

**PNG LNG Quarterly
Environmental and Social Report
Second Quarter 2010**



PNG LNG

Energy for the World. Opportunity for Papua New Guinea.

Rising to the Challenge

”Helping to bring Papua New Guinea’s natural gas to the global market while balancing economic growth, environmental protection and social development demands the integration of ingenuity, integrity, innovation and reliability with an unwavering commitment to delivering on our promises.”

Peter Graham, Managing Director, Esso Highlands

This second Papua New Guinea Liquefied Natural Gas (PNG LNG) Project (the Project) Environmental and Social Quarterly Report demonstrates how Esso Highlands Limited, as operator of the Project, is delivering on commitments in the areas of safety, security, health, environment and social management.

Esso Highlands Limited (Company), a subsidiary of Exxon Mobil Corporation, is constructing and will operate the Project on behalf of the co-venturers – Oil Search Limited, Kroton No. 2 Limited, Santos, JX Nippon Oil and Gas Exploration Corporation, Mineral Resources Development Company and Eda Oil.

The Project is still in the early stages of the four-year construction period. Key activities during this quarter (April–June 2010) included further establishing Project teams and necessary infrastructure within Papua New Guinea. The Project continued pre-construction biodiversity and cultural heritage surveys, engaged with stakeholders throughout the Project Impact Area and promoted business and training opportunities within Papua New Guinea.

Quarterly Project status briefings were established to ensure a continuous and transparent flow of information to elected Papua New Guinean officials, including both members of the National Government and the opposition parties. The Project is working with the Government to ensure agencies such as the Department of Labour and Industrial Relations and Immigration and Citizenship Service (part of the Department of Foreign Affairs) have the infrastructure and resources to manage the requirements for successful Project execution.

Construction activities during the quarter focused on improving and upgrading infrastructure, including road and bridge works, telecommunications, and constructing camps to house the construction workforce. Detailed engineering, execution planning and procurement activities for other aspects of the Project also progressed.

Table 1 – Contracts and main construction activities

Contract	Contractor	Major Activities During the Second Quarter 2010
Upstream Infrastructure (C1)	Clough Curtain Brothers Joint Venture	Infrastructure activities at a number of work fronts including: <ul style="list-style-type: none"> • Wharf and laydown at Kopi. • Bridge and road works on Northern and Southern Logistics Routes. • Camp construction and site clearing activities.
	Telecommunications (EPC1) – TransTel Engineering	Installation of telecommunications infrastructure for both the construction and operational phases.
LNG Plant Early Works (C2)	Curtain Brothers Papua New Guinea Limited	LNG plant site Pioneer Camp construction, and associated power and utilities. Upgrade of the Lea Lea Road. LNG plant site bypass road and fence installation.
Offshore Pipeline (EPC2)	Saipem	Detailed engineering and execution planning at the contractor’s office in Singapore.
LNG Plant and Marine Facilities (EPC3)	Chiyoda and JGC Corporation	Detailed engineering, procurement and execution planning at the contractor’s main execution office in Yokohama.
Hides Gas Production Facilities and Hides Wellpads (EPC4)	CBI Clough Joint Venture	Detailed engineering, procurement and planning at the contractor’s main project offices in Singapore and Brisbane.

Contract	Contractor	Major Activities During the Second Quarter 2010
Onshore Pipelines and Infrastructure (EPC5A)	SpieCapag	Detailed engineering and execution planning. Fabrication of all uncoated onshore line pipe. Construction of temporary bush camp near Kopi started.
Komo Airfield (EPC5B)	McConnell Dowell and Consolidated Contractor Group Offshore	Detailed engineering and execution planning. Pioneer Camp construction and site clearance activities.
Oil Search Limited Associated Gas Development	Aker Solutions	Detailed engineering design work, equipment procurement and execution planning for upgrades of the Kutubu Central Processing Facility and the Gobe Production Facility.
Drilling (new wells and workovers)	Nabors Drilling International Limited	Detailed drilling and completions engineering design. Execution of contract for the supply of drilling rigs and commencement of additional contracting and procurement activities.
Port Moresby Construction Training Facility	Eos	Ongoing construction and fit out of training facility.

ENVIRONMENTAL PERFORMANCE

The Project's approach to environmental protection begins with a thorough understanding of the physical surroundings and operating environment with the goal of minimizing the Project footprint.

To continue the efforts in this area, this quarter the Project Environmental Field team was expanded to enable site verifications across all active construction worksites.

At the end of this quarter, approximately two thirds of the overall survey program and one third of the onshore pipeline survey were complete. Around one third of the pre-construction survey reports (addressing archaeology and cultural heritage, ecology, weeds and water quality) were submitted to the Department of Environment and Conservation, Papua New Guinean Government and acceptance was secured.

Significant effort is being invested in organizing, completing and reporting on surveys. To date, a team of approximately 50 environmental and cultural heritage specialists have completed pre-construction surveys on an area of approximately 4000 hectares.

Pre-construction survey results proved valuable in the decision-making process regarding the location for a quarry to supply aggregate needed for the Kopi shore base. A total of 17 potential locations were surveyed for ecological or cultural sensitivities before the final location was selected.

4000
hectares surveyed in pre-construction biodiversity and cultural heritage surveys

Biodiversity of Papua New Guinea – Native Turmeric, Long-beaked Echidna and Common Green Birdwing Butterfly



The Project also recognizes the importance of evaluating how activities may affect local freshwater availability and demand in communities within the Project Impact Area. Environmental assessments were completed prior to water extraction at six sites this quarter. All assessments confirmed that water use would be less than ten percent of flow, thereby not affecting downstream users or habitat. Meanwhile, erosion and sediment control continued to be monitored, with devices installed throughout the Project Impact Area. This quarter, the Project re-established the disused Gobe to Mubi River road, which has over 30 river crossings. Erosion and sediment control devices were installed at all culverts, and due to heavy rainfall in the area, these will be checked and maintained on an ongoing basis.



Limiting the spread of invasive species is another environmental focus for the Project. Prior to starting a site clearance, weed, plant pathogen and pest surveys are completed to prevent the inadvertent spread of weeds and pests to environmentally undisturbed areas. This quarter, surveys identified a number of mitigation measures needed to protect sites along the major transportation routes. Measures were put in place and will be regularly checked to ensure their continuing success.

Spill prevention training session



The Project Biodiversity Strategy is progressing with a steering committee formed to direct formal consultation with stakeholders. Preliminary engagement commenced with conservation organizations and research institutions in Papua New Guinea and other countries, so that the offset component of the Strategy can be developed further. Other activities included establishing 'no go zones' and a remote sensing system for monitoring potential indirect impacts such as fire, deforestation and agricultural conversion of natural habitat.

This quarter, communicating expectations, measuring progress and striving for continuous improvement in environmental performance led to the Project launching a leadership challenge on spill prevention. The challenge included a program of training and awareness raising activities for maintenance crews, equipment operators, spotters and supervisors. A key component of the program was establishing an understanding of the importance of reporting all spills, regardless of how small they may be. It has contributed to a reduction in the number of spills per month and liters released per spill for both May and June 2010.

This quarter, 150 site environmental verifications were completed across all construction worksites. The results included one Level II non-conformance related to spill prevention and seven Level I non-conformances for spill prevention, waste, ecology, weeds, plant pathogens and pests and raw materials management. There were also 93 field observations and 35 positive field observations. Corrective actions have been designated for each non-conformance and field observation with the majority of actions implemented. The process for tracking and closing-out non-conformance and field observation corrective actions has improved with the addition of a 30-day close-out timeframe. Higher risk non-conformances will usually generate a faster corrective action response.

150
environmental site
verifications

A consistent and ongoing effort is being made to ensure appropriate waste management continues, with the first Project operated waste incinerators installed at the Oiyarip and Moro B camps. Storage of solid and restricted waste and use of Project approved third party incinerators for non-restricted waste continues at other camps. Recycling opportunities are limited but are being investigated. Predominant waste materials generated in the second quarter were general construction debris, paper and cardboard, plastics and insulation, scrap metal and wood. Restricted waste consisted of oils, paint, medical waste and empty containers. During the quarter, five wastewater treatment plants were installed. Water discharge monitoring commenced and demonstrated that stabilization was achieved following an initial set-up period. This was required to build up bacteria within the treatment units.

World Environment Day activities at Komo



SOCIAL DEVELOPMENT

The Project's efforts to contribute to economic growth focused on a variety of support and incentive programs to help strengthen the local economy through skills development, job creation, purchase of local goods and services, and creating opportunities for investment. Collectively, this approach is termed national content development.

In April 2010, the Project opened the new Enterprise Center in temporary premises at the well-known Papua New Guinea Institute of Bankers and Business Management in Port Moresby; to help Papua New Guinean Landowner Companies strengthen their business management skills. To date, there have been more than 1,750 visits from Papua New Guinean entrepreneurs who have sought information about the Project and more than 700 businesses have registered with the PNG LNG Supplier Database. This database, available at www.pnglng.com, provides access to domestic company profiles, business assessment summaries, domestic business-to-business opportunities and Enterprise Center events. A Shareholders Information Program has also been developed, aimed at improving understanding about the rights and obligations of directors to their shareholders.

A children's library established at Koki market in Port Moresby



During the second quarter, the Project invested more than 460 million Kina (US\$170 million) in Papua New Guinean service contracts for the supply of goods and services.

**460 million
Kina invested with
local companies**

Recruiting and training Papua New Guinean citizens is another key component of the Project's National Content Plan. It is expected the Project will require a peak of approximately 12,000 workers, about one third of which will be Papua New Guinean citizens.

By the end of the second quarter, more than 2,300 citizens were

employed, representing approximately 80 percent of the Project's total construction workforce. Workers were sourced from across the Project region including Gobe, Kopi, Kantobo, Hides, Komo, Moro and the LNG plant site areas, as well as other areas of Papua New Guinea such as Port Moresby, Mendi and Lae.

**2,300 PNG nationals
employed representing
80% of the total
construction workforce**

By helping develop the technical and professional skills, the Project can maximize the number of local employment opportunities and increase the percentage of national employees. While construction

**1st trainees
graduate
17% women**

continues on two new permanent construction training facilities at Juni and adjacent to the existing Port Moresby Technical College (POM Tech), a temporary training facility has been established. The first class of 48 trainees, recruited from four community areas near the LNG plant site, commenced an eight-week training program in late April 2010. The training curriculum is aligned with the requirements for civil construction laborer qualifications and all 48 trainees, including

eight women, graduated in late June 2010. Since then, two more groups of 48 citizens have commenced training, including 11 women in total.

The Project continues to engage in two-way dialogue with groups and individuals in the Project Impact Area. On the Northern Logistics Route, stakeholder engagement focused on the Road Maintenance And Bridge Building Program for the Highlands Highway, and over 4,300 stakeholders registered attendance at 18 community meetings. Meanwhile, following two years of Project-community interaction in the Hides and Komo region, formal engagement with stakeholders began in June 2010 with more than 1,500 community members participating in 11 meetings.

Textbooks being loaded onto a helicopter at Tari Airport for delivery to remote schools



The Land and Community Affairs team continued working with landowners in relation to land access, legacy issues and compensation to ensure free, prior, and informed consent. Approximately 1,250 field trips and 600 meetings held this quarter helped landowners understand the need for the Project to secure land access for construction. Landowners were provided with information on construction schedules, nature of the work, potential impacts, requirement for local labor hire, rates of pay and duration of employment.

Resettlement milestones achieved during the quarter included relocation of more than half of the households at the Komo Airfield, and there were substantial resettlement activities taking place at five other sites.



The Project's Community Grievance Procedure, aimed at receiving, assessing, tracking and addressing any concerns raised by the community about the Project was communicated to residents in the Project areas, with materials provided to the community in English and Tok Pisin. Grievances continued to be managed in the field and those related to resettlement compensation were addressed through active negotiation to achieve mutually agreed outcomes. The Project has commenced the roll-out of an electronic system, which will help centralize grievance recording, analysis and closure across the wide geographical extent of the Project and be more readily accessible to Project personnel involved in grievance management.

The Project remains committed to conducting business in a manner that protects and promotes the safety and health of employees and the communities where it operates. At Project sites, extensive work was undertaken during the quarter to reinforce safety expectations, building a workforce culture of incident prevention, monitoring contractors as they implemented safety plans, mobilizing additional safety staff to support safety planning and oversee execution, and engaging safety staff alongside contractors to develop safety planning deliverables for upcoming work scopes. Due to prevalence rates, foot hygiene and tuberculosis remain focus areas for the Project's health team. Outside the facilities fence line, the Project is implementing road safety signage and a Traffic Education Program for communities where traffic levels are high, such as around the Hides Gas Conditioning Plant.

This quarter, a cholera outbreak emerged in Port Moresby and surrounding areas. The Project established a Cholera Response Working Group to identify measures to prevent further spread of the disease. Initiatives such as publishing prevention-related materials for employees and contractors, establishing a screening process upon camp entry, ensuring adequate hand washing facilities were available and establishing cholera triage areas, helped ensure there were no reported cases of cholera at any Project worksites. Through a partnership with the Salvation Army, the Project also helped establish a cholera care clinic in Port Moresby for the wider community.

The Project also made a commitment during the quarter to sponsor the Papua New Guinea Institute of Medical Research's Pneumonia Colloquium to be held in Goroka, August 23–26, 2010, convened in partnership with the World Health Organization and the Papua New Guinean National Department of Health. In Papua New Guinea, pneumonia is the number one killer of children under the age of 12 months, and from years one to five, it is second only to malaria. The colloquium will recognize achievements gained in Papua New Guinea during the past 40 years of research and define a path forward to reduce pneumonia's impact on the country.

14,000 anti-malarial bed nets distributed in the Project Impact Area in partnership with Rotarians Against Malaria

In addition to preserving human health, the Project is committed to helping preserve Papua New Guinea's cultural heritage. The Chance Finds Protocol under the Project Cultural Heritage Management Plan provides guidance on managing unknown or unrecorded archaeological sites during the construction phase. The Chance Finds Protocol was activated five times during the second quarter. The most interesting find was a stone bowl, dated at 7000 years old, found at Juni. Called a 'devil stone', the find is believed to have spiritual significance to the people of this region and to have been passed down throughout generations. As the protocol specified, work was stopped, the site was cordoned off and an archaeologist called in to inspect the find and determine its significance. No further artifacts were found in the area enabling work to recommence once the devil stone was removed. It will be passed to the Papua New Guinea National Museum and Art Gallery.

The 'devil stone' found at Juni





PNG LNG

www.pnglng.com

Port Moresby - Project Headquarters
Esso Highlands Limited
Level 5, Credit House, Cuthbertson Street
GPO Box 118
Port Moresby NCD
Papua New Guinea

Email: miles.j.shaw@exxonmobil.com

ExxonMobil

PNG LNG is operated by a subsidiary of
ExxonMobil in co-venture with:



OIL SEARCH LIMITED

Kroton No. 2 Limited

Santos
We have the energy.



JX Nippon Oil & Gas Exploration

