



**PNG LNG Quarterly
Environmental and Social Report**

**Third Quarter
2011**



PNG LNG

*Energy for the World. Opportunity for Papua New Guinea.
Eneji Bilong Wol. Luksave Bilong Papua Niugini.*



Empowering women's participation in Papua New Guinea's economic development

“Helping Papua New Guineans to derive benefits from the development must be part of the Project's legacy.”

Decie Autin, Project Executive, Esso Highlands Limited

“There are many opportunities available for [Papua New Guinean] women and girls to help each other to make a good and honest life.”

Florence Bunari, Business Owner

The Papua New Guinea Liquefied Natural Gas (PNG LNG) Project (Project) is creating a legacy that will benefit communities in the years to come by making a concerted effort to provide opportunities to the women of Papua New Guinea. In addition to employing more than 900 women, who make up over eight percent of the Project's workforce, women are engaged in establishing a broad range of community development initiatives in areas such as education, community health and safety, and infrastructure. Through the Enterprise Centre, the Project is also facilitating dedicated business training and mentoring, and promoting opportunities for women's businesses to provide goods and service to the Project and its contractors.

This is the seventh PNG LNG Quarterly Environmental and Social Report, which demonstrates how Esso Highlands Limited, as operator of the Project, is delivering on safety, health, environmental and social management commitments. Esso Highlands Limited, a subsidiary of Exxon Mobil Corporation, is responsible for the Project's construction and operation on behalf of co-venturers: Oil Search Limited, National Petroleum Company PNG Limited, Santos Limited, JX Nippon Oil and Gas Exploration Corporation, Mineral Resources Development Company Limited and Petromin PNG Holdings Limited, and their affiliates.

Pre-construction activities

Pre-construction surveys conducted to date cover 87 percent of the 292-kilometre main pipeline route, while surveys on the 10-kilometre Gobe Spurline and the 2-kilometre Kutubu Spurline are complete. No new cultural heritage sites were identified during the third quarter.

87% of the 292-kilometre main pipeline route surveyed

“I don't just wear the uniform. I really believe. This Project is like an egg on my palm. I feel very responsible; I just want to keep working until it's done.”

Christine Yango, Stakeholder Engagement Team Lead

Construction

With all major contractors now active in Papua New Guinea, construction is advancing at the Liquefied Natural Gas (LNG) plant site, along the pipeline route and in the Highlands region. Good progress is being made towards the 2014 start-up window. A major milestone achieved this quarter was the delivery of the final line pipe sections to Kopi Shore Base, with 40,000 sections of pipe for the 292-kilometre main onshore pipeline successfully transported and offloaded without a single safety incident.



Aerial view of the LNG plant site

During this quarter, commissioning testing was completed for the first of two drilling rigs. This rig has since been disassembled for transport and is being mobilized to Papua New Guinea, while the second rig is under construction in the United States.

Table 1 – Contracts and construction highlights

Contract	Contractor	Major activities during the third quarter 2011
Upstream Infrastructure (C1)	Clough Curtain Brothers Joint Venture	Earthworks on the Hides landfill cells completed, and installation of the impermeable liner nearing completion. Completion of the Hides Gas Conditioning Plant (HGCP) medical clinic.
LNG Plant Early Works (C2)	Curtain Brothers Papua New Guinea Limited	Excavations for Train 2 foundations commenced.
Offshore Pipeline (EPC2)	Saipem	Completion and delivery of all offshore line pipe from the production facility in Japan to the pipe coating facility and load out area in Malaysia. Completion of the onshore pipeline trench at Caution Bay.
LNG Plant and Marine Facilities (EPC3)	Chiyoda and JGC Corporation	First concrete foundation poured for the LNG tanks. A quarter of the concrete piles for the marine jetty completed.
Hides Gas Conditioning Plant and Hides Wellpads (EPC4)	CBI Clough Joint Venture	First HGCP foundation piles received on-site and welding activity started. Installation of a waste management area.
Onshore Pipeline (EPC5A)	SpieCapag	Final line pipe shipment for the 292-kilometre onshore pipeline received at Kopi Shore Base. More than 30 kilometres of pipeline stringing and welding achieved.
Komo Airfield (EPC5B)	McConnell Dowell and Consolidated Contractor Group Offshore	Progressed earthworks with more than 600,000 cubic metres of earth moved in August.
Associated Gas Development	Various	Commissioning gas unit arrived in Lae and construction of the unit foundations commenced at the Kutubu Central Processing Facility. Accommodation buildings in Gobe completed.
Drilling (new wells and workovers)	Nabors Drilling International Limited	The first of two drilling rigs mobilized from the United States to Papua New Guinea.

Despite heavy rainfall throughout the quarter, construction of the onshore pipeline progressed, with almost all of the onshore pipeline route surveyed and 103 kilometres prepared for pipe stringing and welding activities. Over 30 kilometres of pipeline stringing and welding was completed during the quarter.

At the LNG plant site, the contractor achieved seven million hours worked without a Lost Time Incident and concluded piling for the LNG offloading platform, while jetty piling continued. Onshore trench works in Caution Bay were also completed for the offshore pipeline. In addition, the Project has relocated the temporary stockpile area for excavated material from the offshore trench to reduce the spread of sediment and minimize the impact of material storage on reef and sea grass beds in Caution Bay.

Meanwhile, the Upstream Infrastructure contractor achieved more than eight million hours worked without a Lost Time Incident. The Upstream Infrastructure contractor also trained 164 Papua New Guinean workers, while the Komo Airfield contractor trained Timalia River Borrow Pit workers, in the Chance Finds Protocol.

Workforce development

In accordance with ExxonMobil's global workplace and labor policy, the Project is committed to providing positive, productive and supportive work environments. Key to this is developing and retaining a highly talented workforce that is representative of Papua New Guinea.

The Project's workforce continues growing in alignment with the needs of increasing construction activity. By the end of September, the Project workforce exceeded 11,000, with Papua New Guineans representing 65 percent of the Project workforce.

More than 7,200 Papua New Guinean citizens employed representing 65% of the Project workforce

The expertise of Papua New Guinean workers is being developed through dedicated facilities such as the Port Moresby Construction Training Facility. To date, the Project and its contractors have trained more than 6,000 Papua New Guinean citizens primarily for construction and support activities and some for future production roles. This equates to more than 700,000 hours of training delivered, with around 200,000 hours completed this quarter alone.

Refresher training courses are being offered to update worker skills for those who have been engaged on the Project for more than 12 months.

Safety, health and security

Partnering with the community remains the foundation of the Project's security strategy. The Project continues encouraging landowners and communities to use the well-established process in place to address and resolve any Project-related concerns.

The difficult operating environment in parts of the Project's area of operations was highlighted this quarter by an assault on an expatriate worker, which resulted in a serious injury. The Project is continuing to work with contractors on enhanced security measures at worksites.

Meanwhile, improved health program reporting and conformance is benefiting the programs implementation. With a clearer picture of health indicators, resources are being allocated to the areas of greatest need. For example, key areas addressed in the quarter were clinical services, malaria and tuberculosis diagnosis procedures, and camp accommodation services.

A Project-funded Safety Champions initiative commenced in September. This initiative provides selected Papua New Guinean workers with additional training and experience so they may positively influence safety in the workplace. Almost 200 candidates were nominated based on their ability to positively influence peers and model good behavior from within the workforce. Initiatives such as this reinforce core safety processes and ensure safety is a central component of the workplace culture.



Toolbox talks communicate job hazards and required safe practices

Social development

Judging of the *Kastom Stori/Sene Gori* competition, launched in the first quarter 2011, was a particular highlight of this quarter. The competition invited students from schools across the Project area to submit stories and artwork that reflect Papua New Guinea's cultural heritage. A total of 3,700 stories and pictures were submitted.



Kastom Stori 'Top 5' entrants from Grade 3 at Lea Lea Primary School



A *Kastom Stori* artwork entry

Meanwhile, the third series of Toea books, called *Toea's Hiri Adventure*, was completed, along with the second *Toea Project Interface* children's book focused on health and hygiene. The health and hygiene activity book contains songs, educational games, coloring-in and key health messages for children.



Second book in the *Toea Project Interface* series – *Toea's Health and Hygiene Megapad*

The Project continues actively targeting economic opportunities for women. During this quarter, the Project was involved in the first Country Gender Assessment workshop to develop an informed understanding of gender-related barriers to poverty reduction and sustainable, inclusive economic growth. The Assessment is a collaboration of public and private partners with civil society and will ultimately support policy development by the Papua New Guinean Government for women's engagement in economic development.

In July, the Project sponsored two Papua New Guinean women leaders, Sarah Kuriva Kaipu, of Gulf Christian Services in Kikori and Turiza Tandago of Papua New Guinea's Angore Women and Youth Development Foundation, to attend a month long Global Women in Management Training Program in Washington, DC. The Project also funded an additional two Papua New Guinean biomedical technicians, from Kundiawa Hospital and Mount Hagen Hospital, to attend the six-month Medisend International Biomedical Equipment Repair Training program in Dallas, Texas.

A number of economic development initiatives created at the beginning of the year also came to fruition this quarter. For instance, through partnering with Cashew International Limited, 15,000 trees were distributed to individuals in the four LNG plant site villages (Boera, Papa, Lea Lea and Porebada). Practical training on how to plant and manage the trees was also provided. Monitoring interest in this project from local communities indicates requests are likely to be received for another 60,000 trees.

Materials also arrived in Kikori for the construction of the Delta Green Field Marketing Women's Group nursery in the Omati area. This nursery will provide local women with knowledge and practical experience in new varieties of fruit and vegetables for supply to construction camps in Kikori.

Developing Papua New Guinean businesses

Support for developing Landowner Companies (Lancos) continues, with the assistance of business development officers in the field, the Institute of Banking and Business Management Enterprise Centre and Project contractors. The Project-related spend with Lancos by the end of September exceeded 500 million Kina (US\$223 million). Papua New Guinean businesses other than Lancos are also providing goods and services to the Project.

The Project's total in-country spend-to-date exceeds 3.3 billion Kina (US\$1.5 billion).

28 business opportunities with Project contractors posted on the PNG Supplier Database

In the meantime, the Enterprise Centre has supported 9,900 Papua New Guinean businesses and achieved more than 2,750 days of training. This quarter, the Centre's new business mentoring program welcomed its first participants and launched a new Fundamentals of Business Management course and Director Training Level 2 course.

Environmental performance

In addition to regular Project and Lender Group's Independent Environmental and Social Consultants (IESC) inspections and verifications, contractors are conducting independent assessments of their activities. For example, the Upstream Infrastructure contractor is auditing spills and corrective action responses.



Ground Orchid *Spathoglottis parviflora*

These continuous efforts of the Project and its contractors to prevent incidents, and a particular focus on spill prevention, resulted in a decline in the number of environmental incidents Project-wide during the quarter, compared with the previous two quarters.

Advances were also made following a Project-wide waste management review completed in the first quarter 2011. Construction of the Hides Waste Management Facility is progressing well with the installation of the lined landfill, a wetland filter for the leachate treatment facility and facility roads completed.



Hides Waste Management Facility construction progress

Maintaining erosion and sediment control devices remains a challenge across the Project, particularly in areas where rainfall is high and earthworks are extensive. Contractors are conducting ongoing inspection and maintenance of existing devices, and installing new erosion and sediment control devices in areas of recent work, as part of their mitigation measures.

Stakeholder and community engagement

The Papua New Guinean Government is working to place Government officers in the field. These officers will liaise with relevant Government departments to provide early attention to issues raised by the community that require Government support.

In August, a LNG plant site tour was conducted for the Minister for Environment and Conservation and the Environmental Council, to demonstrate the scope of the LNG plant site and of the environmental standards maintained by the Project. The Project also hosted delegates from the Ministry of Education at the Port Moresby Construction Training facility to showcase Project-sponsored training activities.

At this stage, communities impacted by Project activities have a general awareness of the Project, so engagement activities focus on providing information about specific construction activities and encouraging two-way dialogue. Discussing future Project activities with communities helps develop positive relationships and identifies potential concerns while activities are still in the planning phase.

For example, as may be expected with a project of this scale and complexity, and in a country with customary land rights, many community concerns relate to compensation for land access. The Project's resettlement program is helping affected people benefit from livelihood restoration, which is recorded through ongoing monitoring and evaluation in consultation with the communities.

The Project recognizes the importance of reinforcing construction safety messages and exclusion zones with communities. This quarter, to help ensure the safety of fishers and other marine users, the Project's Socioeconomic team published 'no-go' zone onshore and offshore access timetables that will apply during construction of the LNG plant site jetty. These colorful pocket-sized cards are printed on waterproof paper and published in Tok Pisin as an easy-to-use reference for marine users.

The use of drama as a culturally powerful way to communicate safety and other messages with communities is proving so successful that this scope has been expanded to include national contractor and Lanco employees as a way of drawing attention to worker safety.

22 drama performances
held in **25** communities with
more than **3,000** viewers



Communicating safety and other messages through the play *Laif Bilong Ba'amo, Ges Paipain* (The Life of Ba'amo, the Gas Pipeline)

Approaching the 24-month point since the final investment decision is an important milestone. However, it is the relationships developed with the people of Papua New Guinea, the privilege of living and working in this extraordinary country and the firsthand experience of diverse cultures that will be the enduring highlights for many in the Project's team.





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