

Quarterly Environmental and Social Report

Second Quarter 2011



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Growing our Papua New Guinean workforce – exceeding expectations

“As a company, we have long recognized that making the most of energy resources is about more than oil and gas production – it’s also about developing people and capacity, and creating and delivering long-term benefits to local communities.”

Peter Graham, Managing Director, Esso Highlands Limited

Executive Summary

The successful construction of the Papua New Guinea Liquefied Natural Gas (PNG LNG) Project (Project) relies on developing a workforce with the right balance of skills and experience. The Project’s commitment to local skills development is demonstrated through creating local jobs; educating and training national employees, contractors and suppliers; transferring knowledge and skills; buying local goods and services; and assisting communities through strategic investments. This quarter, the Project made significant progress in all of these areas.

This is the sixth 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.

Workforce development

Building the skills of Papua New Guinean workers through training is part of the Project’s National Content Plan, and an opportunity to leave a lasting, positive legacy for Papua New Guinea.

Across the Project, there is a wide scope of training offered, including formal classroom training and on-the-job training, to enhance the skills and knowledge of the Papua New Guinean workforce for both their current roles and future employment opportunities either with the Project or elsewhere. In addition to developing the workforce through direct and contracted employment, the Project offers a graduate program, the Operations and Maintenance Training Program and internships.



Rausi Doko, Village Recruitment Officer, Lea Lea

“I am very, very interested in this Project because new things are happening. For example, young ones are working. And the biggest thing is the living standards of people are changing.”

Based on: *Landowners on LNG project impact* (2011). Radio Australia. July 1, 2011.

Project contractors also provide extensive training programs. For example, this quarter the LNG Plant and Marine Facilities contractor selected nine Papua New Guinean engineering trainees for a one-year program at their engineering center in Yokohama, Japan. They will receive on-the-job training in mechanical, electrical, instrumentation and project controls to prepare them for engineering work at the LNG Plant.

Meanwhile, the Offshore Pipeline contractor is sponsoring a 16-month training program for 40 young adults from Kido Village and the Omati River area. The students will learn basic trade skills in air-conditioning and refrigeration, metal fabrication, carpentry and joinery, and plumbing. This will allow them to help their communities in the future, and provide ongoing employment opportunities beyond the Project.

As driver and operator safety is a priority for the Onshore Pipeline, this contractor is delivering a three-phase training program tailored to the requirements of heavy equipment operators and heavy and light vehicle drivers.

Project training opportunities are preparing Papua New Guinean workers for the rapidly increasing construction activity at the LNG Plant and the Hides Gas Conditioning Plant. In line with increasing activity, the Project workforce grew to 9,300 by the end of June, up 30 percent since the previous quarter. More than 6,600 workers are Papua New Guinean citizens, representing 71 percent of the total Project workforce. This number significantly exceeds Papua New Guinean national workforce forecasts developed prior to Project financial close. Landowner Companies (also referred to as Lancos) continue to be the primary source of Papua New Guinean labor, accounting for more than 73 percent of recruits.

More than 6,600
Papua New Guinean citizens employed
representing 71% of the Project
workforce

Women are also receiving more training and employment opportunities. At the end of June, the Project employed approximately 840 females including 700 Papua New Guineans.

Pre-construction activities

Building on previous progress, the main pre-construction survey effort in this period concentrated on the Onshore Pipeline, with approximately 80 percent of the 292-kilometre main pipeline route surveyed to date. Cultural heritage sites continue to be identified during pre-construction surveys and are avoided or impacts mitigated in accordance with the Cultural Heritage Management Plan. For example, five sites identified in previous quarters were monitored throughout the second quarter to minimize risk of disturbance.

As part of the Project’s Chance Finds Protocol, trained local archaeological spotters monitor earthworks and land disturbance activities, identifying any artifacts, bone remains and fossilized materials that are uncovered.

80%
of the 292-kilometre main pipeline
route was surveyed

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Other sites or areas with cultural significance such as oral tradition sites, burial grounds, historical warfare grounds, and women's or men's houses are managed in compliance with the Project's Cultural Heritage Management Plan.

Construction

The Project is making good progress towards the 2014 start-up window with a number of construction milestones achieved this quarter. This included the first pipeline weld on the 292-kilometre onshore pipeline, which together with the offshore pipeline will reach more than 700 kilometres, completion of the first drilling rig, the start of piling at the LNG Plant marine jetty and completion of work at the Juni Construction Training Facility.



First pipe weld for the onshore pipeline

In addition, offshore pipeline works started with construction on the Caution Bay pipeline shore approach support site including the installation of a small construction yard and fencing.

With offshore pipeline works starting this quarter, the contractor is mobilizing into Papua New Guinea in anticipation of pipe laying activities commencing late in the year. Meanwhile, infrastructure works in the Kikori and Gobe areas are nearing completion, so equipment and personnel are relocating to the Hides area to work on the Hides Gas Conditioning Plant site.

The Upstream Infrastructure contractor continues their noteworthy safety performance with over seven million work hours achieved without a Lost Time Incident. The Komo Airfield contractor also celebrated four million hours worked without a Lost Time Incident.



Decie Autin, Project Executive, Esso Highlands Limited at the ribbon-cutting ceremony for the first complete drilling rig

Table 1 – Contracts and construction highlights

Contractor	Major activities during the second quarter 2011
Upstream Infrastructure (C1)	
Clough Curtain Brothers Joint Venture	Mubi River Bridge completed and opened. Southern Logistics Route scope completed.
LNG Plant Early Works (C2)	
Curtain Brothers Papua New Guinea Limited	Completion of site preparation works on the flare area.
Offshore Pipeline (EPC2)	
Saipem	Construction of the Caution Bay pipeline shore approach site commenced. Award of subcontract for the Omati River landfall preparation.
LNG Plant and Marine Facilities (EPC3)	
Chiyoda and JGC Corporation	Underground piping in the common LNG process area commenced. Piling for the marine jetty commenced.
Hides Gas Conditioning Plant and Hides Wellpads (EPC4)	
CBI Clough Joint Venture	Pioneer Camp construction completed. Foundations for the first waste incinerator completed. Commissioning for a temporary power generation system completed.
Onshore Pipeline (EPC5A)	
SpieCapag	Pipeline trenching, welding and lowering-in activities commenced. First occupancy of Kaiaam Camp 2 completed. Start of Right of Way work north of the Kikori River.
Komo Airfield (EPC5B)	
McConnell Dowell and Consolidated Contractor Group Offshore	Construction of temporary fuel storage facility completed. Bulk earthworks progressed. Construction of the Komo Airfield fence neared completion.
Associated Gas Development	
Various	Fabrication of the replacement offloading buoy neared completion. The first isolation valve in Kutubu Central Processing Facility installed.
Drilling (new wells and workovers)	
Nabors Drilling International Limited	First of two drill rigs completed. First shipment of drilling supplies delivered to Papua New Guinea.

Safety, health and security

With construction activity and worker numbers increasing, the Project is implementing numerous initiatives to protect the health and safety of workers at Project sites.

For example, the Project is planning a workshop with both Project and contractor executives in the third quarter 2011 to review safety lessons learned and develop plans to enhance safety performance. This follows an incident in the second quarter when an Onshore Pipeline subcontractor was fatally injured while surveying the pipeline Right of Way near Gobe. We are greatly saddened by this event and express deepest sympathies to the family and friends of this worker. In addition to notifying the relevant authorities, the Project conducted an investigation into the cause of this incident and specific preventative measures were subsequently identified.

With regard to worker health, there were no food or water-borne illnesses or foot hygiene-related incidences recorded this quarter, demonstrating that health program surveillance, health risk monitoring and new camp pre-commission health inspections are proving successful. The Project also reviewed its malaria and tuberculosis programs, introducing a monthly tuberculosis self-assessment checklist for contractors, which enables Project-wide monitoring of results. In addition, the Project conducted awareness raising activities and assisted with resources to combat malaria as part of the fourth World Malaria Day held on April 25.

At Boera Village, one of the LNG plant site villages, the Project has committed to upgrading the existing health clinic and building a new house for the clinic's resident health worker. The Project will also build three new units for health workers at the Salvation Army health clinic at Papa Village, enabling clinic staff to increase from three to seven.

The Security team is also working closely with other Project teams to facilitate a safe and secure environment for Project workers and operations. Security challenges can be complex, and regular engagement with the Socioeconomic team is providing a greater understanding of local communities' expectations in Project areas. This is allowing security programs to be adjusted as needed to ensure they remain fit-for-purpose.

Social development

Teaching children how to stay safe in and around construction sites, as well as on the road, remains important for community and Project safety. Following the successful launch of the Toea children's book series, the first Toea Project Interface Road and Site Safety book was launched during the quarter, containing a range of children's activities to reinforce safety messages. Local actors were also used to breathe life into the book's central character, Toea (representative of an urban child eager to learn more about the myriad of cultures within his own country), who visited schools in the LNG plant site villages and talked with children about road and construction site safety.



Toea with the children of Papa Primary School

The advancement of women continues to attract Project support. This quarter, two women were sponsored to attend the Washington DC Global Women in Management training program. In addition, the Project supported the convening of over 50 women leaders from Government, civil society, private sector and donor organizations for the Pacific Women's Empowerment Policy Dialogue.

During the second quarter, two biomedical technicians from Mendi Hospital in Papua New Guinea returned from a six-month Medisend International Biomedical Equipment Repair Training Program in Dallas, Texas made possible through the support of the Project.



Turiza Tandago with Ambassador Melanne Verwee, U.S. Ambassador-at-Large for Global Women's Issues at the Global Women in Management reception

Medisend International provides students from developing countries with the education, training and skills to improve community healthcare conditions. This exclusive, performance-based curriculum combines theory and practical training, using state-of-the-art equipment, to enhance skills in installing, repairing and maintaining life-saving biomedical equipment.

As part of ExxonMobil's commitment to honest and ethical behavior, the Project actively participates in and supports transparency and anti-corruption programs. The Project also recognizes that transparency initiatives can only be sustainable when national governments take ownership and responsibility. The Papua New Guinean Government achieved a milestone this quarter with the announcement of a Sovereign Wealth Fund to manage Project revenues. The Project welcomes this decision as an important step in ensuring that the value unlocked from gas resources in the Southern Highlands and Western Provinces results in economic growth, increased opportunities and a better standard of living for Papua New Guinean citizens.

An important challenge concerns the continuing influx of people seeking business and employment opportunities near Project areas. The Project is supporting communities in these regions with developing in-migration strategies. Significant progress was made during this quarter with in-migration action plans developed in three of the LNG plant site villages. Action plans for these villages (Lea Lea, Papa and Porebada) include land use strategies and the identification of stakeholders who could assist with addressing the impacts of in-migration.

The Socioeconomic team continues meeting with local communities to remind them about land access procedures and appropriate eligibility for resettlement and compensation, as well as the cut-off dates for the census and survey of structures and gardens.

Developing Papua New Guinean businesses

The Enterprise Centre, an initiative of Esso Highlands Limited, which is supported by the Institute of Banking and Business Management, is an integral part of the Project's National Content Plan. It aims to develop Papua New Guinean businesses so they can support the Project through commercial opportunities.

More than **2,000**
days of training provided by the
Enterprise Centre in one year

Further information

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The Centre celebrated its first anniversary by officially opening its new purpose-built building and launching a new website, www.enterprisecentre.com.pg, providing easier access to the Centre's services.

In the past year, the Enterprise Centre provided more than 2,000 days of training and assisted more than 8,500 entrepreneurs. The Centre has over 1,250 companies registered on its PNG Supplier Database. Demand for training continues to rise, with 665 training days recorded this quarter, up from just over 600 days in the first quarter 2011.

The Enterprise Centre has expanded its business advisory services to cover the four impacted villages of Boera, Papa, Lea Lea and Porebada. For example, this quarter, Business Basics training and Directors' training courses were provided to the all-women company Papa Magia Limited from Papa Village.



The Enterprise Centre team outside the new premises

As the Project gains momentum, the use of Papua New Guinean suppliers continues to grow. In total for the Project-to-date, more than three billion Kina (US\$1.3 billion) was spent in Papua New Guinea. This is largely a result of the increase in activity at the LNG plant site, continuing infrastructure and pipeline work, and the mobilization of work for the Hides Gas Conditioning Plant.

Environmental performance

Contractors are finding innovative ways to minimize waste and reuse excess construction materials. For example, the Onshore Pipeline contractor is using plastic pipes to safely store fluorescent tubes and wooden boxes for storing non-combustible wastes, while drums are reused by welding crews to store metal shavings on the Right of Way. At the LNG plant site, plans were developed this quarter to donate wood, from construction material packaging, to local villages. A medical waste incinerator was also installed at the LNG plant site to burn wastes from the on-site medical clinic.

The Project aims to minimize both the number and volume of spills by providing ongoing spill prevention training sessions to keep workers abreast of industry practice. Project-wide, 109 environmental incidents were reported during this quarter, which was 26 less than the first quarter. These were primarily spills of hydrocarbon, wastewater products or chemicals. To prevent such incidents reoccurring, numerous contractors conducted additional spill response drills and training, along with increased spill mitigation measures.

The Project continued consultation with key stakeholders on the Biodiversity Strategy and retained Conservation International as an advisor during the development of the Biodiversity Offset Delivery Plan.

Conservation International's scope of work includes: a review of the Project Biodiversity Strategy and related documents; development of a technical rationale for offset selection; scoping of potential offset areas, activities and partners; and an assessment of offset feasibility. Conservation International's recommendations will serve as the basis for the Biodiversity Offset Delivery Plan.

Photograph © C.B. Frith



Black-mantled Goshawk *Accipiter melanochlamys* found in the Project Impact Area

Stakeholder and community engagement

As the Project advances, stakeholder engagement activities involve creating dialogue and encouraging questions and comments from communities. This is providing opportunities to address any misconceptions about the Project and improve the communities' understanding of Project activities and potential impacts, including benefits such as employment and business development opportunities.

As part of this process, the Socioeconomic team continues to actively address community concerns early. Therefore, the team has increased its already close coordination with Project contractors to rapidly close grievances.

This quarter, community drama activities were incorporated in engagement activities. Drama is proving to be a successful consultation technique because it draws upon local knowledge, culture and tradition and is an entertaining way of providing information. To give more meaning and invite community participation, local community members were recruited to give performances in public areas.

In addition to community engagement, the Project continues engaging with the Papua New Guinean Government to help realize the economic and social benefits that will be derived from the Project. This quarter, Project management, Government Ministers and senior Agency staff held a Project/Government Planning Workshop at the LNG plant site. It was an opportunity to meet and address issues that cross respective areas of responsibility.

More than 500 Government representatives also attended six Provincial and nine National advocacy workshops and meetings during this quarter. The workshops covered Project progress, with specific attention to national content, land and community affairs, and business development.

Through working closely with the people of Papua New Guinea and by encouraging growth in the country's energy sector, the Project can leave a lasting legacy that benefits future generations through improvements in the health, education, skills and livelihoods of communities. The Project and its contractors look forward to continuing to deliver our development plans as construction activities build rapidly toward the end of the year.