

Papua LNG Project

Human Rights Impact Assessment Summary of Key Findings

ExxonMobil PNG Antelope Limited and TotalEnergies EP PNG Limited



Evava village, Upstream project area (photo credit Tetra Tech Coffey)

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1. INTRODUCTION

The Papua LNG Project involves producing and processing gas and condensate from the Elk and Antelope Fields in the Gulf Province and transporting the product via pipeline to a floating storage and offloading facility (FSO) moored in the Gulf of Papua and the downstream facilities in Caution Bay, Central Province of Papua New Guinea (Figure 1-1).

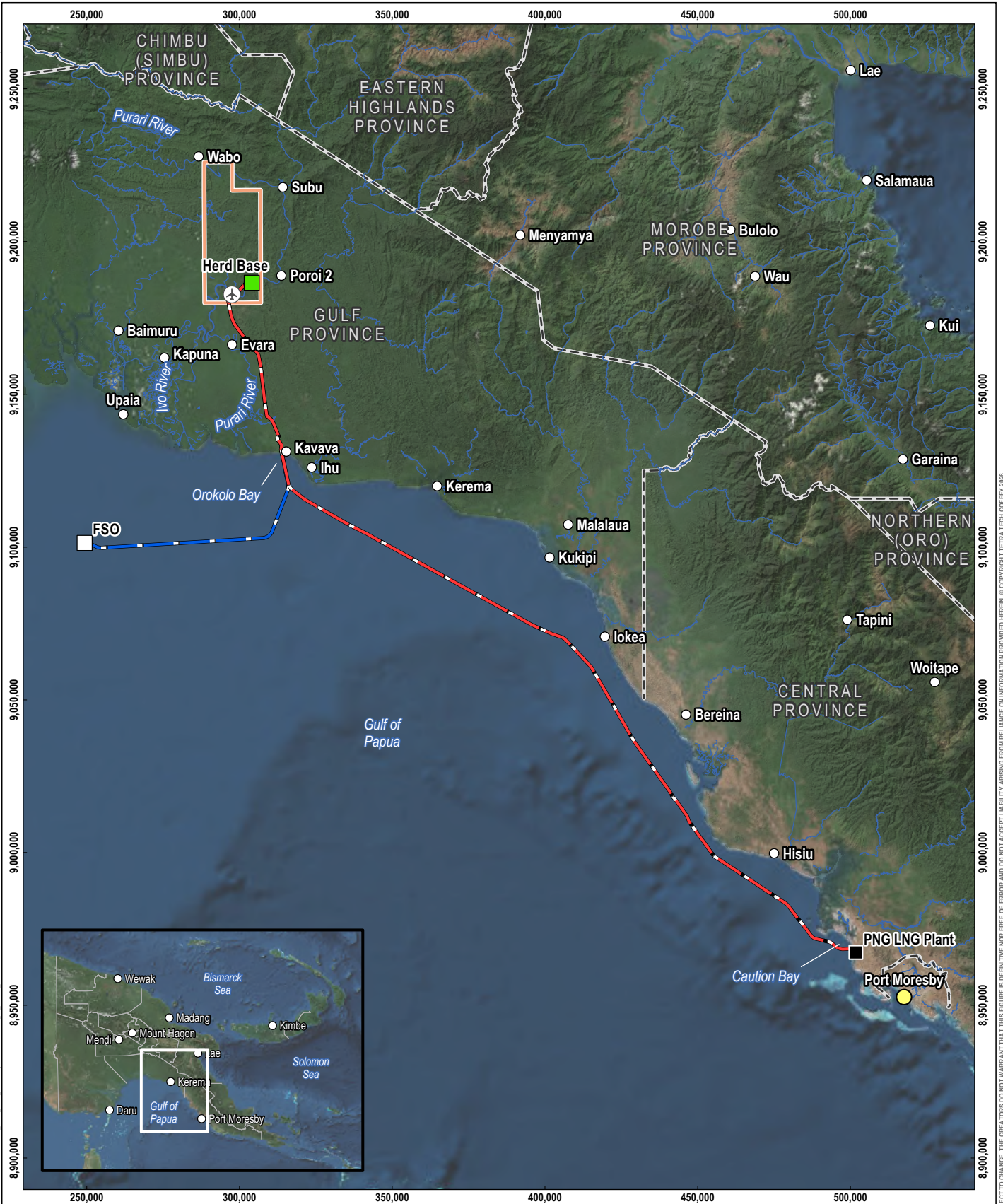
The Papua LNG Project (the Project) is split into upstream and downstream components. TotalEnergies EP PNG Limited (TEP PNG) is the overall proponent and operator for the construction and operation of the upstream infrastructure associated with extraction, processing and transportation of gas and condensate, including well development, central processing facility, and onshore and offshore gas and condensate export pipelines (Upstream Project). ExxonMobil PNG Antelope Limited (EMPNGA) is responsible for the construction of the downstream component co-located at the existing PNG LNG Project liquefied natural gas plant (the LNG Plant) at Caution Bay, approximately 20 kilometres northwest of Port Moresby (Downstream Project). Niugini LNG Operating Company Limited, an EMPNGA affiliate, will be responsible for the integrated LNG Plant once it has been commissioned.

Consistent with the two-operator approach to environmental permitting and other environmental and social due diligence, separate human rights impact assessments (HRIAs) were prepared, reflecting the limited and clearly defined interaction between the upstream and downstream project footprints. Tetra Tech Coffey was engaged to conduct both HRIAs. Each HRIA identified potential human rights impacts on relevant rightsholders and informed mitigation measures and ongoing human rights due diligence (HRDD).

This report presents a summary of the key findings from the Upstream HRIA (Tetra Tech Coffey, 2026a) and the Downstream HRIA (Tetra Tech Coffey, 2026b). The purpose of the report is to present a cohesive, whole-of-Project overview of the results of the HRIAs to support disclosure of the findings to rightsholders and other stakeholders and provide a basis for further engagement on potential human rights impacts as the Project evolves. The report summarises the key findings with a focus on the most salient potential adverse human rights impacts of Project activities on rightsholders.

This report comprises the following sections:

- A brief description of the Project context for both upstream and downstream (Section 2).
- An overview of the method used to conduct the HRIAs (Section 3).
- A brief description of the existing human rights context (Section 4).
- An overview of the key findings from the HRIAs (Section 5).
- A summary of the approach to impact management and ongoing HRDD (Section 6).
- References (Section 7).



LEGEND

- Existing facility
- New FSO location
- Operation site
- Capital city
- Village
- Purari airstrip
- Condensate pipeline route
- Export pipeline route
- Province boundary
- Watercourse
- PRL15 boundary



0 25 50 km
SCALE 1:1,750,000
PAGE SIZE: A4
PROJECTION: PNG94 PNGMG94 Zone 55

SOURCE
Project data from Total.
Villages and watercourses from HOTOSM.
Provinces from NSO.
Imagery from ESRI.

EMPNGA / TEP PNG

PAPUA LNG PROJECT – HRIA SUMMARY OF
KEY FINDINGS

FIGURE 1.1

Project location



DATE: 21.08.26 PROJECT: 754-MELN300733 FILE: 300733_19_F01.01_GIS

2. PROJECT CONTEXT

The Papua LNG Project is a major liquefied natural gas project to develop the Elk and Antelope Fields in the Gulf Province of Papua New Guinea. The Upstream Project involves development of infrastructure associated with extraction and transportation of gas and condensate in Petroleum Retention License 15 (PRL-15), including well development, a central processing facility, and the onshore and offshore gas and condensate export pipelines. The condensate will be transferred to an FSO in the Gulf of Papua, which will be operated by Santos Limited. The Downstream Project involves new gas liquefaction capacity co-located at the existing LNG Plant at Caution Bay and has a similar physical footprint to the existing LNG Plant.

A range of support infrastructure, such as accommodation facilities, temporary construction camps, and new or upgraded roads will also need to be developed for construction and operation of the Project.

Key elements of the upstream and downstream components of the Project that were considered in the HRIAs are summarised in Table 2-1.

Table 2-1 Overview of key Papua LNG Project elements

Project element	Upstream Project	Downstream Project
Land requirements	Mostly greenfield development, with a direct disturbance footprint of approximately 834 hectares plus additional land around Project infrastructure for safety and security.	Brownfield development co-located at the existing LNG Plant site.
Peak construction workforce	Approximately 5,900 personnel.	Approximately 7,000 personnel.
Operations workforce	Approximately 150 people.	Increase of approximately 50 people from the existing PNG LNG Project workforce.
Traffic and transport	Equipment, materials and supplies will be transported by sea from supply bases near Port Moresby to Oroko Bay, and then via the Purari River to Herd Base and other sites within the Project area. Non-local workers will be transported via the upgraded Purari Airstrip. Ferry boats and helicopters will be used to move workers to sites within the Project area.	Construction and operational equipment, materials and supplies will be imported by ship via Motukea Port and trucked to site along Lea Lea Road. Once commissioned, the new capacity will result in an approximately 60 to 70 additional LNG carriers per year.
Workforce accommodation	Construction workers will remain on site at Herd Base or temporary construction camps. Operational personnel will be accommodated at Herd Base.	Construction and operational personnel will remain on site in worker camps. New construction camps are planned to accommodate 6,000 beds, with up to 500 beds at the existing operations camp.
Project support facilities outside of the Project area of influence	Existing and proposed infrastructure used for procurement, logistics, workforce mobilisation, port operations, and Project offices in Port Moresby.	Existing infrastructure used for procurement, logistics, workforce mobilisation, port operations, and Project offices in Port Moresby.
Security arrangements	Project security is managed through private security providers, with support from the Royal Papua New Guinea Constabulary (RPNGC) via a binding memorandum of understanding (MoU). RPNGC personnel remain under government command and control.	Project security is managed through private security providers, with support from the RPNGC via an MoU. RPNGC personnel remain under government command and control.

3. OVERVIEW OF METHODOLOGY

The HRIAs identified and assessed potential adverse human rights impacts resulting from the Project's activities on various rightsholders, such as customary landowners, community members, workers and other stakeholders. The HRIAs also recommended measures for the avoidance, mitigation, and management of identified potential impacts and to support ongoing HRDD for the Project.

3.1 ASSESSMENT APPROACH

Both HRIAs were guided by the United Nations Guiding Principles on Business and Human Rights (UNGPs) (UN, 2011) and relevant aspects of the Equator Principles 4 (EP4) (Equator Principles Association, 2020a, 2020b). The HRIAs employed a common overall assessment method:

- **Scoping:** Desktop research to scope potential human rights impacts related to the Upstream and Downstream projects, including considering salient human rights issues for the industry and prioritising potential human rights impacts for further assessment.
- **Data collection and baseline development:** Primary data collection and analysis through engagement with potentially affected communities and stakeholders, and review and analysis of secondary data.
- **Assessment of identified potential human rights impacts:** Evaluation of the salience of potential human rights impacts, based on determination of severity of potential impact and likelihood, and identification of affected rightsholders.
- **Impact mitigation and management:** Identification of measures to avoid and manage potential human rights impacts, including ongoing HRDD.
- **Reporting:** Reporting on the process and outcomes of the HRIAs.

The Upstream HRIA was principally prepared between December 2023 and March 2025 and included engagement with communities in the Upstream Project area and external stakeholders in 2024. Several updates to the HRIA were conducted in late 2025 and 2026. The Downstream HRIA was prepared between 2023 and 2026. Consultation with potentially affected rightsholders was undertaken between 2019 and 2023 for the Environmental Impact Statement (EIS), with targeted engagement for the HRIA conducted in 2023.

3.2 HUMAN RIGHTS STANDARDS

The UNGPs note that HRIAs should consider, at a minimum, the rights expressed in the International Bill of Human Rights and the principles concerning fundamental rights set out in the International Labour Organization's (ILO) Declaration on Fundamental Principles and Rights at Work (UN, 2011). The UNGPs also note that consideration may also be needed of additional instruments relevant to the rights of individuals belonging to specific groups or populations, such as Indigenous peoples, women and children.

The core human rights instruments that were considered as part of the HRIAs included:

- The Universal Declaration of Human Rights (UN, 1948).
- International Covenant on Economic, Social and Cultural Rights 1966 (UN, 1976a).
- International Covenant on Civil and Political Rights 1966 (UN, 1976b).
- United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) 2007 (UN, 2007).
- United Nations Convention on the Elimination of All Forms of Discrimination Against Women 1979 (UN, 1981).
- United Nations Convention on the Rights of the Child 1989 (UN, 1990).

- ILO Declaration on Fundamental Principles and Rights at Work 1998 (ILO Work) (ILO, 2022), including the ILO Conventions 29, 87, 98, 100, 105, 111, 138, 182, 155 and 187.
- ILO Convention 169 – Indigenous and Tribal Peoples Convention (ILO 169) (ILO, 1989).

Papua New Guinea has ratified several key human rights treaties and provides for recognition and protection of human rights through its regulatory framework.

The *Constitution of the Independent State of Papua New Guinea 1975* sets out the rights and freedoms of individuals in Papua New Guinea, including fundamental rights. There are also a range of other laws that relate to aspects of the Project and the rights of individuals, communities and groups.

3.3 COMMUNITY AND STAKEHOLDER ENGAGEMENT

The HRIAs were informed by engagement with community rightsholders and other stakeholders. For the Upstream HRIA, engagement with rightsholders and other stakeholders was undertaken between April and August 2024 and involved:

- Facilitated stakeholder and community focus group discussions with Project communities from 14 to 25 May 2024, including separate focus group discussions with men and women.
- Key informant interviews in May 2024 with Project area stakeholders, including village leaders, community health workers, teachers, and law-and-order stakeholders.
- In-person and online key informant interviews in April, June, July and August 2024, including with representatives of non-government organisations and civil society organisations, Project staff, contractors and suppliers, and government stakeholders.

The Downstream HRIA considered consultation records from engagement conducted by Tetra Tech Coffey for the EIS between 2019 and 2023, as well as HRIA-specific engagement with rightsholders and stakeholder representatives conducted over four days in 2023. This included feedback from:

- Village, household, health baseline and fisheries surveys with communities in the Downstream Project area.
- Focus group discussions in the Downstream Project area, including with women and youth.
- Key informant interviews with key stakeholders, including Local-Level Government and ward councillors, fisheries associations, law-and-order stakeholders, landowner representatives, church and development associations, women's groups, education and health representatives, and other external stakeholders.

Issues and concerns raised during rightsholder consultation were noted and where possible, efforts were made to cross-reference feedback received with other technical studies conducted for the respective Project EISs, consultation with relevant Project staff, and review of broader literature to support the assessment.

3.4 LIMITATIONS

The HRIAs were based on primary and secondary data available at the time of the assessments, including rightsholder and stakeholder engagement outcomes, Project information and information on the human rights context in Papua New Guinea and local and provincial communities.

Both HRIAs were conducted prior to a final investment decision on the Project and the commencement of construction. The HRIAs are point-in-time assessments and sought to use the most recent information available at the time of the assessments. Changes to communities and social conditions from external social factors and ongoing Project studies and activities may have resulted in changes not captured in the HRIAs. It is also recognised that human rights impacts may change over time.

4. EXISTING HUMAN RIGHTS CONTEXT

This section provides an overview of the existing human rights context at a national level, and in the Upstream and Downstream project areas. The Upstream and Downstream projects are significantly different in their main geographic areas of influence including the communities within these areas, although overlap occurs where the upstream offshore pipeline enters Caution Bay and connects to the LNG Plant site.

4.1 PAPUA NEW GUINEA

The Papua New Guinean Government considers the protection and promotion of human rights of citizens as a fundamental element of administering its governance functions. Papua New Guinea has ratified key international human rights treaties and has laws and policies intended to protect human rights, although on-ground capacity of the State to protect the rights and allow enjoyment of the rights is limited. Major national human rights issues include gender-based violence and harassment, workplace violence, sorcery accusation-related violence (SARV), trafficking in persons, child labour, weak law and order, and poor policing (USDOS, 2023; UN PNG, 2024). Further, access to education and health services is challenged by inadequate funding, shortages of teachers and healthcare professionals, and limited facilities, especially in rural areas (USDOS, 2023; UN PNG, 2024). Women, children, youth, and other vulnerable groups are disproportionately affected by poverty and violence, while high rates of unemployment for youth and economic disparities faced by women also increase vulnerability of these groups.

Gender-based violence and sexual exploitation is at endemic levels in Papua New Guinea (UN PNG, 2024) and it is estimated that more than 1.5 million women experience gender-based violence annually (USDOS, 2023). Stigma, fear of retribution, and limited trust in authorities means that most women do not report rape or domestic violence. Intimate partner violence is also seen by most communities as a private matter, further discouraging reporting of incidents (USDOS, 2023). SARV killings are also a rising area of concern. Cases of SARV are understood to be significantly underreported, and of those that are, many victims are women. Older persons, particularly women and specific categories of widows, are reported to be amongst the most targeted groups for SARV (UN PNG, 2024). Sexual exploitation and violence of women and children has also been linked to increases in rates of transactional sex and sex work that is associated with the large, mobile, male workforces that occur with large-scale construction projects in Papua New Guinea and elsewhere (Tingim Laip, 2013; Aggleton, Bell, and Kelly-Hanku, 2014; Wardlow, 2020; World Bank, 2019).

Approximately 97% of land in Papua New Guinea is under customary ownership (USAID, 2020). Papua New Guinea explicitly recognises customary landowners and their rights over land and natural resources. The *Oil and Gas Act 1998* requires the implementation of a social mapping and landowner identification study to allow the State to determine customary landowners eligible to receive State-mandated Project benefits. Subsequently, government recognised customary landowners participate in a government-led development forum, through which agreement on benefit sharing is sought. Under the International Finance Corporation Performance Standard 7 (IFC PS7) (IFC, 2012), enhanced forms of engagement (informed consultation and participation (ICP)) and in certain circumstances free, prior and informed consent (FPIC) are required for affected Indigenous peoples. This requirement is also consistent with UNDRIP¹.

The *Constitution of the Independent State of Papua New Guinea 1975* gives all citizens the right to choose their employment. The *Employment Act 1978* guides employment in the formal sector and regulates matters such as work hours, minimum age of work, and gender discrimination, although the Act prohibits women from undertaking certain types of work and from working certain hours unless they hold certain positions. Limited government enforcement capacity means that violations of regulations relating to wages, overtime, and occupational health and safety are frequently observed in a range of industries, including construction (USDOS, 2024). Nepotism, especially within one's *wantok* (language group), is prevalent in Papua New Guinea (Imbun

¹ The PNG government has not endorsed UNDRIP, which is a key human rights instrument for Indigenous rights.

& Satish, 2003). While culturally accepted, nepotism is inconsistent with international human rights standards that prohibit discrimination based on family or social ties (CESCR, 2016), and there are no national laws in Papua New Guinea that prohibit this practice.

4.2 UPSTREAM PROJECT AREA

The Upstream Project is largely located within a remote and underdeveloped part of the Gulf Province. The population of the Gulf Province is relatively small, and services are concentrated in a few centres such as Kerema and Kikori. Stakeholders described the province as poorly supported by the State with respect to basic services that support fundamental human rights aspects, noting challenges regarding its remoteness and governance.

Within the Upstream Project area, most land is customary owned by clans or family groups. Sago is the main staple food for communities, along with garden food. Communities also hunt for wild pigs and other animals and fish in rivers, estuaries and the ocean. Government and community services are limited, and many communities lack access to essential services such as education, health, and law and order. Where facilities do exist, they are often poorly maintained, and face shortages in staff, equipment, and supplies (IDP Consulting, 2024; NewFields, 2017; Finlayson, 2017). Transport barriers and reliance on subsistence livelihoods further limit some peoples' access to services and affect the enjoyment of rights, particularly for women and children. In engagement with communities and local health providers for the HRIA it was noted that key health concerns for local communities include tuberculosis, malaria, sexually transmitted infections (STIs), and human immunodeficiency virus (HIV).

Law-and-order issues were reported during HRIA engagement as key concerns for residents of villages across the Upstream Project area, with prevalent issues including sexual assault, domestic violence against women and children, fighting, vandalism and stealing. Feedback indicated that these issues are commonly associated with alcohol (homebrew) and illicit drug use. In-migration of people from other areas and fears of sorcery were also identified as key reasons influencing perceptions of safety for community members, particularly for women.

4.3 DOWNSTREAM PROJECT AREA

The Downstream Project is in the Central Province, and is adjacent to the National Capital District which hosts the country's capital, Port Moresby. Central Province has a substantial and growing population, while high population growth rates and rapid urbanisation in and around Port Moresby have outpaced planning and service delivery, contributing to many informal settlements within and around the capital (NSO, 2025; NCD, 2026). Although community, health and social services are available, access to these services is uneven and the enjoyment of rights to health, education, safety and protection from violence is challenged, particularly for women, children and other vulnerable groups (UN-Habitat, 2010).

In the Downstream Project communities, i.e., the PNG LNG Plant communities of Lea Lea, Papa, Boera and Porebada, there is a mix of urban and traditional subsistence influences. The communities have benefited from PNG LNG Project-related support to education, livelihoods, and local business, through provision of school infrastructure, teacher housing, water supply programs, women's and youth programs, and engagement with local landowner companies. The communities are well connected to road infrastructure and have access to high-level services in Port Moresby. However, stakeholder engagement indicated that the enjoyment of rights remains constrained by law-and-order challenges, uneven service delivery, and challenges in maintaining livelihoods.

During engagement for the Downstream Project's Social Baseline (Tetra Tech Coffey, 2023), community members reported that they perceived villages were safer prior to the PNG LNG Project, with the decline in people's perceptions of safety attributed to the presence of outsiders within the community and to increased alcohol consumption. In particular, women reported heightened concerns about safety due to the presence of outsiders.

5. OVERVIEW OF KEY FINDINGS

The HRIAs assessed potential Project-related adverse human rights impacts across a broad range of human rights aspects. For each aspect, the HRIAs defined the potentially affected human rights and described the existing human rights context or baseline. Each HRIA identified the affected rightsholders for each impact, and existing and additional measures to avoid or mitigate the potential human rights impacts.

The residual salience was assessed for each identified potential human rights impact with consideration of the existing human rights context relevant to the Project component, and the potential impact of Project activities on the identified rights following the implementation of mitigation and management measures. The purpose of the salience rating was to prioritise the prevention and mitigation of impacts based on the severity and likelihood of the potential impact. In accordance with UNGP Principle 24 (UN, 2011), *'While business enterprises should address all their adverse human rights impacts... if prioritization is necessary business enterprises should begin with those human rights impacts that would be most severe.'*

The following is a summary of the key human rights aspects and the different rights considered in each aspect; the Project-related drivers of potential human rights impacts, and the key findings of the Upstream and Downstream HRIAs as they relate to the different human rights aspects. Given the differences in Project activities, footprints and human rights context between the Upstream and Downstream projects, key salient impacts were not identified for every human rights aspect in each HRIA.

The HRIAs noted that Project-related employment, compensation, and livelihood and community development initiatives have potential for positive impacts on some human rights aspects such as community health, livelihoods, education, working conditions and women's rights. However, consistent with the UNGPs and EP4, the focus of the HRIAs was on potential adverse human rights impacts, and this summary does not describe the potential positive human rights impacts.

5.1 KEY HUMAN RIGHTS ASPECTS

The key human rights aspects and potentially affected human rights considered through the HRIAs were:

- Community health, which included the right to health for community rightsholders, particularly women and girls.
- Community safety, which included the right to life and the right to health.
- Indigenous peoples' rights to participation and self-determination.
- Participation and information, which included rights to participation and information, and freedom of opinion and expression.
- Community grievance mechanism, which included the right to effective remedy.
- Livelihoods and economic displacement, which included the right to an adequate standard of living, including adequate food, housing, and water; and the right to education.
- Cultural rights, which included the right to participate in cultural life, and the right of Indigenous peoples to maintain, control, protect, and develop their cultural heritage, traditional knowledge and traditional cultural expressions.
- Interactions with security forces, which included the right to life, liberty and security of persons.
- Community violence, which included the right to life, liberty and security of persons.
- Workers' rights, which included local contractors and suppliers' workers' rights, including rights to non-discrimination, not to be submitted to slavery, servitude, forced labour or compulsory labour, rest, leisure and reasonable working hours, freedom of association and collective bargaining, fair wages and equal pay

for equal work, effective remedy, just, favourable, safe and healthy working conditions, and freedom from child labour, including freedom from the worst forms of child labour.

5.2 DRIVERS OF POTENTIAL HUMAN RIGHTS IMPACTS

The HRIAs identified Project drivers or activities associated with the construction and operations phases with potential for human rights impacts. These included drivers or activities such as:

- Construction and operation of Project infrastructure resulting in disturbance to land access, natural resource areas used for food supply and cultural heritage values.
- Transport activities, including use of the Purari River within the Upstream Project area and Lea Lea Road in the Downstream Project area for the movement of materials, plant, equipment and workers.
- Community engagement activities and use of information collected.
- Project security, including use of private security providers and support from public security forces deployed by the Government.
- Recruitment of Project workforce and employment, and use of suppliers and contractors to provide goods and services.
- Royalty and compensation payments to landowners, and jobs and business opportunities, leading to increased incomes for individuals and households.
- Project-induced in-migration (PIIM), that is the migration of people into the Project area for jobs or other Project-related opportunities, particularly during the pre-construction and early construction phases.

PIIM was identified as a driver of potential impact across several human rights aspects in both HRIAs. PIIM is common to many large-scale resource projects, including in Papua New Guinea. Within the Upstream Project area, levels of PIIM are generally expected to be low, due to factors such as strong cultural identities, limited transport access and remoteness of villages. The exception to this is Wabo Station and surrounding villages, which are expected to experience higher levels of in-migration due to local traditional customary links, close tribal relationships and affiliations shared with the lower highland provinces of Chimbu and Eastern Highlands. For the Downstream Project area, PIIM is expected to be short-term, largely anticipatory (with people moving into the area in expectation of potential Project benefits) and be minor in scale, particularly as the Project is co-located at the existing LNG Plant site.

The Upstream and Downstream HRIAs both identified that the Project is expected to influence the existing social, cultural and economic environment, for example, through increased wealth in local communities due to employment and other direct or indirect benefit streams, or through in-migration due to family connections or experiences of past or current in-migration, despite the implementation of management measures to address PIIM. The actions or decisions of some people who are affected by these influences, particularly in the context of existing cultural practices and pre-existing issues and vulnerabilities in the Project communities, may result in adverse human rights impacts across multiple human rights aspects.

5.3 UPSTREAM HUMAN RIGHTS FINDINGS

This section summarises the key findings from the HRIA conducted for the Upstream Project.

5.3.1 Community health

Health care within the Upstream Project area is mainly provided through health posts that provide first aid level care to one or more villages; health centres at Orokolo, Baimuru and Ihu; and the Kapuna Hospital. The Upstream Project has implemented a range of community development initiatives since 2015, which have supported capacity building and resilience of local communities and improved access to health care for communities in preparation and readiness for the Project. However, many communities continue to face barriers regarding access to basic health care services, with service delivery challenged by poor infrastructure, lack of staff, shortages in supplies and equipment, and transport constraints. Key health concerns for local communities are tuberculosis, malaria, STIs and HIV.

Estimated population increase in Project area villages due to PIIM, and increased incomes from Project employment, compensation and royalty payments have the potential to affect the health outcomes of people through the spread and transmission of disease and demand for health care services. Consistent with other resource development projects in Papua New Guinea and elsewhere, higher disposable incomes and an increase in a predominantly male population into Upstream communities associated with PIIM is expected to increase demand for commercial sex and enticement to transactional sex, particularly for women and girls. An increase in men with access to more cash may also increase instances of polygamy and extramarital relationships, which may lead to an increase in the prevalence of reproductive and sexual health issues. The remote location of the Upstream Project area means that levels of PIIM are generally expected to be low, although given the underlying capacity of existing health services, population increase associated with PIIM has potential to increase pressure on local health care services.

Potential human rights impacts relating to community health will be managed through a range of environmental and social management plans developed for the Upstream Project by TEP PNG, including the Community Health, Safety and Security Management Procedure, Community Development Plan, PIIM Management Procedure, and Gender Management Plan. The Project has commenced the implementation of strategies and programs that support capacity building and resilience of local communities, Gulf Provincial authorities, and Kapuna Hospital in preparation and readiness for potential impacts of the Project.

5.3.2 Community safety

The Purari River is central to the lives of many communities within the Upstream Project area, supporting livelihood activities such as fishing and gardening, and acting as the primary transport route between communities and to services and facilities. Canoes are most frequently used by community members for river travel, although some people use motorised dinghies.

Use of the Purari River and other waterways for the movement of Project equipment, materials, supplies and workers will increase the number of vessels travelling on the water, particularly during the construction phase. This has the potential to reduce river safety for communities within the Upstream Project area. Increased risks to community safety may also result from higher river traffic associated with greater community use of motorised dinghies due to increased Project-related incomes, or use of dinghies provided as part of the Project's community development initiatives to support community service delivery.

Potential human rights impacts relating to community safety on the waterways will be managed through a range of operational standards and requirements governing vessel movement, as well as environmental and social management plans and procedures developed for the Upstream Project, including the Traffic and Transport Management Plan, which seeks to avoid or minimise impacts associated with interactions between Project vessels and other waterway users. Additional measures to avoid or mitigate potential impacts also include

education and awareness programs relating to river traffic and safety delivered as part of the Stakeholder Engagement Management Plan.

5.3.3 Community violence

Within the Upstream Project area, sexual assault and domestic violence against women and children are existing prevalent law-and-order issues, often related to drug and alcohol use. Feedback from engagement for the HRIA indicated that women's perceptions of safety varied across the Upstream Project area; women in villages to the north reported that they did not feel safe going about daily activities such as fishing and walking to the garden by themselves. Social and cultural norms, in-migration of people from other areas and SARV also affect existing levels of safety and perceptions of safety, particularly for women and girls.

Estimated population increases into Project area villages due to PIIM, and increased incomes and access to money from Project-related employment and compensation, particularly for young men, may be associated with a rise in the incidences of drug-related crime, violence, and anti-social behaviour. A greater number of males with access to money and potential changes in gender dynamics related to the Project (e.g., participation of women in Project employment, increase in women earning income through formal employment) also has potential to increase sexual and domestic violence against women and girls.

Potential human rights impacts relating to community violence will be managed through several management plans developed for the Upstream Project, including the PIIM Management Procedure, Gender Management Plan, Community Development Plan, Community Health, Safety and Security Management Procedure, Project Land Access and Livelihoods Framework, National Content Plan and additional measures identified through the Upstream HRIA.

5.3.4 Interactions with security forces

The Upstream HRIA considered potential human rights impacts due to support to the Project from the RPNGC and the use of private security providers. This presents a potential risk of mistreatment of community members through the misuse of force, harassment or intimidation of community members by security personnel. No higher salient impacts related to interactions with security forces were identified as part of the Upstream HRIA with the implementation of management measures such as the Upstream Project's Voluntary Principles on Security and Human Rights (VPSHR) framework, MoU with the RPNGC, and the terms and conditions of security contracts, which include clauses relating to VPSHR compliance and employee background checks of private security providers.

5.3.5 Indigenous peoples' rights to participation and self-determination

The social mapping and landowner identification study for the Upstream Project has been completed to identify relevant customary landowners affected by the Upstream Project. There are a number of different customary landowning clans that have land that will be directly affected. Challenges with engagement and participation processes has potential to result in some affected landowners having an incomplete understanding of the Project and its potential impacts.

The Upstream Project has defined a process for establishing ICP with affected communities and achieving FPIC where triggered. Relevant documents developed for the Upstream Project supporting this include the Stakeholder Engagement Management Plan, Indigenous Peoples' Framework and ICP/FPIC Implementation Plan.

At the time of HRIA engagement in May 2024, Upstream communities indicated that there was general awareness of the Project, although there was overall limited understanding about potential impacts on their communities and interests. A subsequent FPIC process verification review (RINA, 2025) was conducted by the Project's Independent Environmental and Social Consultant, which involved engagement with Project

communities in September and November 2025. This review indicated that planning for FPIC was strongly aligned to IFC PS7 and UNDRIP and that ‘the Project is well positioned to achieve full FPIC compliance, provided that ongoing efforts are maintained, and key actions are completed’ (RINA, 2025).

5.3.6 Participation and information

The geography of the Upstream Project area poses challenges for community consultation and engagement, including access to information and opportunities to participate. Limited communications infrastructure and services in some parts of the Upstream Project area, and traditional attitudes towards women and girls also present challenges to information access and participation. The Upstream Project’s social baseline found that women are less likely to speak Tok Pisin, Motu and English compared to males and generally have much lower levels of education and literacy, particularly for females in the Pawaia and Ahia language groups (Finlayson, 2017). These factors have potential to affect participation and access to information for vulnerable groups such as women, youth, the elderly and people with a disability.

Potential human rights impacts relating to participation and information aspects will be managed through the Upstream Project’s Stakeholder Engagement Management Plan, IP Framework and ICP/FPIC Implementation Plan that aims to build trust-based relationships with communities, comply with regulatory requirements and international standards (including ICP/FPIC as triggered) and contribute to the effective management of stakeholders’ concerns, expectations and issues.

5.3.7 Community grievance mechanism

Most villages in the Upstream Project area currently rely on the village level law-and-order services with the support of village and clan leaders to resolve issues and community grievances. These services are generally constrained by a lack of funding, capacity, sufficient infrastructure, and enforcement. Access to remedy for women can also be constrained by traditional practices and cultural norms. Population increases into Upstream communities due to PIIM may increase demand for, and pressure on, existing and already constrained remedy mechanisms available to the community, leading to a decline in community members’ access to existing community remedy mechanisms and potential impact on people’s right to effective remedy.

The community grievance mechanism for the Upstream Project provides a process for community members to access remedy and raise concerns about the Project. A lack of community understanding of, access to, or trust in the community grievance mechanism, as well as the capacity of the Project to handle complex or high volume of grievances received may potentially impact the effectiveness of the mechanism in managing community concerns about the Project, particularly for women.

Potential human rights impacts relating to community grievances will principally be managed through the Upstream Project’s Community Grievance Mechanism and supported by other management plans such as the Gender Management Plan, the Stakeholder Engagement Management Plan, PIIM Management Procedure, Construction Environmental and Social Management Plan and the Community Development Plan.

5.3.8 Livelihoods and economic displacement

Most land in the Upstream Project area is customary land, communally owned by clans or groups of families. Land is divided into common areas for hunting, fishing and collecting resources and land allocated to families for gardening and residential purposes. Upstream communities mainly rely on subsistence-based livelihoods. Sago is the main staple food for communities, along with garden food, hunting, and fishing.

Construction activities, particularly for the shore crossing of the export pipeline, have potential to affect areas used for livelihood activities, resulting in the loss of land use, or reduced access to natural resources for food supply. Further, participation of men in Project employment and other project activities has potential to reduce

the time they have available to contribute to livelihood activities and increase the workload of women and children in relation to subsistence activities.

Potential human rights impacts relating to livelihoods and economic displacement will be managed through land access and livelihood strategies developed for the Upstream Project, such as compensation and livelihood restoration and development programs, as well as the Construction Environmental and Social Management Plan, Gender Management Plan, and Community Development Plan.

5.3.9 Cultural rights

Communities in the Upstream Project area maintain strong cultural traditions and practices, including traditional language (*tok ples*), oral traditions, spirit oral traditions, traditional song and dance, traditional dress, and traditional subsistence knowledge and medicines. Feedback from community members reported that many cultural practices are declining due to factors such as increased dependence on the cash economy and the influence of outsiders migrating into Project villages. Social and economic change within the Upstream Project area driven by development of the Project, employment, increased income, and PIIM has the potential to further the loss, or decline of cultural identity and traditions, including loss of local language and cultural practices.

Potential human rights impacts relating to tangible and intangible cultural heritage will be managed through the Cultural Heritage Management Procedure and associated procedures and guidelines developed for the Upstream Project. The Community Development Plan also includes measures to assist in the conservation of Indigenous knowledge and culture while initiatives such as support to clan requests in conducting traditional cultural ceremonies and the Toare Mask Festival also promote awareness and preservation of intangible cultural heritage values.

5.3.10 Workers' rights

The Upstream Project will support a large number of direct and indirect jobs for workers in the Project area, Gulf Province and across Papua New Guinea, particularly during the construction phase. Many of these jobs are expected to be provided through local contractors, subcontractors and suppliers of goods and services to the Project.

Recruitment practices of Project contractors and suppliers have potential to impact on the rights of workers due to possible marginalisation or exclusion of women from recruitment and access to employment, discrimination in recruitment based on clan or social ties or risk of forced or indentured labour.

Women in the Upstream Project area face challenges in gaining access to employment due to lower levels of education, literacy, and formal work experience (Finlayson, 2017), and customs and traditional attitudes to women mean that many women are prevented from participating in formal employment. These factors may increase the risk of discrimination against women in contractor and supplier recruitment practices and reduce their ability to access Project-related employment opportunities. Predominantly male accommodation camps may also present safety and security risks, including gender-based violence and harassment, potentially impacting on the rights of women.

TotalEnergies' Fundamental Principles of Purchasing and Code of Conduct require all suppliers of goods and services to comply with seven key principles, and in turn ensure compliance by their own suppliers. Principle 1 includes 'respect human rights at work' and seeks to ensure 'that working conditions and remuneration of workers preserve human dignity and are consistent with the principles defined in the Universal Declaration of Human Rights (UNDHR) and by the fundamental Conventions of the International Labour Organization' (TotalEnergies, undated). At a Project level, potential impacts on rights relating to the supply chain and workplace will be primarily managed through the Upstream Project's Industrial Relations Management System, including the Project Labour and Working Conditions Management Procedure and associated documents. Employment agencies will also be required to consider or include provisions to protect the human rights of the

contracted workforce and adhere to relevant international conventions and standards when issuing contracts of employment. The implementation of governance training and capacity building for landowner companies in relation to non-discrimination will also be important in managing potential impacts on the rights of workers.

5.4 DOWNSTREAM HUMAN RIGHTS FINDINGS

This section summarises the key findings from the HRIA conducted for the Downstream Project.

5.4.1 Community health

Communities in the Downstream Project area experience a range of existing health challenges that contribute to community vulnerability, including widespread presence of communicable, mosquito-borne and sanitation-related diseases, sexual health issues, and constraints to health care access due to lack of funding, staff, equipment and medical supplies.

Community health may be influenced by PIIM, mobilisation and presence of workers, increased household incomes, and broader social and economic change associated with Project activities. Experience from other resource developments in Papua New Guinea indicates that these factors can place additional demands on local services and contribute to the spread of communicable disease and sexual and reproductive health issues, particularly for women, girls and other potentially vulnerable groups.

Potential human rights impacts relating to community health will be managed through a range of environmental and social management plans and programs developed for the Downstream Project by EMPNGA. These include the Community Health, Safety and Security Management Plan, PIIM Management Plan, Requirements for Camps and Accommodations and broader stakeholder engagement and community development initiatives.

5.4.2 Community safety

Lea Lea Road supports connectivity for a range of users, including private motorists, cyclists, motorcyclists, public transport users and pedestrians accessing public transport stops and roadside market stalls. An increase in traffic using Lea Lea Road associated with the transport of construction materials for the Downstream Project has potential to increase the risk of traffic accidents, including incidents that could result in serious injury or loss of life for community members and other road users.

Potential human rights impacts relating to community safety associated with traffic will be managed through a range of measures implemented through the Operations Integrity Management System², the Traffic and Transport Management Plan and Community Health, Safety, and Security Management Plan developed for the Downstream Project. These measures include driver competency and fatigue management requirements, speed controls, transport planning, community awareness initiatives and other traffic safety measures intended to reduce risks to road users and local communities.

5.4.3 Community violence

During consultation for the Social Baseline, communities in the Downstream Project area reported a decline in perceptions of safety during the construction of the existing LNG Plant (Tetra Tech Coffey, 2023). Community feedback from the HRIA engagement attributed this to increases in public drunkenness, violence and crime and family and sexual violence. This was also consistent with concerns raised during consultation for the Project's EIS, where some community members described increasing alcohol consumption associated with higher

² Particularly OIMS Element 2 (Identifying, Assessing, Mitigating and Accepting Risk), Element 6 (Operating and Maintaining Assets), and Element 10 (Preparing for Emergencies and Managing Potential Risk to the Community).

household incomes as influencing levels of family and sexual violence. Peoples' perception of safety, particularly among women, is also reported to be influenced by the presence of outsiders within the community.

The Downstream Project's EIS and HRIA consultation indicate that communities in the local study area experience a significant underlying prevalence of family and sexual violence. Population increases associated with PIIM, higher disposable incomes related to employment and Project benefits, workforce mobility, and broader changes to the existing social, cultural and/or economic environment related to the Project may adversely influence the levels of violence, including family and sexual violence, within the Downstream Project area. Higher levels of commercial and transactional sex may also be associated with an increased risk of sexual exploitation of women, girls and other potentially vulnerable groups.

Potential human rights impacts relating to community violence will be managed through a range of management measures for the Downstream Project, including Requirements for Workforce Relations and Working Conditions, Community Health, Safety, and Security Management Plan, PIIM Management Plan and Requirements for Camps and Accommodations.

5.4.4 Interactions with security forces

Public security personnel such as the RPNGC, operating under the authority and command of the Government, may engage with community members in connection with Project-related activities, including the maintenance of marine exclusion zones or responses to Project-related public order incidents. This presents a potential risk of mistreatment of community members through the misuse of force, harassment or intimidation of community members by security personnel.

Exxon Mobil Corporation has been a member of the Voluntary Principles Initiative since 2002, and EMPNG implements the VPHSR through the *Framework on Security and Human Rights* (ExxonMobil 2025a), which guides how operations manage interactions with government-assigned security and private security providers. Interactions between the Downstream Project and the RPNGC will be guided by an MoU that sets out expectations regarding security-related conduct and engagement (note that the RPNGC presently supports ExxonMobil PNG Limited operations via an MoU). Additional management measures include security and human rights training, community engagement regarding marine exclusion zones, incident reporting and investigation processes, and grievance mechanisms available to affected stakeholders.

5.4.5 Indigenous peoples' rights to participation and self-determination

For oil and gas projects, the Government development forum is an important avenue for landowner participation in agreement making for the distribution of project-related benefits. The State has responsibility to establish and implement the development forum process, as outlined in Section 48 of the *Oil and Gas Act 1998* and the subsequent implementation of agreements from this process. Participation of landowners in the forum is preceded by a formal process of identifying and verifying the rightful landowner beneficiaries associated with affected land. The development forum process is implemented by the State and involves the applicant for the licence, project area landowners or their representatives, and relevant local and provincial level governments. The process is intended to lead to a development agreement.

Consultation undertaken as part of the Downstream HRIA highlighted stakeholder concerns relating to transparency, access to information and benefit distribution associated with the benefits sharing agreement. Consistent with these concerns, potential human rights impacts on people who have traditional ownership or customary use of land within the Project area of impact, may arise as part of the Government-led development forum process and the subsequent implementation of agreements arising from this process.

The Papua LNG development agreement will be established between the State, the local and provincial governments, and Papua LNG Project area landowners, including those from the Upstream Project. The Papua LNG Project and EMPNGA will not be parties to this agreement and therefore have no direct responsibility for

its implementation or governance. However, EMPNGA will provide support to the development forum process. Outside of the development forum process, the Downstream Project is applying IFC PS1 and IFC PS7, which require a robust ICP process, supporting the downstream component's approach to respect for the rights of Indigenous peoples to participation and self-determination.

5.4.6 Participation and information

No salient human rights impacts relating to participation and information were identified as part of the Downstream HRIA.

5.4.7 Community grievance mechanism

No salient human rights impacts relating to the Downstream Project's community grievance mechanism or the communities' access to existing remedy were identified as part of the Downstream HRIA.

5.4.8 Livelihoods and economic displacement

Communities in the Downstream Project area rely on both purchased food and subsistence gardening and fishing, although subsistence gardening is highly dependent on seasonal factors and is constrained by poor soils and water scarcity (Tetra Tech Coffey 2023). Land disputes often linked to positioning for compensation and royalty distribution from the PNG LNG Project, as well as population growth, are also affecting the availability and suitability of land for gardening in Downstream communities (Tetra Tech Coffey, 2023). Food shortages were also reported to be experienced by many households, particularly in Porebada (Tetra Tech Coffey, 2023). During consultation for the HRIA, community members expressed concerns of overcrowding in communities, with this attributed to natural population growth, disruption to traditional out-migration processes, and in-migration through marriage, land rental and other informal arrangements with customary owners.

Potential impacts on livelihoods may arise from changes in the availability, accessibility, and affordability of food within communities associated with the Downstream Project's influence on the existing social, cultural and/or economic environment. These changes may relate to increased cash incomes from Project-related employment and other benefit streams. Population growth associated with PIIM may increase competition for land and other natural resources that support household livelihoods. Population growth associated with PIIM may also lead to a decline in housing quality and living standards due to larger household sizes, and reduced access to educational services and overburdening of educational facilities due to the potential increase in school-aged children.

Potential human rights impacts relating to livelihoods and economic displacement will be managed through a range of management plans including the Downstream Project's PIIM Management Plan and the Community Development Support Plan.

5.4.9 Cultural rights

Access to and attachment to land is a core component of cultural identity for communities in the Downstream Project area. Community members reported that cultural identity is strongly linked to access to land, including land for gardening, although also observed that knowledge and recognition of land ownership, including boundaries, is declining. Community members also expressed concerns about PIIM leading to conflict over land within some Downstream communities (Tetra Tech Coffey 2023).

The Downstream HRIA considered potential impacts on cultural rights relating to cultural heritage sites. No specific cultural values were identified in relation to the archaeological materials present in the Project disturbance footprint, and no concerns were raised by community members regarding cultural heritage sites.

Population growth related to PIIM, along with the Project's influence on the existing social, cultural and/or economic environment, has the potential to increase demand for land within Downstream communities. This may reduce land availability and community members' access and cultural attachment to land.

Potential human rights impacts relating to cultural rights associated with the influence of PIIM will be managed through the Downstream Project's PIIM Management Plan, which includes a range of measures to reduce the potential for PIIM, and to manage it where it cannot be prevented, including monitoring of changes to land use.

5.4.10 Workers' rights

The Downstream Project is expected to require a peak construction workforce of up to 7,000 workers, comprising mainly contractors and subcontractors. Construction activities will also require a large supplier workforce providing goods and services to support Project activities. Similar to other resource development projects in Papua New Guinea, the Downstream Project will prioritise project-area communities and Papua New Guinean nationals for employment in accordance with Project requirements and the necessary skills for each role, as outlined in the National Content Plan. Laba Holdings currently serves as the umbrella landowner company representing the customary landowners of the PNG LNG plant site and surrounding villages. Laba Holdings and its joint ventures currently provide a range of services to the PNG LNG Project, with these arrangements expected to continue for the Downstream Project.

Potential human rights impacts may arise due to recruitment practices of contractors and subcontractors, employment arrangements, working conditions, and contractor and supplier management. Consultation for the Downstream HRIA highlighted stakeholder concerns about the transparent and equitable distribution of workforce opportunities, including concerns that recruitment processes implemented by landowner companies favoured certain clans and groups over others in the community, including women.

Potential human rights impacts relating to worker's rights will be managed through the Downstream Project's Industrial Relations Management System, National Content Plan, Requirements for Workforce Relations and Working Conditions, Requirements for Camps and Accommodations, and contractor and supplier management processes. These management measures are intended to support fair recruitment practices and safe and healthy working and living conditions.

6. IMPACT MANAGEMENT AND ONGOING HUMAN RIGHTS DUE DILIGENCE

The UNGPs expect businesses to take necessary steps to prevent or mitigate adverse human rights impacts and where appropriate remediate impacts commensurate with their contribution to the impact (UN, 2011). The UNGPs expect businesses to have clear commitments to respecting human rights and embed this in their approach to business, assessing impacts to human rights and demonstrating in a transparent manner the actions they are taking to address them and track performance.

The Upstream and Downstream HRIAs were conducted prior to a final investment decision on the Project and the commencement of construction and articulate the current understanding of the potential human rights impacts associated with the Project. The HRIAs for the Upstream and Downstream components considered the existing management framework in place to manage potential human rights impacts of the Project, which comprises:

- Embedding respect for human rights through Project policies and practices.
- Established environmental and social management frameworks that include environmental and social management plans that address social, environmental and human rights aspects and provide ongoing monitoring programs.
- Access to remedy through grievance management mechanisms.
- Processes for ongoing engagement with rightsholders and other stakeholders.
- Shared responsibility for respecting human rights across the various functions within each entity.

Each HRIA recommended additional mitigation and management measures for identified potential human rights impacts to integrate into the existing environmental and social management framework.

Ongoing HRDD for the Project is expected to involve:

- Integration of the findings of the respective HRIAs into Project governance processes and management systems.
- Disclosure of the outcomes of the HRIAs and ongoing engagement with potentially affected rightsholders and other stakeholders to inform management of the Project's human rights impacts.
- Ongoing maintenance and operation of accessible grievance mechanisms and processes for raising concerns about the Project and seeking remedy, where appropriate.
- Monitoring and evaluation of potential human rights impacts and the implementation and effectiveness of avoidance, mitigation, and remediation measures, including effectiveness of the grievance mechanisms.
- Periodic review and assessment of human rights risks and impacts, considering emerging human rights issues, or material changes in Project activities or the human rights context.
- Communication on the Project's performance against its human rights commitments and management of potential impacts and grievances.

To support ongoing HRDD, TEP PNG and EMPNGA maintain regular coordination across multiple levels and share knowledge and lessons learned, including on a range of human rights aspects and associated management and mitigation strategies.

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