

環境チェックレポート

- ( 1 ) プロジェクト名  
タンゲーLNG 拡張 ( 第 3 トレイン ) プロジェクト
- ( 2 ) 実施場所  
インドネシア共和国西パプア州ベラウ湾
- ( 3 ) プロジェクト概要  
上流ガス田の追加開発及び天然ガス液化設備の能力増強
- ( 4 ) カテゴリ分類  
カテゴリ 「 A 」
- ( 5 ) カテゴリ分類の根拠  
本事業は、環境ガイドラインに掲げる影響を及ぼしやすいセクター(石油・ガス・化学物質ターミナル)に該当し、影響を及ぼしやすい特性を持ち、影響を受けやすい地域あるいはその近傍に立地するため。
- ( 6 ) 環境許認可  
同国制度に基づき ESIA(環境社会影響評価報告書)が作成され、2014 年 7 月 24 日に同国環境省より付帯条件付きで承認を取得済である。
- ( 7 ) 汚染対策  
大気質、水質、廃棄物、騒音・振動、土壌汚染、地盤沈下、悪臭及び底質に対して適切な措置が講じられている旨、確認されている。
- ( 8 ) 自然環境面  
自然環境面への影響に対して、適切な対策が講じられている旨、確認されている。
- ( 9 ) 社会配慮面  
本事業では、新たな用地取得及び住民移転は発生しない。
- ( 10 ) 適用国際基準  
世界銀行・セーフガードポリシー

( 1 1 ) その他・モニタリング

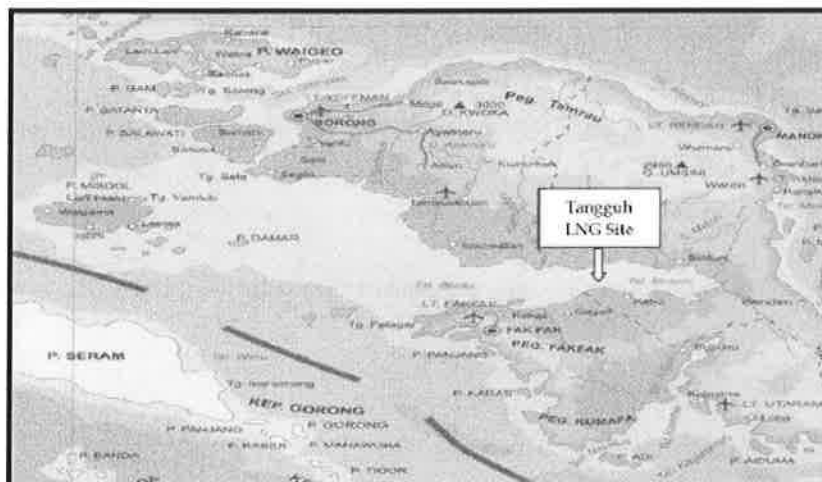
上記の環境レビューを踏まえ、本事業においては、環境関連許認可の取得状況及び付帯条件の有無並びに ESIA 報告書及び環境関連許認可に係る付帯条件の遵守状況についてモニタリングを行う予定。

以 上

## Questions

**Q1.** Please provide the address of the project site.

Address of the project site: Tanah Merah Village, Teluk Bintuni Regency, Papua Barat Province, Indonesia (as shown in figure below)



**Q2.** Please provide brief explanation of the project.

Tangguh LNG is a two train natural gas liquefaction facility that currently operated in Teluk Bintuni, Papua Barat, Indonesia. The existing facility includes associated onshore infrastructure, two offshore platforms, pipelines and twelve wells.

Tangguh LNG plans to expand its operations by developing a single LNG train (Train 3) at the existing Tangguh site. The scope of the expansion will consist of new offshore facilities, including wellhead platforms and pipelines, and onshore development on the existing Tangguh brownfield site. The new onshore facilities will include one additional natural gas liquefaction train of a similar design and capacity to the existing trains, an onshore receiving facility (ORF), a new LNG and condensate loading berth, additional boil off gas (BOG) recovery, utilities, flares and infrastructure to support logistics.

**Q3.** Will JBIC loan be applied to a new project or an executing project? In case of an executing project, please inform of strong claims by stakeholders such as local residents, as well as improvement guidance or cessation orders for construction work / operations, from environmental authorities.

- New Project  Executing Project (with Claim etc.)  
 Executing Project (without Claim etc.)  Others (Please specify )

**Q4.** In case of this project, is it necessary to execute Environmental and Social Impact Assessment (ESIA) based on the laws or regulations of the country where the project is to be implemented? If necessary, please inform the progress of ESIA.

- Required (completed )  Required (under execution or under planning)  
 Not Required  Others (Please specify )

**Q5.** In case that ESIA is already completed, please inform whether ESIA report is already approved based on the environmental and social impact assessment system of the country where the project is to be implemented or not. If ESIA report is already approved, please provide the date and name of authorities

of the approval.

- Approved (without conditions)                       Approved (conditional)  
 Under approval process                                       Others (Please specify \_\_\_\_\_ )

Date of Approval : 24 July 2014

Name of Authorities : Ministry of Environment – Government of Indonesia

**Q6.** If environmental permit(s) other than ESIA is required, please provide the name of required permit(s). Have you obtained required permit(s)?

- Obtained (see below)                                       Required, but not obtained yet (see below)  
 Not required                                                       Others (Please specify \_\_\_\_\_ )

Name(s) of required permit(s):

I. Obtained :

Environmental Permit (24 July 2014)

II. Required, but not obtained yet:

- a. Wastewater Discharge to Sea Permit
- b. Wastewater Discharge to Surface Water Permit
- c. Treated Wastewater Utilization Permit
- d. Temporary Hazardous Waste Storage Permit
- e. Hazardous Waste Treatment Permit
- f. Hazardous Waste Utilization Permit
- g. Drilling Cuttings and Used Mud Dumping Permit
- h. Drilling Cuttings and Used Mud ReInjection Permit

**Q7.** Will the loan be used for the undertaking that cannot specify the project at this stage (e.g. export or lease of machinery that has no relation with specific project, or Two Step Loan that cannot specify the project at the time of loan agreement)?

(Yes / No)

If you answered “Yes”, it is not necessary to reply to the following questions.

If you answered “No”, please reply to the following questions.

**Q8.** Are there any environmentally sensitive area shown below in and around project site?

(Yes / No)

If you answered “Yes”, please select applicable items by marking, and reply to following questions.

If you answered “No”, please reply to questions 9 and after.

- (1) National parks, protected areas designated by government (coastal areas, wetlands, habitats of minorities or indigenous populations, heritage sites, etc.)

The nearest national park/protected areas around Tangguh site is Cagar Alam Teluk Bintuni which located ±80km from Tangguh site area, which was designated as national park according to Decree of Minister of Agriculture No. 820/Kpts/UM/11/1982 and Decree of Minister of Forestry No. 891/Kpts-II/1999.

- (2) Ecologically critical forests areas (including primeval forests and tropical natural forests)  
 (3) Ecologically critical natural habitats (including coral reefs, mangrove, tidal flats, etc.)  
 (4) Habitats of endangered species of which protection is required under local laws and international

agreements.

- (5) Areas that have risks of large scale increase in soil salinity or soil erosion
- (6) Desertification areas
- (7) Areas with special values from archaeological, historical and/or cultural viewpoints
- (8) Habitats of minorities, indigenous populations, nomadic people with traditional lifestyle (including areas used for cultural and/or spiritual purposes), or areas with special social value

**Q9.** Does the project involve following characteristics?

(Yes / No)

If you answered "Yes", please describe the scale of applicable characteristics, and reply to the questions 10 and after.

If you answered "No", please reply to questions 11 and after.

(1) Involuntary resettlement and/or loss of means of livelihood

There is no involuntary resettlement that planned to be conducted as part of the project. However, loss of means of livelihood is expected to occur as an impact of the project activity. The most affected community is expected to be fishermen from north shore and south shore.

(Number of affected people: more than 500 people; ±370 from north shore and ±170 from south shore).

(2) Pumping of groundwater  
(Scale: \_\_\_\_\_ m<sup>3</sup>/year)

(3) Land reclamation, development and/or clearing

Land clearing activity will be done within Tangguh LNG site property fence.

(Scale: maximum land clearing is 500Ha; with max. 490Ha of lowland forest area and max. 10Ha of mangrove area)

(4) Deforestation  
(Scale: \_\_\_\_\_ ha)

**Q10.** Under the environmental and social impact assessment system of the country where the project is to be implemented, do the applicable characteristics from (1) – (4) above and their scale serve as basis for executing an ESIA for the project?

- They do \_\_\_\_\_
- They do not
- Others (Please specify \_\_\_\_\_ )

**Q11.** Will JBIC share in the project be equal or less than 5% of the total project cost, or the total amount of JBIC loan equal or less than SDR 10 million? (In the case of additional support for a past project, this shall be the accumulated total amount)

(Yes / No)

If you answered "Yes", it is not necessary to reply to the following questions.

If you answered "No", please reply to questions 12 and after.

**Q12.** Does the project belong to either of the sectors that impacts on the environment and the society is deemed immaterial or is not anticipated under normal conditions (e.g. maintenance of the existing facilities,

non-expansive renovation project, acquisition of rights and interests without additional capital investment)?

(Yes / No)

If you answered "Yes", it is not necessary to reply to following questions.  
If you answered "No", please reply to the questions 13 and after.

**Q13.** Does the project belong to the following sectors?

(Yes / No)

If you answered "Yes", please specify the sector by marking, and reply to questions 14 and after.  
If you answered "No", it is not necessary to reply to the following questions.

- (1) Mining
- (2) Oil and natural gas development
- (3) Pipelines
- (4) Iron and steel (projects that include large furnaces)
- (5) Non-ferrous metals smelting and refining
- (6) Petrochemicals (manufacture of raw materials; including complexes)
- (7) Petroleum refining
- (8) Oil, gas and chemical terminals
- (9) Paper and pulp
- (10) Cement plants (including a greenfield quarry)
- (11) Manufacture and transport of toxic or poisonous substances regulated by international treaties, etc.
- (12) Thermal power
- (13) Nuclear power
- (14) Hydropower, dams and reservoirs
- (15) Power transmission and distribution lines involving large-scale involuntary resettlement, large-scale logging or submarine electrical cables
- (16) Roads, railways and bridges
- (17) Airports
- (18) Ports and harbors
- (19) Sewage and wastewater treatment having sensitive characteristics or located in sensitive areas or their vicinity
- (20) Waste management and disposal
- (21) Agriculture involving large-scale land-clearing or irrigation
- (22) Forestry
- (23) Tourism (construction of hotels, etc.)

**Q14.** Please provide information on the scale of the project (project area, area of plants and buildings, production capacity, amounts of power generation, etc.) Further, please explain whether an execution of ESIA is required on account of the large scale of the project in the country where the project is implemented.

Scale of the project:

The Train 3 Expansion onshore facilities will utilize the existing 3,600ha Tangguh LNG site on the south shore of Bintuni Bay, Papua Barat.

Facilities include:

- One additional natural gas liquefaction train (Train 3) with capacity of 3.8 mtpa
- Steam turbine generators (STGs) provide electricity (3 x 26 MWe).
- A new integrated onshore receiving facility (ORF)
- A new Integrated Condensate Stabilization Unit

- New marine loading facilities for LNG and HC condensate, including new Boil Off Gas recovery compressor integrated with existing system.
- Hydrocarbon disposal, waste water treatment and utilities (steam and power generation, fuel gas, air and nitrogen, water systems, and waste water disposal)
- Integrated waste management facility
- Infrastructure to support operations and logistics
- Accommodation for the associated increase in the temporary workforce (during construction) and permanent workforce (during operation)

According to Decree of Minister of Environment No. 05 of 2012 regarding Type of Business/Activity Plan that Require an Environmental Impact Assessment (AMDAL); LNG plant establishment with production scale of  $\geq 550$  MMSCFD (equivalent to  $\geq 3.8$  mtpa) is categorized as activity that requires an Environmental Impact Assessment (AMDAL).