Project Document (PD)

For the development of Environmental Impact Assessment (EIA) for Pipeline component of Timor-Leste LNG project "Sunrise – Beaço Pipeline"

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1. Contact details of the proponent:

Name of Company : TIMOR GAP, E.P.
Address : Level 3, Timor Plaza, Suite 301-314
Rua Presidente Nicolau Lobato, Comoro
Dili, Timor-Leste
T. +670 331 0953 F. +670 331 0952
www.timorgap.com

Contact Person : Francisco Monteiro
Title : President and CEO of TIMOR GAP, E.P.
Telephone : (+670) 331 0953, Ext: 103
Mobile : (+670) 7714 7083
Email : francisco.monteiroa@timorgap.com

Contact person : Domingos Lequi Siga M.
Title : Director of Gas Business Unit
Telephone : (+670) 331 0953, Ext: 187
Mobile : (+670) 7714 7087
Email : domingos.lequisiga@timorgap.com

Contact Person : Leonel Hornai
Title : Manager of QHSE
Telephone : (+670) 331 0953, Ext: 165
Mobile : (+670) 77193315
Email : leonel.hornai@timorgap.com

Contact Person : Palmira Vilanova
Title : Business Support Coordinator
Telephone : (+670) 331 0953, Ext:141
Mobile : (+670) 7780 4256
Email : palmira.vilanova@timorgap.com

2. Location and scale of the project

The Government of Timor-Leste ("GTL") is currently negotiating with and in discussion with relevant stakeholders to bring gas from the Greater Sunrise field via a pipeline to a new Liquefied Natural Gas (LNG) Plant onshore Timor-Leste. The project will involve installing an approximately 231 km pipeline from the field to Beaço on the south coast of Timor-Leste. Approximately 200m from the shoreline (landing point) will be the inlet facility, which include pig receiver, slug catcher, metering, etc. However, the scope of this EIA only covers up to the shoreline (landing point).

The pipeline from Greater Sunrise field to onshore Timor-Leste will cross Timor through with the maximum water depth -3,022 m below sea level in the region of interest. This large water depth and the need to mitigate geohazards associated with the trough make this a world-class pipeline project with unique challenges.

2.1. Maps and plans of project location

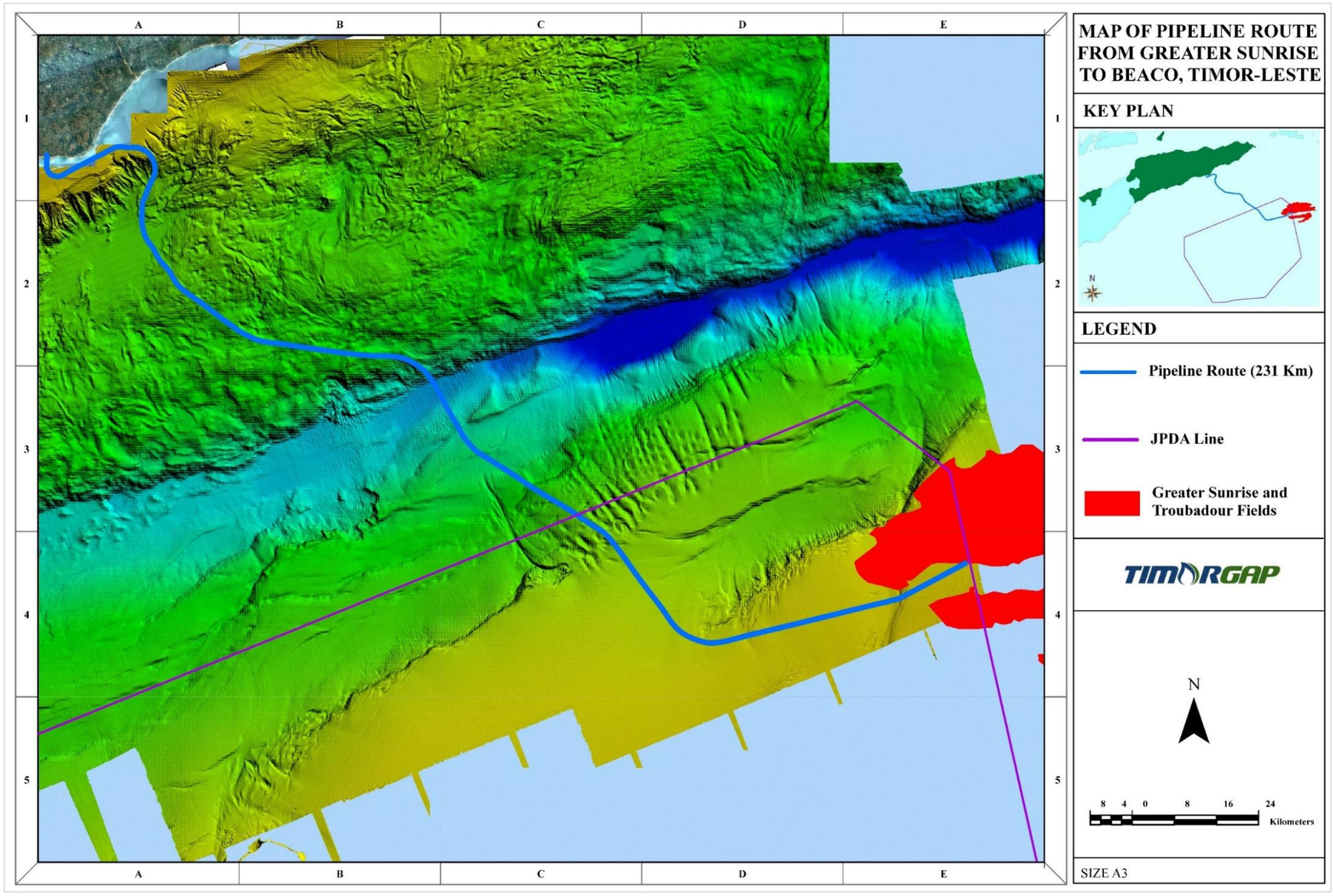

Figure 1- Map of the Sunrise-Beaço pipeline project

2.2. GPS coordinates of the project location

Fixed Point	Co-ordinates in Local Datum WGS 84	
	Easting (m)	Northing (m)
Greater Sunrise (Start)	390,761.46	8,932,666.67
Beaço Landfall (End)	215,984.14	9,010,081.16

Table 1- Pipeline fixed-points coordinates

The detail of the pipeline route coordinates is provided in the **Appendix 1.**

2.3. Maps or plans of appropriate scale of the proposed project location

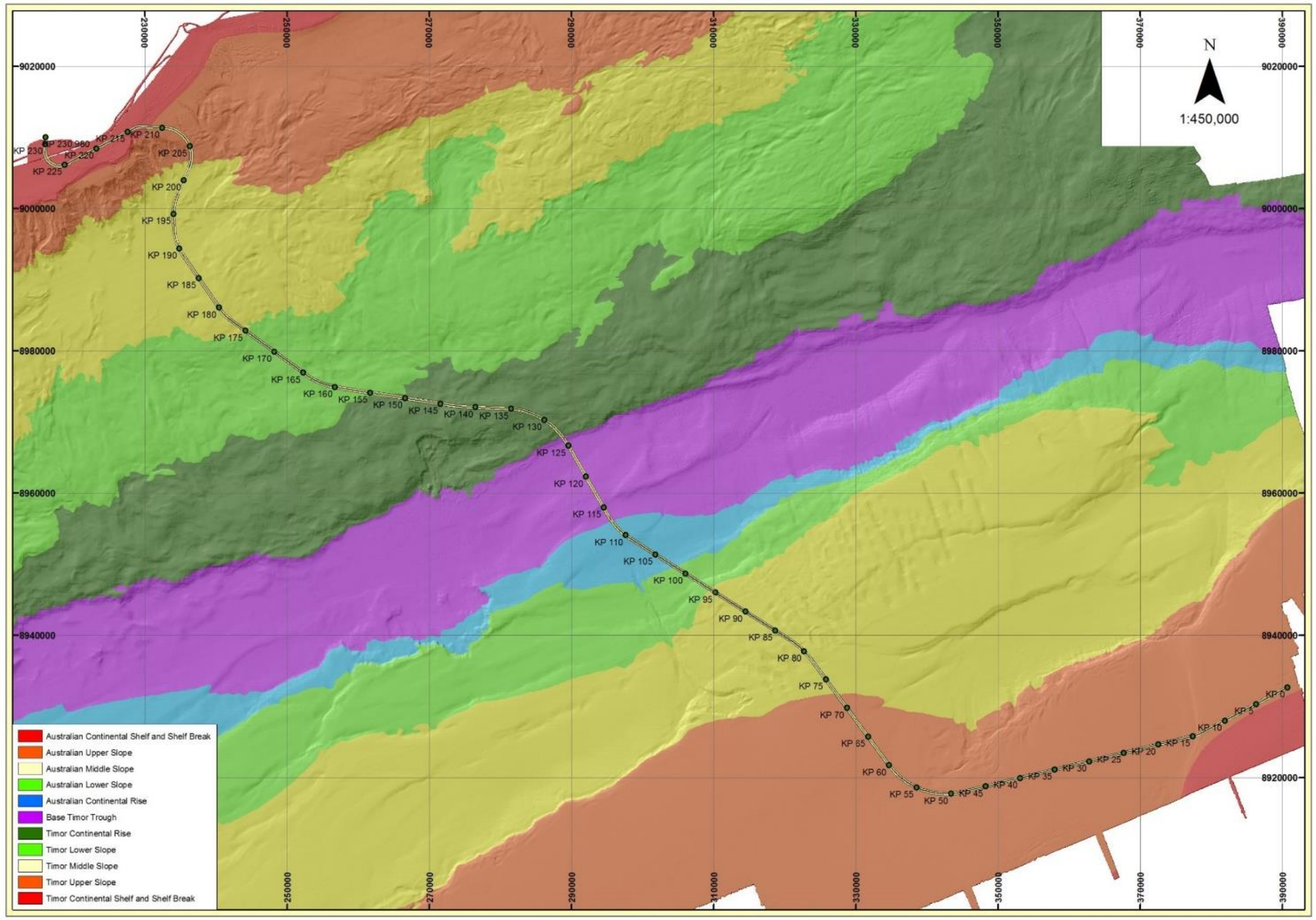

Figure 2 - Pipeline route

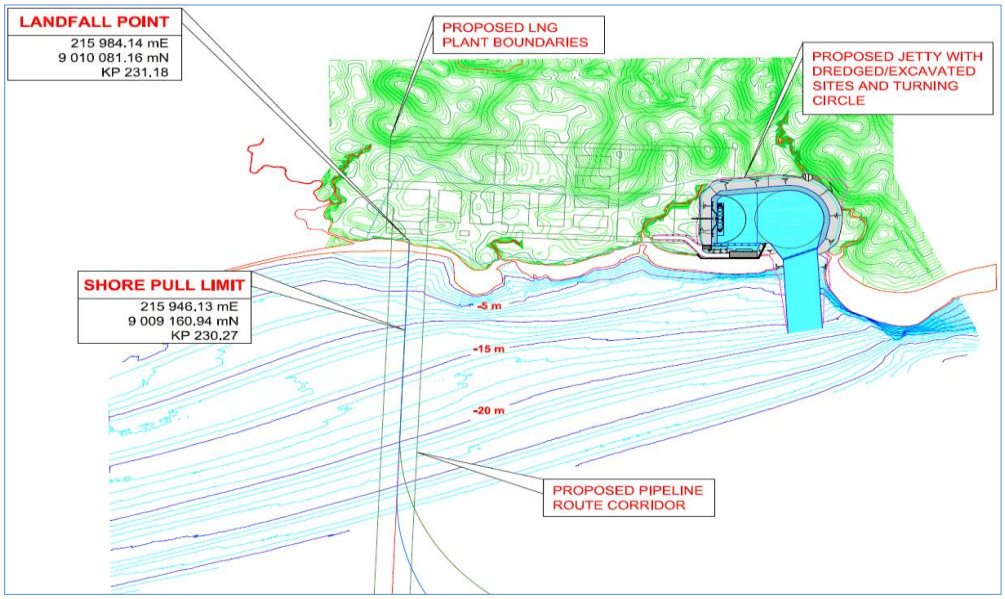

Figure 3 - Pipeline nearshore section

2.3.1. Watercourse and water bodies

There is no watercourse and water bodies exist in offshore area of the project location. For the landing point area in Beaço will be described in the Project Document for LNG plant, Marine facility and new towns.

2.3.2. Linear and transport components

The offshore pipeline location does not have major linear and transport components. It has only a minor or infrequent commercial fishing and shipping activities going through along or crossing over the pipeline route.

2.3.3. Other features of existing or past land use

There is no other feature of existing or past pipeline construction or a plant in the offshore of designated proposed project location. For any existing or past land use in onshore area will be provided in the project document for LNG plant, Marine Facility and new towns.

2.3.4. Community lands and nearby communities

Since the landing point of the pipeline is within the area of the LNG complex in Beaço, the information of this section is included in the project document for LNG plant, Marine facility and new towns.

2.3.5. National parks, protected areas or other environmental sensitive areas

The pipeline is planned to be installed on the subsea with maximum water depth reaches about 3,022 meter below sea level and the area has been identified to be not within any protected or environmental sensitive areas (Detail Marine Survey, DMS study, 2013). For any identification of national parks, protected or environmental sensitive areas onshore will be described in the Project Document for LNG plant, Marine facility and new towns.

2.3.6. Fisheries and fishing areas

Fishing activities in the area along the pipeline route is considered to have minor or small-scale commercial fishing activities. Thus, there is possibility that the big scale or commercial fishing activities in the area will have to be diverted away from or cross over the pipeline route particularly along the routes within the shallow water (<500m below sea level).

2.3.7. Hunting areas

This section is irrelevant to the offshore location and condition, thus will not be covered in this project document for pipeline component.

2.3.8. Photographs of the proposed project location

Figure 4 - Proposed Landfall Point and Shore Approach at Beaço

2.3.9. Description of the legal ownership of the land to be used for the proposed project

This section is irrelevant to the offshore location and condition, thus will not be covered in this project document for pipeline component.

3. District and Village

The location of the pipeline is in the offshore from Greater Sunrise to the landing point near Beaço, Maluru Village.

4. Plans and Technical Drawing of the Proposed Project

The plot for technical drawing has been completed during the FEED studies. The technical drawing covers the pipeline route section, slope and bathymetric condition. The technical drawing is provided in the **Appendix 2** within this document.

5. Feasibility Study of the proposed project

In 2008, Government of Timor-Leste through its then *Secretario de Estado dos Recursos Naturais (SERN)* and Petronas of Malaysia commissioned a pre-feasibility study to analyze the potential of LNG project development in Timor-Leste, which included an assessment of Pipeline development in the offshore with the water depth of -3,200 m below sea level. The study concluded that technically the pipeline construction with the distance of about 222 km between Greater Sunrise and Beaço, and with water depth of 3,200 m is viable. Subsequently, JP Kenny – one of world most respected engineering companies for the deep-water pipeline engineering – completed the detailed feasibility study for the Sunrise-Beaço pipeline in 2010. The outcome of the latter showed that laying/constructing the gas pipeline on the seabed from Sunrise gas field to Beaço is technically feasible and commercially viable. The documents/reports of both pre-feasibility and feasibility study can be made available upon request.

Following the feasibility statements from the above studies, the project was further studied at the next level per industry standard, i.e. Pre-Front End Engineering Design (Pre-FEED). Not only the outcome of Pre-FEED study indicated that the project is viable technically and commercially but also recommended for a Detailed Marine Survey (DMS) to obtain higher resolution data related to geophysical and geological along the 200m corridor of the pipeline routes.

The FEED studies concluded that a 24-inch pipe diameter is technically viable to be installed on the seabed from Greater Sunrise gas field to Beaço by crossing Timor trough with maximum water depth of 3,022m . The pipeline will be laid using a J-lay vessel for offshore deep water section (>500m) and an S-lay vessel for shallow water (<500m) including nearshore section with the new generation type of vessel.

In addition to these studies, a strategic environmental impact assessment (SEIA) had also been conducted in Beaço. The SEIA provided data results and analysis in meteorology, land use and visual amenity, topography, geology, air quality, noise, hydrology, drainage and river

water quality, hydrogeology, terrestrial biodiversity, marine ecology, land transport, waste management, social and economic values. As the SEIA is a preliminary stage of EIA study, a further study prior to the detailed design will be carried out and any changes or findings will be made available.

6. Land and water use

Approximately 200m from the shoreline (landing point) will be the inlet facility, which include pig receiver, slug catcher, metering, etc. However, the scope of this EIA only covers up to the shoreline (landing point).

Thus, this section is not applicable to the offshore location and condition and will not be covered in this project document.

7. Existing Biophysical Component

7.1. Biophysical

7.1.1 Existing Climate & Meteorology

Timor-Leste has two annual seasons and three climatic zones, which are the result of monsoon activity. The two distinct seasons are the Northwest Monsoon (wet season) from November to May and the Southeast Monsoon (dry season) from April to September. The brief transitional periods in which the season changes occur within April and May. Therefore, either wet or dry season can occur in April and either wet or dry season can also occur in May.

Seawater temperatures in the Timor Sea region ranges from 25ºC to 31ºC at the surface and 22ºC to 25ºC below 150 m (OMV, 2003) and down to 10ºC at the seafloor (Heyward et al., 1997). The majority of cyclones occur in the region between January and March, with the most severe cyclones most often occurring in the months of December to April (SKM, 2001). The weather study for offshore and nearshore section should be conducted to define the

weather condition that might be going to affect the project as the nature of weather characteristic between these two regions are likely different. Offshore weather condition is likely to be affected by the tropical cyclones around the region, however the impact is less significant compared to the nearshore region because the remotely force wave energy in the shallow section is more likely to be an issue

7.1.2 Existing Air Quality

The air quality in the Timor-Leste region is generally good. Across the study area, particularly around Viqueque, most pollutant sources from the village of Beaço are primarily associated with vegetation burning for agricultural purposes and the burning of refuse.

7.1.3 Existing Water Quality

Onshore surface water systems and ground water are outside the project area and will not be impacted by the offshore Sunrise-Beaço pipeline development.

7.1.4 Existing Soil Quality

There is no applicable data for the existing soil quality due to the proposed project area exits from scope of this study.

7.1.5 Existing Noise & Vibration

The main existing sources of anthropogenic (i.e., caused by human activity) noise in the project area are talking, the play of children, use of power tools, music and electrical generators. Non-anthropogenic sources include the weather (wind, thunder and rain) and animals such as chickens and dogs also contribute to the current noise environment. However, there is no information recorded of the existing noise and vibration surrounding the

proposed area, because the area is in the offshore. The sources of the noise and vibration can be raised from the anthropogenic sound (i.e. vessel movement, ambient sea sound, undersea earthquake, etc.) That information will be acquired when the details EIA study carried out.

7.1.6 Existing Marine & Aquatic Ecology

Within the Beaço study area, algae, coral and invertebrates made up the biotic benthic community, which were primarily associated with hard substrate. The fringing reef identified adjacent to the Beaço study area is typical of the fringing reef systems found in South East Asia (Burke et al. 2002). The reef generally consisted of a low diversity reef flat which falls steeply into deep water. The greatest coral diversity was generally found within 5 to 8 m of the surface.

7.1.7 Existing Topography & Geology

The offshore pipeline ends at the Beaço beach coastal plain. Inland, the area has a few low hills which occupy the central and northern parts of the area. These low hills are gentle to moderate gradients. In contrast Viqueque is draped over a prominent set of ridges dissected by incised valleys. Gradients in this area range from moderate to steep with many recent and palaeolandslips in evidence (WorleyParsons 2011).

From gravity core data collected along the proposed pipeline route, shallow sediments at depths of <140 m LAT (around the first 18 km of the proposed pipeline route along the Timor Shelf) mainly comprise very soft to soft silty clay with sand, coral and shell fragments. Deeper sediments at >140 m LAT (the remaining pipeline route of approximately 231 km) comprise mostly of very soft to soft clay with sand (J.P Kenny 2013b).

7.2. Socio Economic

According to the surveys taken by WorleyParsons in 2011, the field surveys determine the socio-economic baseline for the proposed Beaço Plant.

7.2.1. Health Component

Malaria, tuberculosis, diarrhea and leprosy are the most common diseases. Malnutrition is also an issue, including respiratory related illnesses in older people due to smoking habits. Insufficient supply of medical equipment; medicine; available staff (or locally based health professionals); and lack of a permanent clinic are the main challenges to provide good health services.

7.2.2. Economic Component

Sources of income usually come from activities such as growing corn, fishing, livestock herding and local business. Unfortunately, there was no record of secondary schools, hospitals, police stations or waste dumps at the time of the survey (2011). The people living there also have housing type that are usually consists of traditional dwellings and a smaller number of modern structures.

7.2.3. Cultural Heritage

All known cultural heritage sites such as the sacred sites, buildings with archaeological value are land-based and located outside the proposed offshore pipeline route area. Therefore this section is also not applicable.

7.2.4. Land Use and Resources

The project area does not include land use and resources, therefore this section is also not applicable.

7.2.5. Archeological and Sacred Sites

Both archeological and sacred sites common on land, therefore these are not part of the offshore pipeline area. Hence, this section will not be covered in this PD.

8. Environmental Impact

8.1 Biophysical impact

This section will describe the existing environmental condition in terms of biological and physical forms that may or may not be affected by the proposed project development. The following are all aspects of environment that required to be studied and analyzed prior to the development of the proposed project in the designated project location. The format of this project document and its content of requirements are in accordance with the given format by the Environmental Authority.

8.1.1 Climate and Meteorology

Timor-Leste has two annual seasons and three climatic zones, which are the result of monsoon activity. The two distinct seasons are the Northwest Monsoon (wet season) from November to May and the Southeast Monsoon (dry season) from April to September. The brief transitional periods in which the season changes occur within April and May. Therefore, either wet or dry season can occur in April and either wet or dry season can also occur in May.

Seawater temperatures in the Timor Sea region ranges from 25ºC to 31ºC at the surface and 22ºC to 25ºC below 150 m (OMV, 2003) and down to 10ºC at the seafloor (Heyward et al., 1997). The majority of cyclones occur in the region between January and March, with the most severe cyclones most often occurring in the months of December to April (SKM, 2001). The weather study for offshore and nearshore section should be conducted to define the weather condition that might be going to affect the project as the nature of weather characteristic between these two regions are likely different. Offshore weather condition is

likely to be affected by the tropical cyclones around the region, however the impact is less significant compared to the nearshore region because the remotely force wave energy in the shallow section is more likely to be an issue.

In addition, a soliton was identified in Timor Sea based on the previous study. The Soliton is defined as a condition of large internal wave that can cause a sudden increase in current speed and rapid change in current direction. A complete study of soliton has been conducted in the project location and the information of the soliton study can be provided upon request (Appendix 5, Greater Sunrise to Timor-Leste Pipeline Metocean Study, Section 5).

8.1.2 Air Quality

During pipeline installation and construction in the offshore there is no specific air pollution emitted. Air pollutants such as carbon dioxide will be emitted mainly from the engines of vessels used in the offshore construction activities. However, the volume of carbon dioxide from vessels is to be assessed to determine the total emission and the consequences to the air quality. A study of air quality at nearshore and onshore area need to be conducted especially during onshore construction activities such as site preparation works, site clearance and earthworks, trenching, leveling, vehicle movement and transportation of material to the site.

8.1.3 Water Quality

During pipeline installation and construction, one of the main impacts on water quality is dispersion sediment that can cause a short-term increase in water turbidity, which this can be expected to last in few days. A study of the onshore and nearshore water quality should be conducted specifically to assess the water generated by trenching activities, since it may be having high-suspended solids concentration due to turbidity.

8.1.4 Soil Quality

The seabed intervention works, anchor handling and span rectification will cause some depressions and elevations on the seabed and some sedimentation of re-suspended sediments. The only permanent impact on seabed during operation is the occupation of seabed by the pipeline. At nearshore, the soil contamination can be generated from oil machinery leakage, dredging and trenching. A soil contamination scenario will be conducted to establish the potential soil contamination during pipeline installation, hydro testing, operation and maintenance. Data and information of the soil studies will be provided as attachment in the report.

8.1.5 Noise and Vibration

Since there has not been a study conducted in offshore and nearshore regarding the noise and vibration that could be generated during the pipeline installation, a study of the noise and vibration of pipeline installation will be conducted. An expert will carry out desktop study of similar case and the results will be presented in order to provide a sense and guidelines on the impacts and techniques of the pipeline installation done in offshore.

8.1.6 Marine and Aquatic Ecology

During pipeline placement or laying of pipeline on seabed can cause impact on bottom dwelling fauna (benthos). Sediment spreading and subsequent sedimentation due to construction will have some impact on the bottom fauna adjacent to the pipeline. Specialist in the marine environment including the flora, fauna and marine microorganism will conduct a study of the aquatic environment or benthic animals in the deep water or along the pipeline routes that might be affected by the proposed project development. The marine study will identify the key marine plants and animals that are currently listed and protected under the national environmental law of Timor-Leste. The marine environment study will also cover

the mapping of mangroves habitats, marine mega fauna, commercial fish community, exotic turtles, seagrass and benthic animals.

8.1.7 Topographical and Geology

The export pipeline route cross the area consists of the Timor Continental Shelf and Continental Slope, the Timor Trough, and the Australian Continental Slope on the northern edge of the Australian Continental Shelf. In general, the south east of the pipeline route is characterized by a broad, plateau region (Australian Continental Shelf) that extends north-west for approximately 20 km where it reaches a shelf break that marks the beginning of the north westerly dipping Australian Continental Slope. The slope gradient is low (approximately 5°), however locally it can be as high as 40° at fault escarpments. The slope gradient then shallows to less than 2° at the base of the Timor Trough. A sharp rise in seafloor gradient marks the transition to the Timor Continental Rise which progresses into an area of prominent irregular seafloor bathymetry, including mounded seafloor and broad seafloor depressions. Locally this irregular seafloor transitions into an area of hummocky seafloor (the Timor Continental Slope) before a relatively sharp shelf break locally incised by steep canyons. The Timor Continental Shelf then extends for approximately 5 km from the shelf break to the south coast of Timor-Leste (Geohazard & Geotechnical Report of Sunrise-Beaço Pipeline, 2013)

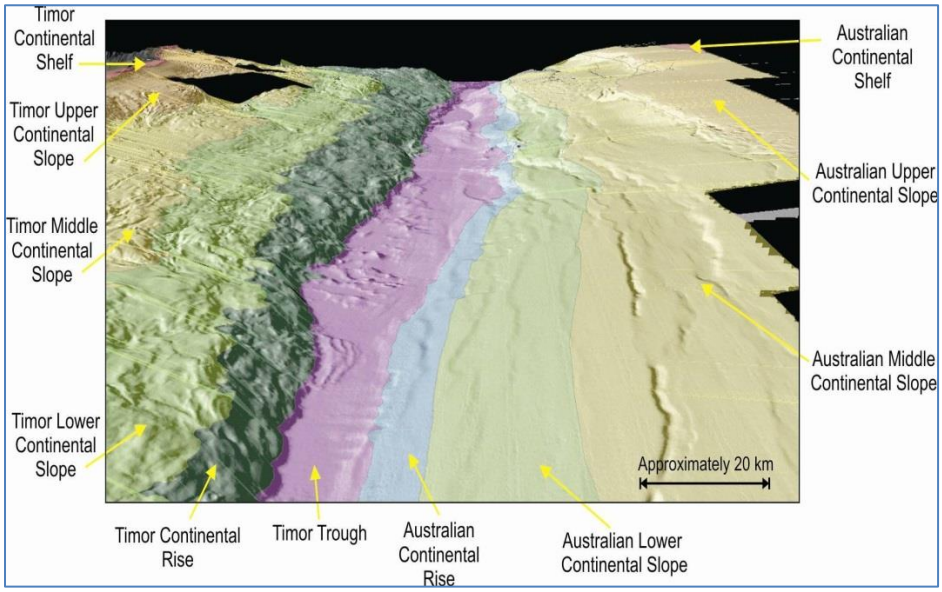

Figure 5 Geological map of Timor Trough

8.1.8 Cross border impacts

To identify any significant cross border environmental impacts, an adequate buffer zone would be encompassed from project location. As pipeline installation will cross JPDA area and near Australian administered water border, there is a potential cross border environment impact such as Noise and Vibration, which will be generated during pipeline installation. Pipeline is designed to withstand external and internal pressure that can cause pipe leak during installation, hydrotesting and operation. Pipeline leak during operation has a potential impact on the cross border environment when the high-pressure gas is released into the atmosphere.

8.1.9 Global impact

The proposed project would emit carbon dioxide (CO_2) during construction period. This emission would be emitted directly through fuel use in construction vessel and equipment, vehicle and from shore pull activities; and there is also indirect emission from electricity usage, such as diesel from generator and other equipment that use fuel for generating energy.

There has been no estimation performed to measure carbon dioxide level released into the surrounding proposed project area or beyond the border, thus a desktop study will be carried out to identify the approximate amount of the CO_2 released during the construction phase.

8.2 Socio Economic impact

The socio-economic impact of the proposed project is beyond the immediate environmental impacts. This impact can affect not only the Beaço community, but also the Viqueque municipality and even the whole country could be benefited from the project development. These socio-economic impacts include, creating jobs and business opportunities, improving community welfares, infrastructure and transportation development, and capacity building.

8.2.1 Health Impacts

The potential community health impacts that may result from the pipeline development especially during construction, include respiratory diseases induced by dust from dredging and shore pull activities. Other health impacts may occur if there is an accidental oil and chemical spill or leakage into the seawater, it can then detriment the marine environment and eventually cause health issues to human through the consumption of fishes, seaweed and other edible marine resources.

8.2.2 Economic impacts

Pipeline being one of the components of Timor-Leste LNG project will contribute to the generation of substantive income to not only the government, but also to the land and property owners as well as the local community of Beaço and Viqueque. Population/community at national level could also be benefited from the project development. Government will get income through taxes – such as income tax, Value Added Tax, Goods & Service Tax – and equity participation. The direct income impacts comprise payments to workers, landowners, local business, government and private investors. This

project is also expected to boost local economy growth due to the increased circulation of money related to salary payments, and the improvement of existing infrastructure (Petronas, 2008). These are the direct and indirect impacts of the project on the economic sector to the community at the local and national level. Further details of economic impact will be described in the EIA report.

8.2.3 Cultural Heritage

Most of the identified cultural heritage areas are to be found on land. As the project area is located offshore, this section will not be applicable.

8.2.4 Land Use and Resources

Since most of the project area is located offshore, therefore this section is not applicable.

8.2.5 Archeological and Sacred Sites

Archeological and sacred sites are mostly located on land. Thus this section will also not be applicable.

9. Public Consultation

Public consultation (PC) is conducted to obtain constructive opinion or comments from the affected community, relevant stakeholders or public in general. The PC is carried out through community meetings in which information of the development of subsea gas pipeline project from greater sunrise to Beaço is presented through these meetings below:

- The first initial engagement was conducted in Beaço in the years of 2008 and 2009, which involved the Beaço community, local authority, and community elders. The objective of the

initial engagement is to introduce the project plans, features and the changes or impacts of the proposed project development on the community and its village. This is most importantly to obtain general insights from the community of whether or not they are receptive to the proposed area to be used as the landing point of gas pipeline from Offshore Timor Sea and for the development of LNG industry.

- The second initial meeting was then conducted on 21 January 2013. In the second meeting, TIMOR GAP brought in information of the project description and its components, such as pipeline, LNG plant, marine facility and new towns; also the study results that have been conducted in the area. The studies conducted include Pre-FEED study for pipeline and FEED study results for Marine Facility.
- The third meeting was conducted in February 2016. The objective of this engagement is to inform the community regarding the first phase of the project development, which is preliminary land identification and mapping of the new towns area. In this engagement, the affected communities were in agreement with the proposed activities and they were also directly involved in the process of land identification. The next public or local community engagement will be held upon the process of EIA study for obtaining the environmental license for the proposed project location.

Key comments

Based on the feedbacks from Beaço community and local leaders for the Timor-Leste LNG project during consultation process, Beaço community agreed to hand over their land and other property to the Government. However, community suggested to the government to have mechanism of relocation for cultural heritage, farming and fishing impacts to the community during construction phase, and to prioritize local people for the job opportunity particularly in the construction phase. In addition, community suggested to the Government to provide scholarship as capacity building for students who want to continue their study

especially related to the oil and Gas Industry and learn English course in Beaço in order to enable them and to prepare for their participation before project commences.

Figure 6 - Consultation meeting with Beaço community and community leaders

Further Consultation

At the next stage for the implementation of the Pipeline project, there would be an ongoing consultation with the affected community and the relevant stakeholders or public. The objective for having the ongoing consultation is to ensure that the project plans and programs are well aware and comprehended by the community, stakeholders and the public in general to achieve the best result of the overall goal of the proposed project.

10. Consultation with other authority

There has been an ongoing consultation with the Environmental Authority of Timor-Leste, or National Directorate of Pollution Control and Environmental Impact (NDPCEI) under the Ministry of Commerce Industry and Ambiente (MCIA) to process the environmental license for the four components of the Timor-Leste LNG project in Beaço, Viqueque.

11. The Proposal for classification of the proposed project

In accordance with the Environmental Licensing Law Article 4 and Annexes 1 and 2 of the law, TIMOR GAP, E.P. proposes the overall component (or the Pipeline Component) of the TLNG project as category A project. This is due to the nature and characteristic of the project, which indicates that the components of the project have a tendency to create a detrimental effect on the environment.

12. Executive Summary

TIMOR GAP, E.P. is the proponent for the environmental license for offshore Pipeline from Greater Sunrise to the landing point near Beaço, Maluru Village. The pipeline project will involve installing an approximately 231 km pipeline from the field to the south coast of Timor-Leste. The pipeline from Greater Sunrise field to onshore Timor-Leste will cross Timor trough with the maximum water depth of -3,022 m below sea level in the region of interest. Greater Sunrise is an offshore area within the Joint Petroleum Development Area (JPDA) which is jointly administered by Australia and Timor-Leste.

There have been studies and analysis conducted to identify the viability of the project development commercially and technically. In accordance to the outcome of detailed feasibility study (for Sunrise-Beaço pipeline) completed in 2010 by JP-Kenny, one of world most respected engineering companies for the deep-water pipeline engineering, it showed that laying/constructing the gas pipeline on the seabed from Sunrise gas field to Beaço is technically feasible and commercially viable. This statement is further supported by Pre-

Front End Engineering Design (Pre-FEED) and FEED studies that showed not only the project is technically feasible but also commercially viable. This was supported by a Detailed Marine Survey (DMS) to obtain higher resolution data related to geophysical and geological along the 200m corridor of the pipeline routes. The FEED studies concluded that a 24-inch pipe diameter is technically viable to be installed on the seabed from Greater Sunrise gas field to Beaço by crossing Timor trough with maximum water depth of 3,022m. The pipeline will be laid using a J-lay vessel for offshore deep water section (>500m) and an S-lay vessel for shallow water (<500m) including nearshore section with the new generation type of vessel.

It is further identified that the proposed area of the project is not identified to be within any protected or other environmental sensitive areas. This project document describes the baseline information on the environmental impact in terms of biology and physical (biophysical) forms of the proposed project development that might or might not have on the designated project location. The biophysical description of the existing environment status include climate and meteorology, air, water and soil quality, noise, vibration, marine and aquatic ecology, topography and geology, socio-economic, and health impacts.

In addition to the studies of the existing environmental condition in the project location, several public consultation as a mean for community engagement for sharing information regarding specification, impacts and benefits of the project were conducted with the community in the project location, Beaço. The initial community meeting was carried out in 2008 and 2009, and the very recent one was conducted in February 2016. The objective of the latter engagement is to inform the community regarding the first phase of the project development, which is preliminary land identification and mapping of the new towns area. In this engagement, the affected communities were in agreement with the proposed activities. Although these meetings were for the whole Timor-Leste LNG Project, offshore pipeline has always been one of main agenda presented and discussed. The next public or local

community engagement will be held during the process of EIA study for obtaining the environmental license for the proposed project location.

In the process of obtaining the environmental license, TIMOR GAP, E.P. has been having ongoing consultation with the authority to identify and appropriately process the environmental license for the proposed project, and this includes the preparation and submission of this project document. In regards to environmental license procedure as established under the Environmental Licensing Law Article 4 and Annexes 1 and 2 of the law, TIMOR GAP, E.P. proposes the project as category A project. This is due to the nature and characteristic of the project, which indicates that the components of the project have a tendency to create a detrimental effect on the environment if not properly managed.

References

1. Petronas and Government of Timor-Leste (2008), Timor-Leste LNG Project Pre-Feasibility Study Report.
2. JP Kenny (2012). FEED and DMS for offshore pipeline from greater sunrise to Timor-Leste; Pipeline Design Basis Report.
3. JP Kenny (2012). FEED and DMS for offshore pipeline from greater sunrise to Timor-Leste; Geohazards and Geotechnical Report (14-0226-01-P-03-529_0).
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5. JP Kenny (2012). FEED and DMS for offshore pipeline from greater sunrise to Timor-Leste; fishing interaction report (14-0226-01-P-03-513_0).
6. JP Kenny Doc. No. 14-0176-01-P-03-001, "Conceptual Study & Cost Estimate Subsea Pipeline from Greater Sunrise to Timor Leste" Rev C, 2010.
7. JP Kenny (2012). FEED and DMS for offshore pipeline from greater sunrise to Timor-Leste; allowable free span analysis (14-0226-01-P-03-516_00).

Appendix 1 – Principal Route Co-Ordinates

Appendix 2 – Technical Drawing

Appendix 3 - Pre-Feasibility Study Report with Petronas

Appendix 4 - Feasibility Study Report with JP Kenny

Appendix 5 - Greater Sunrise to Timor-Leste Pipeline Metocean Study

Appendix 6 - FEED Geohazard and Geotechnical Report

Appendix 7 - Minutes of Meeting and Attendance List

Appendix 8 - Minutes of Meetings and Attendance List with Relevant Authorities