

**PNG LNG Quarterly
Environmental and Social Report**

**First Quarter
2012**



PNG LNG

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



Building a sustainable future for Papua New Guinea

“As the PNG LNG Project enters its third year of construction, our work with communities is focused on enabling them to develop their local capacity and skills that will drive long-term economic and social benefits for Papua New Guinea.”



Decie Autin, Project Executive, Esso Highlands Limited

A key principle of the Papua New Guinea Liquefied Natural Gas (PNG LNG) Project's (Project) National Content Plan is delivering long-term social and economic sustainability for the people of Papua New Guinea.

In the past two years, the Project has worked to build relationships with many community, government and non-government stakeholders and has provided support to communities in the Project impact area through implementation of the Project Community Development Support Plan.

In this ninth PNG LNG Quarterly Environmental and Social Report, Esso Highlands Limited continues to demonstrate how, as operator of the US\$15.7 billion Project, it is delivering on the Project's social, environmental, health and safety commitments. Esso Highlands Limited, a subsidiary of Exxon Mobil Corporation, is responsible for the Project's construction and operation and is developing the Project with 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.

Social development

As part of its commitment to promoting the long-term economic and social sustainability of communities in the Project impact area, the Project is identifying local institutions and individuals able to drive and lead the development of their respective communities.

For example, the Project continues to support the Delta Green Field Marketing Limited women's group with the development of their vegetable farming business. Following vegetable farming skills taught to the women's group during the fourth quarter 2011, the Project provided materials for the construction of a nursery, which was completed this quarter in the Omati area. The nursery was built by the local community for the women's group who will use it to train their members in growing different fruit and vegetable varieties. Cuttings and plantings from this nursery will also be distributed to other local women to grow in their own vegetable gardens.

Personal Viability training was also expanded to the LNG plant site communities this quarter to provide tools for improving livelihoods and managing social issues. To date, more than 250 people have participated in the training which covers: respect for others, promoting positive thinking, budgeting for family needs and making money.

Building education resources remains a high priority for the Project, with a three-year 'Box of Books' school library program launched this quarter. This project will benefit 52 primary schools in the Project impact area. Each school will receive two cabinets filled with books, along with training for two teachers/librarians. Eight teachers from schools in the four LNG plant site villages have already completed five days of training on how to manage their school libraries.

A total 180 desks, built by local contractors, were also delivered to five primary and elementary schools in Hides, while 545 desks were delivered to 15 primary schools along the Highlands Highway, including every primary school from Mendi to Tari.



Students of Halimbu Elementary School with their new school desks

Meanwhile, the third installment of the Toea Project Interface series, titled *Toea and the LNG Project*, was published this quarter. The Toea Project Interface series provides interactive learning tools for students, with past titles including *Toea's Road Safety Activity Pack* and *Toea's Health and Hygiene Megapad*.

Empowering women is another area the Project continues to emphasize. In celebration of International Women's Day, the Project funded the Business Professional Women's Club of Port Moresby to provide scholarships to underprivileged girls in tertiary and secondary schools throughout Papua New Guinea. This organization has proudly assisted hundreds of Papua New Guinean girls and women, who would otherwise not have been able to continue with their education.

In February, with support from the Project, the World Bank entered an agreement with the Papua New Guinean Chamber of Mines and Petroleum to implement the Women's Resilience Program. This Program aims to enhance women's ability to productively enter the informal employment sector – the largest in Papua New Guinea. World Bank consultants will deliver training to women in the Upstream and LNG plant site communities on topics such as basic financial skills, family life improvement skills and income generation through farming, sewing, baking or similar activities.

An important Papua New Guinean Government initiative was the passing of the *Sovereign Wealth Fund Law* by the Papua New Guinean Parliament in February. The Fund's purpose is to insulate government spending from the volatility associated with income from natural resource projects. Associated goals are ensuring transparency, accountability and good governance.

Early this quarter, the Papua New Guinean Government also took important steps toward implementing the Extractive Industries Transparency Initiative – a global standard that promotes transparency by monitoring company payments and government revenues at a country level. This included sponsoring a workshop held over two days in Port Moresby,

where World Bank and Extractive Industries Transparency Initiative representatives outlined the goals of the program and discussed steps to advance the initiative with representatives of civil society, industry and the Papua New Guinean Government.

Construction

The Project's construction is progressing well and in line with the schedule. Numerous milestones were achieved during this quarter including: reached 50 percent of the Komo Airfield's bulk earthworks; completion and delivery of the second drilling rig; completion of the second of four horizontal directional drilling operations; finalization of the offshore pipeline detailed design; and a record 453 truckloads of equipment moved from Lae to Hides in one month.

10,000th weld for the onshore pipeline completed

During this quarter, the Upstream Infrastructure contractor, who achieved over ten million work hours Lost Time Incident free, was recognized by the Project for excellence in worker involvement in safety, effective subcontractor management and collaboration and teamwork.

In addition, the Esso Highlands Limited ground transport workers achieved an outstanding safety record of over 7.5 million kilometres driven by a fleet of more than 125 passenger vehicles with no Lost Time Incidents.

Table 1 – Contracts and construction highlights

Contract	Contractor	Major activities during the first quarter 2012
Upstream Infrastructure (C1)	Clough Curtain Brothers Joint Venture	Completion and handover of multiple areas of the HGCP to the Hides Gas Conditioning Plant and Hides Wellpads contractor.
Offshore Pipeline (EPC2)	Saipem	Detailed design for the pipeline completed. Installation of 320 kilometres out of 344 kilometres of the deep-water portion of the offshore pipeline completed.
LNG Plant and Marine Facilities (EPC3)	Chiyoda and JGC	Over half of the process area steel erected and half of the pipe fabricated and installed on Train 1. Eighty percent of piling for the marine jetty completed.
Hides Gas Conditioning Plant and Hides Wellpads (EPC4)	CBI Clough Joint Venture	Final check of the site's detailed design completed. Piles for foundations completed in multiple areas.
Onshore Pipeline (EPC5A)	SpieCapag	Completion of the 10,000 th weld and the second of four horizontal directional drilling operations.
Komo Airfield (EPC5B)	McConnell Dowell and Consolidated Contractor Group	Reached 50 percent of the Komo Airfield's bulk earthworks and achieved record productivity of earthworks.
Associated Gas Development	Various	Engineering for the associated gas facilities completed. Triethylene glycol unit completed.
Drilling (new wells and workovers)	Nabors Drilling International Limited	Completion and delivery of the second drilling rig to Papua New Guinea.



Offshore installation vessel Semac 1

This quarter, pre-construction surveys were completed for supporting infrastructure for the onshore pipeline. The surveys covered areas such as valve stations, drilling platforms and access roads. Pre-construction surveys assess areas of ecological interest, weeds and water quality at Project worksites, while identifying potential archaeology and cultural heritage sites. The only pre-construction survey remaining is on the 24.8-kilometre Hides Spine.

Workforce development

The Project has reached a major workforce development milestone with more than one million hours of training now provided to the Project's workforce, including over 164,000 training hours this quarter alone.

With construction activity at its peak this year, the Project workforce stands at more than 16,200 people. The total number of Papua New Guinean citizens trained to date for both construction and production roles across all Project sites reached more than 8,500.

16,200+ people make up the total Project workforce

In January, the first intake of Operations and Maintenance trainees from the Production Operations Training Centre in Port Moresby left for Nova Scotia, Canada to undergo one year of Advanced Skills training. At the end of 2012, they will return to Papua New Guinea to complete the final phase of their program, which involves on-the-job training at the LNG plant site and Hides Gas Conditioning Plant (HGCP) for their specific trade specialty.

At the Juni Construction Training Facility, the first intake of trainees graduated in March with an Australian Quality Training Framework standard Certificate II in General Construction and Civil Construction. Meanwhile, the second intake of 20 trainees commenced their training program in January.

Also in January, Jason Maisasa from the Papua New Guinea Institute of Medical Research (IMR) was selected to undertake the Biomedical Equipment Repair Training program in Dallas, Texas, through MediSend International. Jason will become the fifth Papua New Guinean to benefit from this program and will return from his training with specialized skills to support the IMR and other health centers in the Highlands.

Growing Papua New Guinean businesses

To date, more than 880 million Kina (US\$424 million) has been spent with Landowner Companies (Lancos) for all Project-related activities. This quarter, 195 million Kina (US\$94 million) was spent with Lancos representing an increase of 30 percent from the previous quarter. The total in-country Project-related spend to date is now over 4.3 billion Kina (almost US\$2.1 billion).

4.3+ billion Kina spent in Papua New Guinea to date

In its two and half years of operation, the Enterprise Centre has supported more than 1,300 local businesses with training and business development programs.



Air Niugini and Esso Highlands Limited officials gathered at Jacksons Airport, Port Moresby to farewell trainees departing to Canada

Safety, health and security

The Project experienced a fatality this quarter when a contractor supporting quarry operations was struck by a front-end loader. The Project expresses deepest sympathies to the family, friends and fellow workers of our team member. An investigation team was mobilized and the appropriate authorities notified. Various Project-wide measures and initiatives, including highlighting safety awareness about construction traffic, have been implemented in an effort to prevent a similar recurrence.

Papua New Guinean landslide

The Project, as well as many others, has assisted Papua New Guinean citizens following the Tumbi landslide from which many people lost their homes and their lives.

The landslide occurred near the Hides and Komo areas on January 24, 2012. Landslides occasionally occur in the Papua New Guinean Highlands and the Papua New Guinean Government is investigating the cause of this incident.

While Project personnel and facilities were not directly affected, Project teams provided support to the local community and to the Government-led rescue effort. This included providing accommodation at the Juni Construction Training Facility, and vehicles, storage facilities and an operations center for those associated with the recovery/relief effort. The Project also assisted with rations, tarpaulins, water and lighting equipment for the local community. In addition, the Project provided further assistance by donating heavy equipment for use in the Government's response effort and for reinstatement of the road to reconnect Komo to the Highlands Highway. With road transport to Komo cut off by the landslide, the Project facilitated helicopter transport of urgent medical supplies to the Malanda Health Centre. In addition, the Project donated 135,000 Kina (approximately US\$65,000) to the Salvation Army to support relief work in the disaster area.

During this quarter, security incidents in the Komo area escalated into community disruption. This situation was investigated and resolved with additional security measures implemented to minimize risk to Project personnel. For example, the Project has: improved radio communications; enhanced vehicle safety and journey management measures; and revised emergency response procedures to protect workers. With increasing construction activity in the Hides and Komo areas, the Project has increased community consultation in these areas to keep communities informed of Project activities and provide feedback from these communities to Project teams.

The Project also enhanced health initiatives this quarter to improve the prevention, diagnosis and treatment of illnesses such as malaria and tuberculosis. For example, the Project sponsored a World Health Organization Grade 1 specialist to conduct technical training in reading malaria slides and to assess the Project and selected Papua New Guinean community health laboratories for World Health Organization accreditation.

The Project continues to work with communities, the Papua New Guinean Government and non-government organizations on sustainable health services for Papua New Guinean citizens in the Project impact area.

Construction of the National Infectious Disease Diagnostic and Research Laboratory began this quarter with a groundbreaking ceremony held for the upgrade of the University of Papua New Guinea School of Medicine and Health Sciences biomedical laboratory in Port Moresby. Managed by the IMR with support from the Project and the University of Papua New Guinea School of Medicine and Health Sciences, the laboratory will provide advanced training for Papua New Guinean scientists. It will also play an important role in rapid diagnosis to help prevent outbreaks of infectious diseases.

Environmental performance

In March, the Lender Group's Independent Environmental and Social Consultant (IESC) conducted its sixth site audit, visiting worksites and meeting with Project workers and members of relevant communities to monitor the Project's conformance with its environmental and social commitments. During the visit, an agreement was reached between the Project and IESC to postpone the submission of the final Project Biodiversity Offset Delivery Plan from December 2011 to December 2012 to allow time for stakeholder feedback to be fully integrated.

Findings from the IESC's visit will be published on the Project website once completed. In the interim, the IESC has released a report from its fifth site visit, conducted in November 2011.

As waste management is central to the Project's commitment to continuous improvement in environmental performance, the official opening of the LNG plant site landfill was an important achievement this quarter.



Tree planting ceremony celebrating the official opening of the LNG plant site landfill

Agreements were also reached between the operator of the landfill and all other contractors to clearly define waste sorting, segregation and handling expectations and responsibilities for users of the facility.

The Project's spill rate for this quarter continues to show improvement from 2011. Despite an increase in work hours, the number of spills decreased by more than 50 percent during this quarter. This achievement was marked by the publication of a Safety, Security, Health and Environment (SSHE) Alert summarizing the spill prevention keys to success.

The Onshore Pipeline contractor has commenced preliminary construction activities within the Lake Kutubu Wildlife Management Area. Construction environmental management measures were explained to workers during kick-off meetings and are reinforced through daily toolbox talks.

The Project's water taskforce, formed in the fourth quarter 2011, began working with contractors this quarter to address water-related community concerns and review water implementation plans, catchment proposals, community water system progress and water quality. Meanwhile, the Project continues to maintain water extraction volumes within the annual limit set in the Project Environment Permit, with no additional extraction permits sought this quarter.

The Project has also provided support to the Piku Conservation Project, which is focused on raising awareness about the threatened Pig Nosed Turtle species.



Piku – the Pig Nosed Turtle

Stakeholder and community engagement

In addition to reinforcing construction and traffic safety messages with the community, the Project's Socioeconomic team is increasing its focus on helping to build the skills and resources of communities in the Project impact area.

For example, with Project support, the Community Development Initiatives (CDI) Foundation installed the recently purchased generator that will power their office and revive their former radio station, CDI-FM.

The station broadcasts locally-produced radio programs throughout Project areas. This support will help to create employment and improve communications for communities in this area.



Traffic and pedestrian safety awareness session in Tamadigi

As Project-related activities continue, the Socioeconomic team has been engaging with communities to build relationships and trust, as well as working with other Project teams in Port Moresby and field teams to ensure all grievances are resolved appropriately and effectively. This quarter, 132 grievances were registered, showing a proportional increase with increased work activity as compared to the previous period, with 117 grievances closed. Closing grievances within the 30-day has been challenging given the time it takes for grievants to confirm in writing that they are satisfied when an issue has been resolved.

The Project also continues engaging with the Papua New Guinean Government to keep officials informed of the Project's progress. During this quarter, Papua New Guinea's Department of Petroleum and Energy deployed field officers in the Upstream South (Gobe and Kantobo) and Upstream North areas to manage issues and grievances that require action by the Government. The Project is meeting regularly with the Department of Petroleum and Energy to help address Project-related issues as they arise.

27,500+ people participants
in engagement activities to date

As the Project works to help build economic and social sustainability with the people of Papua New Guinea, community interest as well as concerns continue to be welcomed in order to enable the Project to address these quickly and to keep all stakeholders informed of the progress being made.





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