (2 years, estimated to take place 2004 -2006), however there is no time frame for operations.
6.9	Has the significance of effects been described in terms of frequency/timing?	Y	N	Limited information on the frequency/timing, only regarding frequency of heavy vehicle movements: 8 rotations per day during construction phase.
6.10	Has the significance of effects been discussed in terms of ecological importance and societal value (e.g., the impact on the local community and on the	Y	N	The ANDAL provided limited description on the ecological importance. The ANDAL listed the flora and fauna species in the baseline information however, no information regarding endangered and protected species and species value (economic and cultural value) for the community.

QUESTION		RELEVANT (Y/N)	APPROPRIATELY ADDRESSED (Y/N)	COMMENT
	protection of environmental resources)?			
6.11	Has the potential reversibility of effects been considered?	Y	Y	There is some information on the nature of the impacts (reversible or irreversible) on each paragraph explaining the impact assessment for each environmental and/or social component.
6.12	Has the probability or likelihood of the effect occurring been considered?	Y	N	No. The Government of Indonesia regulation on AMDAL development does not require assessing the probability or likelihood of effect occurring.
6.13	Has the significance of effects been discussed taking account of appropriate national and international standards or norms, where these are available? Otherwise have the			Chapter III of the ANDAL doc describes the study methodology. The methods include quantitative and qualitative assessments of the impacts. Primary and secondary data are collected and then assessed to screen large and important impacts. Criteria for evaluating impacts include: <ol style="list-style-type: none"> <li>1. Number of affected people;</li> <li>2. Size of area affected;</li> <li>3. Length of time the impact is occurring;</li> <li>4. Impact intensity;</li> <li>5. Number of other environmental components also being impacted;</li> <li>6. Cumulative impact characteristic; and</li> <li>7. Reversibility of impact.</li> </ol>

QUESTION		RELEVANT (Y/N)	APPROPRIATELY ADDRESSED (Y/N)	COMMENT
	magnitude, location and duration of the effect been discussed in conjunction with the value, sensitivity and rarity of the resource?			<p>However, there is limited explanation and consistency on how the above criteria are being used to predict the impacts in the ANDAL.</p> <p>The development of the ANDAL does not need to account for international standards.</p>
6.14	Where there are no generally accepted standards of criteria for the evaluation of significance, have alternative approaches been discussed, and if so, is a clear distinction made between fact, assumption and professional judgment?	N	N	<p>According to the regulations, The ANDAL provided criteria for evaluating impacts that include:</p> <ol style="list-style-type: none"> <li>1. Number of affected people;</li> <li>2. Size of area affected;</li> <li>3. Length of time the impact is occurring;</li> <li>4. Impact intensity;</li> <li>5. Number of other environmental components also being impacted;</li> <li>6. Cumulative impact characteristic; and</li> <li>7. Reversibility of impact.</li> </ol> <p>However, there is limited explanation and consistency on how the above criteria are being used to predict the impacts in the ANDAL.</p> <p>There is explanation for distinction between fact, assumption and professional judgement.</p>
6.15	Does the report include clear conclusions on	Y	Y	Yes, Section/Chapter VI describes the identification of potential impacts and evaluation of significant impacts. However, there is inconsistencies between the rationale of evaluating the significance of the impact and the

QUESTION		RELEVANT (Y/N)	APPROPRIATELY ADDRESSED (Y/N)	COMMENT
	which impacts may be significant and which may not?			table summarizing the significant impacts. Under the rationale paragraph (page 181) traffic is considered as important negative impact, however the matrix in page 187, traffic impact is considered not important.
6.16	Where mitigating measures are proposed, has the significance of any impacts remaining after mitigation been described?	Y	N	The ANDAL document only represents the environmental and social impact assessment for the Project. According to the past Ministry of Environment Decree No. KEP-14/MENLH/3/1994 regarding General Guidelines for Developing AMDAL (now the decree is superseded by Ministry of Environmental Regulation No. 16 Year 2012 regarding Guidelines for Developing Environmental Assessment Documents.), the mitigation measures for the impacts are required to be addressed in the RKL-RPL document (Environmental Management and Monitoring Plan). The RKL-RPL document was not provided for the review.
<b>7 FOLLOW-UP &amp; MONITORING ACTIVITIES</b>				
7.1	If impacts are uncertain, have monitoring arrangements been proposed to check the environmental impacts resulting from the implementation of the project and their conformity with	N		The ANDAL does not identify any uncertain impacts. The regulation on AMDAL does not require identification of uncertain impacts.

QUESTION		RELEVANT (Y/N)	APPROPRIATELY ADDRESSED (Y/N)	COMMENT
	the predictions made?			
7.2	Does the scale of any proposed monitoring arrangements correspond to the potential scale and significance of deviation from expected impacts?	Y	N	The ANDAL document only represents the environmental and social impact assessment for the Project. According to the past Ministry of Environment Decree No. KEP-14/MENLH/3/1994 regarding General Guidelines for Developing AMDAL (now the decree is superseded by Ministry of Environmental Regulation No. 16 Year 2012 regarding Guidelines for Developing Environmental Assessment Documents.), the mitigation measures for the impacts are required to be addressed in the RKL-RPL document (Environmental Management and Monitoring Plan). The RKL-RPL document was not provided for the review.
7.3	Are there clear monitoring requirements to ensure that mitigation measures are implemented and working properly?	Y	N	The ANDAL document only represents the environmental and social impact assessment for the Project. According to the past Ministry of Environment Decree No. KEP-14/MENLH/3/1994 regarding General Guidelines for Developing AMDAL (now the decree is superseded by Ministry of Environmental Regulation No. 16 Year 2012 regarding Guidelines for Developing Environmental Assessment Documents.), the mitigation measures for the impacts are required to be addressed in the RKL-RPL document (Environmental Management and Monitoring Plan). The RKL-RPL document was not provided for the review.
<b>8 CONCLUSIONS</b>				
8.1	Are there clear conclusions on the results of the	Y	Y	The ANDAL developed three matrices for i) important and large impact interactions; ii) prediction of important and large impacts; iii) evaluation of important and large impacts; and also diagram for describing direct and

QUESTION		RELEVANT (Y/N)	APPROPRIATELY ADDRESSED (Y/N)	COMMENT
	EA process that are understandable?			indirect impacts (pages 150 & 151 of the pdf doc). The impact assessment was done for the pre-construction, construction and operation phases of the project.
8.2	If the results are inconclusive, does the report recommend further study?	N		The Government of Indonesia regulation on AMDAL does not allow the ANDAL to be inconclusive.
8.3	Have gaps in the required date been indicated? Have the means used to deal with them in the assessment been explained?	N		The Government of Indonesia regulation on AMDAL does not allow the ANDAL to have gaps, otherwise the AMDAL will not be approved by the government.
8.4	Have any difficulties in assembling or analyzing the data needed to predict impacts been acknowledged and explained?	N	N	The ANDAL does not describe difficulties in assembling or analyzing the data.
<b>9 NON TECHNICAL SUMMARY</b>				

QUESTION		RELEVANT (Y/N)	APPROPRIATELY ADDRESSED (Y/N)	COMMENT
9.1	<p>Does the summary contain:</p> <ul style="list-style-type: none"> <li>• brief description of the project and the environment</li> <li>• an account of the main mitigation measures to be undertaken by the developer</li> <li>• a description of any remaining</li> </ul>	N		<p>Based on the government of Indonesia regulations, the ANDAL document does not require to have a summary. However the ANDAL itself includes the following information:</p> <ul style="list-style-type: none"> <li>• project description;</li> <li>• baseline data;</li> </ul> <p>The ANDAL does not describe mitigation measures as these should be addressed in a different document which is the RKL-RPL document (Environmental Management and Monitoring Plan).</p>

QUESTION		RELEVANT (Y/N)	APPROPRIATELY ADDRESSED (Y/N)	COMMENT
	residual impacts?			
9.2	Have technical terms, lists of data and detailed explanations of scientific reasoning been avoided in the summary?	N		N/A as no summary is required for the ANDAL document.  The ANDAL include list of tables, figures and appendix.
9.3	Does the non-technical summary present the main findings of the assessment and cover all main issues raised in the information?	N		N/A as no summary is required for the ANDAL document.
9.4	Does the summary include a brief explanation of the overall approach to the assessment?	N		N/A as no summary is required for the ANDAL document.

QUESTION		RELEVANT (Y/N)	APPROPRIATELY ADDRESSED (Y/N)	COMMENT
9.5	Does the summary provide an indication of the confidence which can be placed in the results?	N		N/A as no summary is required for the ANDAL document.  Based on Government of Indonesia regulation on AMDAL development, no requirements for summary and/or explanation on confidence level of the study.
<b>10 GENERAL APPROACH</b>				
<i>Organization of the Information</i>				
10.1	Is the information logically arranged in sections?	Y	Y	The sections were arranged logically in accordance with the structure set out in Ministry of Environment Decree No. KEP-14/MENLH/3/1994 regarding General Guidelines for Developing AMDAL (now the decree is superseded by Ministry of Environmental Regulation No. 16 Year 2012 regarding Guidelines for Developing Environmental Assessment Documents.
10.2	Is the location of the information identified in an index or table of contents?	Y	Y	Table of contents is available.
10.3	When information from external sources has been introduced, has	Y	Y	Specific chapter for referencing sources is provided in the ANDAL document and also referenced in the document.

QUESTION		RELEVANT (Y/N)	APPROPRIATELY ADDRESS ED (Y/N)	COMMENT
	a full reference to the source been included?			
<i>Presentation of Information</i>				
10.4	Has information and analysis been offered to support all conclusions drawn?	Y	N	Information and analysis were offered for drawn conclusions but not in a consistent manner. Some analysis are quantitative, some analysis are simply concluded as having widespread impacts with limited justification.
10.5	Has information and analysis been presented so as to be comprehensive to the non-specialist; using maps, tables, and graphical material as appropriate?	Y	N	The use of maps, tables and graphical material are used in the ANDAL but not in a manner to assist non-specialists in understanding the context of the impact assessment. The maps provided does not clearly illustrate the assessment of the impacts. There are also missing information that would have been required to be illustrated in the maps.
10.6	Are all the important data and results discussed in an integrated fashion within the information?	Y	Y	Data and assessment results have been discussed as required by Ministry of Environment Decree No. KEP-14/MENLH/3/1994 regarding General Guidelines for Developing AMDAL (now the decree is superseded by Ministry of Environmental Regulation No. 16 Year 2012 regarding Guidelines for Developing Environmental Assessment Documents).  However, there may be gaps against international requirements.

QUESTION		RELEVANT (Y/N)	APPROPRIATELY ADDRESSED (Y/N)	COMMENT
10.7	Has superfluous information (i.e. information not needed for the decision) been avoided?	Y	Y	It is considered that superfluous information have been excluded from the ANDAL document.
10.8	Has the information been presented in a concise form with a consistent terminology and are there logical links between different sections?	Y	Y	Data and assessment results have been presented as required by Ministry of Environment Decree No. KEP-14/MENLH/3/1994 regarding General Guidelines for Developing AMDAL (now the decree is superseded by Ministry of Environmental Regulation No. 16 Year 2012 regarding Guidelines for Developing Environmental Assessment Documents).  However, there may be gaps against international requirements.
10.9	Have prominence and emphasis been given to severe adverse impacts, to substantial environmental benefits, and to controversial issues?	Y	N	Limited information and/or assessment on how the impacts are adverse or not. There is no information on substantial environmental benefits (the ANDAL put more emphasis on social benefits such as creation of work and trade). The ANDAL did not provide information on controversial issues such as land acquisition conflicts and competition over resources (i.e water).

QUESTION		RELEVANT (Y/N)	APPROPRIATELY ADDRESSED (Y/N)	COMMENT
10.10	Is the information objective?	Y	Y	The information presented in the ANDAL document is considered to be objective. Lab analysis were undertaken at a lab managed by the local provincial environmental impact agency (BAPEDALDA).
<b>11 STAKEHOLDER INPUT</b>				
11.1	Has the proponent included a list of persons and groups that were consulted?	Y	Y	The ANDAL included an attachment: table of comments and inputs from key stakeholders as result of evaluation of the ANDAL, and how the writers have incorporated the comments into the ANDAL document. The stakeholders include: regulators, government officials, investment board, environmental impact agency, experts, representative of affected community, transportation agency, land agency, village empowerment representative, public health agency, head of Lalang Village-Medang District, university of North Sumatra academic, Pelindo – state owned port company, and marine fisheries agency.
11.2	Does the report include a description of the process used to consult with stakeholders? Was the process sufficient?	Y	N	The processes involves a one-time public consultation and two evaluation presentations for the Terms Of Reference, TOR (KA), and ANDAL (& RKL-RPL) documents. The public consultation process should be a continuous process of engaging and consulting the affected community. Although the ANDAL describe the requirement for community development it is unclear how this program is to be conducted through the Project development.
11.3	Has the proponent included a list of concerns identified by stakeholders, and a response	Y	Y	The ANDAL included an attachment: table of comments and inputs from key stakeholders as result of evaluation of the ANDAL, and how the writers of the ANDAL responded and incorporated the comments into the ANDAL document.

QUESTION		RELEVANT (Y/N)	APPROPRIATELY ADDRESSED (Y/N)	COMMENT
	to those concerns?			
11.4	Does the information identify and address the main concerns of the general public and special interest groups (clubs, societies etc.) who may be affected by the project?	Y	Y	<p>The ANDAL included an attachment: table of comments and inputs from key stakeholders as result of evaluation of the ANDAL, and how the writers have incorporated the comments into the ANDAL document. In general, the responses to the concerns of the public are being addressed. However, follow up to verify whether these concerns are actually being carried out (through monitoring activities) cannot be verified as the RKL-RPL document (Environmental Management and Monitoring Plan) was not provided for the review.</p> <p>It seems vulnerable groups such as landless farmers or fishermen and/or indigenous peoples are not involved in the ANDAL process.</p>
11.5	If indigenous communities are affected by the project, were they consulted?	Y	N	The ANDAL document does not provide information on whether indigenous peoples are impacted by the project.
11.6	Does the information take account of the main concerns of the relevant statutory bodies?	Y	Y	The ANDAL included an attachment: table of comments and inputs from key stakeholders as result of evaluation of the ANDAL, and how the writers have incorporated the comments into the ANDAL document. The stakeholders include: regulators, government officials, provincial investment board, provincial environmental impact agency, experts, representative of affected community, provincial transportation agency, provincial land agency, village empowerment representative, provincial public health agency, head of Lalang Village-Medang District, university of North Sumatra academic, Pelindo – state owned port company, and provincial marine fisheries agency.