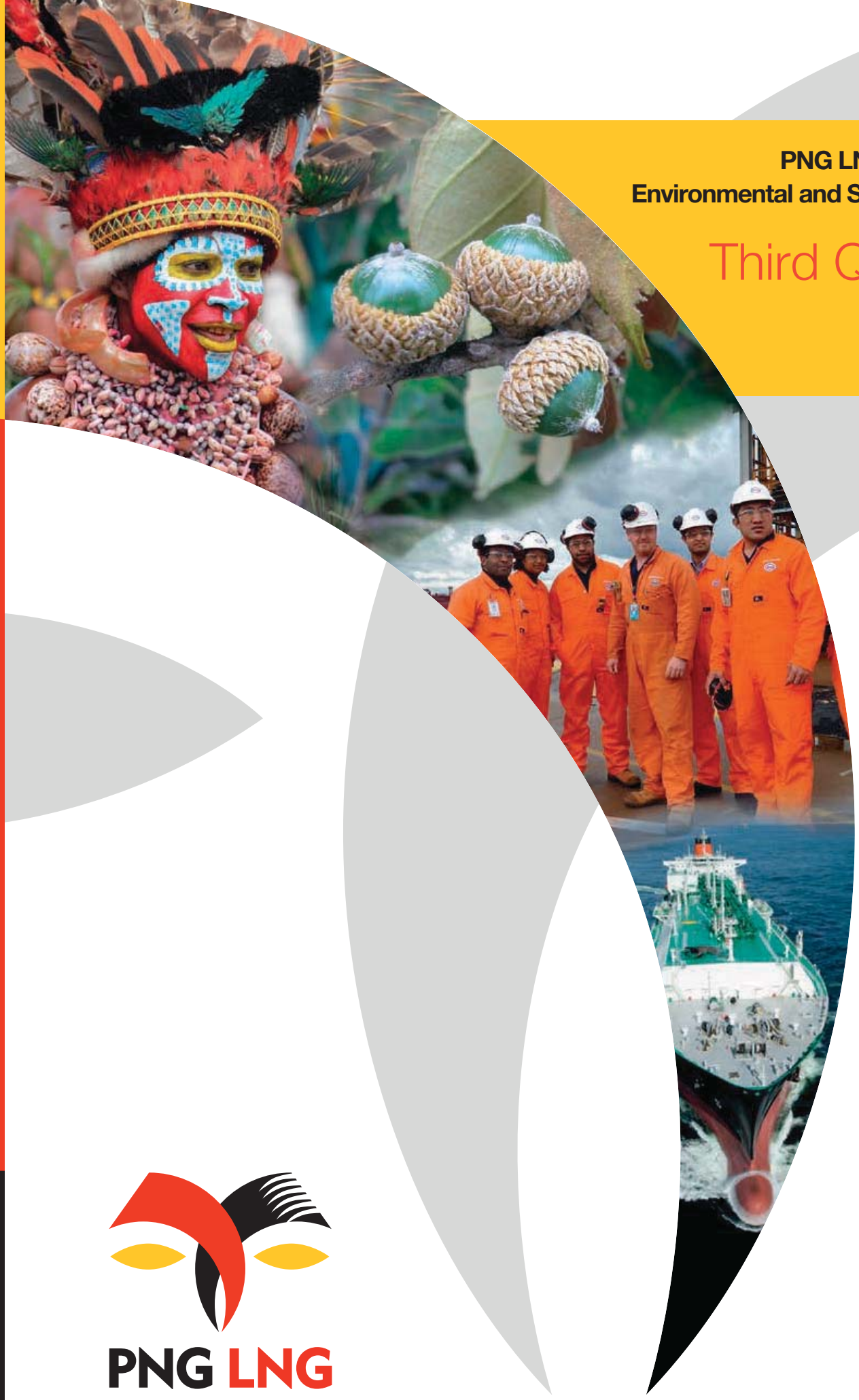

PNG LNG Quarterly Environmental and Social Report

Third Quarter

2013

PNG LNG

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

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Infrastructure Development Partnership

Prepared by IDP Consulting Pty Ltd.

While this Report uses US English; document titles, institutions and legislation use exact titles, which may include variations of English, depending on the country of origin. All units of measure published in this Report are metric units.

Data adjustments may be reported after publication and as such, data may be revised in future Reports.

For the purposes of this Report, the currency conversion rate used, between Papua New Guinea Kina (Kina) and United States Dollars (US$) is 0.4160 [1 Kina = US$ 0.4160]. This rate is as published by the Bank of Papua New Guinea at September 30, 2013.

PNG LNG

About This Report

Recent safety, construction, health, environment and social management activities for the Papua New Guinea Liquefied Natural Gas (PNG LNG) Project (the Project) are reported in this PNG LNG Quarterly Environmental and Social Report – Third Quarter 2013.

This Report demonstrates the progress made each quarter and is a commitment by the Project to ensure the citizens of Papua New Guinea, interested non-government organizations and other stakeholders are kept well informed.

This Report is on the Project website, www.pnglng.com. Printed copies are also available.

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EXECUTIVE SUMMARY

PROJECT REMAINS ON BUDGET AND ON SCHEDULE

"A disciplined focus on safety and project execution is enabling the PNG LNG Project to remain on budget and on schedule for the first LNG gas deliveries in 2014."

- Decie Autin, Project Executive, Esso Highlands Limited

A key achievement for the Papua New Guinea Liquefied Natural Gas (PNG LNG) Project (the Project) was reached in September when natural gas from the Kutubu Central Processing Facility was introduced into the LNG Plant for the first time. This is the beginning of commissioning activities for the onshore and offshore pipeline and the LNG Plant site.

The Project is more than 90 percent complete and on schedule for the first delivery of LNG during the second half of 2014. As forecast in 2012, the estimated Project cost remains at US$19 billion, reflecting disciplined project management in a unique and challenging working environment.

This fifteenth PNG LNG Quarterly Environmental and Social Report provides updates about the Project's construction, safety, health, security, social and environmental progress. 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 of PNG (Kroton) Limited, Santos Limited, JX Nippon Oil and Gas Exploration Corporation, Mineral Resources Development Company Limited and Petromin PNG Holdings Limited, and their affiliates.

Construction

Two significant construction milestones were achieved in the third quarter. The first was in August when the last of 88 Antonov aircraft deliveries of heavy equipment arrived at Komo Airfield. The second was the introduction of natural gas from the Kutubu Central Processing Facility to the LNG Plant.

The PNG LNG Project is more than 90% complete

Other construction highlights are outlined in Table 1.

Table 1 – Contracts and construction highlights

Contract	Contractor	Major activities during the third quarter 2013
LNG Plant and Marine Facilities (EPC3)	Chiyoda and JGC Joint Venture	Commissioning gas arrived at the LNG Plant. Flare lit for the first time and three utilities generators started-up. Permanent lighting switched on for the common process area, the utilities area and the LNG jetty.
Hides Gas Conditioning Plant and Hides Wellpads (EPC4)	CBI and Clough Joint Venture	Completed transportation of heavy equipment from Komo Airfield to the Hides Gas Conditioning Plant. Foundations poured and pipe spools installed at Wellpad B.
Onshore Pipeline (EPC5A)	SpieCapag	Commissioning gas introduced into the pipeline. Completed welding on 362 kilometres of pipeline, hydrotesting on 286 kilometres of the line and 221 kilometres of Right of Way reinstatement works to date.
Komo Airfield (EPC5B)	McConnell Dowell and Consolidated Contractor Group Joint Venture	Completed the final Antonov delivery. Reinstatement of 57 hectares of land. Reinstatement completed within the perimeter fence.
Associated Gas Development	Various	Gas and condensate metering facilities completed at the Kutubu Central Processing Facility and handed over to the Production organization.
Drilling	Nabors Drilling International Limited	Drilling Rig 702 completed drilling at Wellpad B and relocated to commence work at Wellpad D.
Permanent Facilities Compound	Leighton (PNG) Limited	Continued earthworks, including benching and foundation piling, for the administrative building.

The Systems Completions and Operations team started-up three of seven generators in the LNG Plant utilities area

Environmental performance

As many Project sites near completion, temporary erosion and sediment control measures are being replaced with permanent measures as part of reinstatement works. For example, at the LNG Plant site, permanent erosion and sedimentation control devices are being constructed during reinstatement activities. These permanent measures will be monitored throughout the production phase.

The LNG Plant site's atmospheric air quality is monitored at four on-site locations each quarter. All of these locations remain well below the Project's emissions criteria. With the introduction of commissioning gas in September, additional ambient monitoring was undertaken during the start of commissioning flaring for sulfur dioxide and nitrogen dioxide. All results were well below World Health Organization emissions criteria. Additional noise monitoring was also undertaken as part of commissioning activities, with all results below Project Environment Permit criteria.

Implementation of the Project's Biodiversity Strategy is progressing, along with early implementation of the biodiversity offset program, which is documented in the Biodiversity Offset Delivery Plan. During this quarter, the biodiversity offset program's Enhancing Conservation Capacity component was advanced, with the University of Papua New Guinea recruiting lecturers and support staff for this program.

The Enhancing Conservation Capacity program is based on an agreement announced between the Project and the Mama Graun Conservation Trust Fund in April 2013. It has three key components: a conservation management course, scholarships, and work placements. In September, the University of Papua New Guinea announced it would offer a Diploma in Conservation Management as part of the program.

The Hides Waste Management Facility is increasingly receiving waste for disposal from across Project worksites. As some sites prepare for demobilization, waste that was previously stored is being transported to the Hides Facility for disposal.

For example, the Hides Waste Management Facility received more than 50 tonnes of waste and over 20 tonnes of ash from the Komo Airfield, along with 15 container loads of assorted waste from the Onshore Pipeline contractor.

Waste timber and metal from the Hides Gas Conditioning Plant (HGCP) site is being put to use in local communities with support from the Juni Construction Training Facility, which is using it to build school donations of desks, tables and chairs. Community groups are also using the material in the maintenance of houses, churches and community facilities.

At Komo Airfield, reinstatement was completed on 57 hectares of land this quarter, which included the area north of the taxiway. Reinstatement was also completed within the perimeter fence and for the Tamalia River Borrow Pit, which involved planting some 14,200 trees.

The Komo Airfield showing reinstated areas along either side of the runway

Along with other waste management initiatives, the Komo Airfield contractor continues to reuse discarded tires from onshore pipeline activities in land stabilization and reinstatement works. During this quarter, over 1,500 truck tires were recycled and reused in reinstatement works.

Safety, health and security

Regrettably, there was a fatality on the Project during this quarter. A contractor was working to align two sections of pipe on the onshore pipeline when one section moved unexpectedly causing fatal injuries to the worker. The Project is greatly saddened by this tragic event and expresses its deepest sympathies to the family and friends of the worker involved.

Relevant authorities were notified immediately and an incident investigation was conducted. As a result of the investigation, specific mitigations were implemented to address the identified causes. Key learnings from the investigation were shared across worksites to prevent similar incidents.

The Project continues its focus on fatal risk mitigation and the prevention of higher potential incidents.

From quarterly analyses conducted of higher potential incidents, focus areas are identified to drive continuous performance improvement. The implementation of structured improvement initiatives and increased worker safety awareness has resulted in a decline in higher potential incident rates since the first quarter 2012.

The arrival of commissioning gas at the LNG Plant this quarter brought a new safety focus to the site, as some parts of the facilities are now designated hydrocarbon live areas. Before the introduction of commissioning gas, some 8,000 LNG Plant site construction workers participated in an emergency drill to familiarize them with emergency scenarios involving hydrocarbons. The drill was successfully completed and lessons learned will be applied during the commissioning and production phases. Prior to obtaining entry into hydrocarbon live areas, Project workers also receive training in Esso Highlands Limited's Production Work Management System so they can safely perform construction activities while working in proximity to hydrocarbons.

Workers mustering during the emergency drill at the LNG Plant site

The Safety Champions initiative continued this quarter, with 88 workers completing the training. Since its introduction in 2011, the Safety Champions initiative has proven successful with both workers and contractors. By the end of the quarter, more than 1,400 workers had completed the training.

During this quarter, pedestrian and traffic safety was a focus area due to heavy haul operations from Komo Airfield to the HGCP site. All cargo was transported safely as a result of the efforts of Project teams, contractors, and locally engaged traffic controllers who performed a vital service as the interface between local communities and Project traffic.

The Security team also continues to provide an interface between the Project and communities. In preparation for production, the team is managing a comprehensive training and mentoring program for Papua New Guinean security personnel in the field and in administrative support functions. In August, two non-national security positions were nationalized, providing more opportunities for Papua New Guinean personnel to further develop their competencies in security management.

The Health team is also planning the transition of health-related activities to the Production team in preparation for commencement of the production phase. As part of this approach, they are supporting demobilization and transition activities on worksites such as the Komo Airfield.

Improving access to healthcare in Papua New Guinean communities is another focus area for the Project. During this quarter, the Project worked with the Papua New Guinea Tribal Foundation, MediSend International and Maersk Line to deliver more than 130 pieces of medical equipment to hospitals throughout the Project area. The equipment and supplies included bedside monitors, defibrillators, freezers, electric hospital beds, infant incubators, intravenous pumps, examination lights, microscopes, nebulizers, x-ray viewing boxes and ultrasound machinery.

Social development

As part of the Project's continued support to education in Papua New Guinea, 80 Toea money management games were distributed to schools near the LNG Plant site this quarter. The game, which allows for two to eight players, aims to teach students how to make smarter financial choices in life, and to always consider the impact of spending today compared with saving for the future. The Toea money management game is just one of the many initiatives the Project is leading to support Papua New Guinean schools.

Other initiatives include the ExxonMobil Science Ambassadors Program, which helps high school students learn about the science and petrochemical industry by examining various mineral and chemical samples, even fossils some millions of years old. The Project is also providing extensive infrastructure support to schools, for example, by committing 1.3 million Kina (US$540,800) for larger-scale infrastructure development for five primary schools in the Project area.

In addition to its own initiatives, the Project is working with community-based organizations to open up more educational opportunities for school students. For example, the Project is providing support for the Port Moresby Nature Park's school excursion program. This program brings students from schools in the National Capital District and Central Province into the Park to give them first-hand experience of environmental science and of Papua New Guinea's unique biodiversity in a single location. To date, more than 4,000 students have participated in these excursions.

Contractors are also providing their own support to schools. For example, a drilling contractor is offering computer training for high school teachers in Hela, and donating physics, chemistry and biology textbooks to students. Another drilling contractor donated 20 boxes of English reading practice books to five elementary and primary schools in the Upstream area during this quarter.

Students pretend to walk like praying mantises while on excursion at the Port Moresby Nature Park

Train-the-trainer graduate Pemen Pani, leader of the Yakamondo Women's Group

The last of four major LNG Plant site village projects was completed during this quarter, with construction of the new boardwalk for Papa Village. The original boardwalk, made from mangrove wood, collapsed approximately ten years ago. Together with volunteers from the Papa community, the Project helped to construct the new boardwalk, which consists of a 150-metre elevated timber walkway that crosses over mudflats and a tidal stream. The new structure will provide access for Papa villagers to traditional inland waterways, fishing habitats, hunting grounds and areas for gardening and collecting firewood. It will save villagers over two hours of travel time on each trip.

Since 2010, the Project has introduced 115 drum ovens and provided training courses across 26 Upstream locations serving 60 active women's groups. The intention is to educate communities about establishing small businesses through food processing of minor commodities such as bread, scones, and roast chickens, as well as household health and hygiene including the nutritional value of different foods. The success of this training led to the introduction of a train-the-trainer course. Graduation ceremonies for both courses were held in August, where 656 trainees were awarded with completion certificates.

To provide a long-term sustainable supply of food crops for resettled households, the Project is working with more than 30 model farmers to rapidly multiply large numbers of sweet potato vines. The Project buys back the vines for distribution to these households. Technical assistance is also provided to farmers regarding the production of seeds for vegetable crops such as carrots and cabbages. During this quarter, resettled households near the Komo Airfield, HGCP, pipeline Right of Way (ROW) and wellpad access roads indicated that the Livelihood Restoration Program was a major influencing factor in their positive perceptions of the Project.

The Project continues to promote opportunities for Papua New Guinean women. During this quarter, seven women from the Central, Southern Highlands, Hela, and Gulf provinces attended a Global Women in Management alumni program in Washington DC through support from the Project. The program, which is part of ExxonMobil's Women's Economic Opportunity Initiative, aims to train and mentor women from developing nations such as Papua New Guinea.

The Papua New Guinean women who attended the most recent course are Global Women in Management alumni from previous sessions and have the skills and professional ability to advance positive social and economic growth in their communities.

Workforce development

By the end of the quarter, the total Project workforce was just over 18,500, compared with almost 19,300 workers in the second quarter 2013. Of these, 38 percent are Papua New Guinean citizens. The decline in worker numbers reflects demobilization activities at some worksites.

18,500+ people make up the total Project workforce

The focus of worker training has moved from construction-based courses to those that will help Papua New Guinean workers develop skills for opportunities outside of the Project. For example, a three-month computer training course is being offered to LNG Plant and Marine Facilities contractor drivers to help them develop new skills or build on their existing skills.

Contractors continue to focus on safety training to meet Project requirements. During the quarter, over 1,000 workers commenced Working at Heights training and 150 workers participated in Safety Leadership and Supervisor Incident Prevention programs.

Simulator technology is being introduced to support worker training for production operations. For example, the Project has installed two operations training simulators that replicate the activities of the LNG Plant and HGCP control rooms. These simulators are used to build worker knowledge and skills for monitoring and controlling gas production and plant operations from a central location. Production managers are using the simulators to build the skills of Operations and Maintenance trainees and to give them a working knowledge of field systems and procedures, particularly in the process and utilities areas.

At the LNG Plant site, another simulator has been installed to introduce already experienced ship pilots to terminal operations at the LNG jetty.

An appreciation day was held in August to recognize the safety performance of the LNG Plant site and the outstanding camp service provided by one of the Project's Landowner Company (Lanco) contractors. During the day, the Laba Alliance Group was recognized for serving over 30 million meals to workers and for playing its part in raising camp standards through consistently delivering quality in housekeeping and maintenance.

Non-national workers were also 'adopted' by their Papua New Guinean colleagues this quarter as part of the nation's Independence Day celebrations.

As worksites demobilize, the Project and its contractors are supporting workers with the transition from their current work to new non-Project-related opportunities. One example is the transition training program offered at the LNG Plant site. This four-day program was introduced in June 2013 to equip Papua New Guinean workers with the knowledge and skills to help them seek and apply for employment opportunities outside of the Project. To date, more than 950 Papua New Guinean workers have completed the voluntary program.

Growing Papua New Guinean businesses

Through its various programs, the Enterprise Centre has assisted more than 16,000 Papua New Guinean entrepreneurs to date. In addition, the Centre has provided the equivalent of more than 9,000 training days and 1,200 mentoring days to Papua New Guinean businesses since it commenced activities in 2010. The Enterprise Centre achieved a milestone with its 300th business assessment completed this quarter.

The Project continues to invest in the development of Lancos, with more than 2.26 billion Kina (US$940 million) spent on Lanco services to date. Of this, 173 million Kina (US$72 million) was spent during this quarter. In addition to Lancos, other Papua New Guinean businesses are used for support services such as camp rental, grass cutting and equipment hire. By the end of the quarter, the Project's in-country spend for both Lanco services and additional services had reached more than 9.71 billion Kina (US$4 billion).

9.71+ billion Kina spent in Papua New Guinea to date

Stakeholder and community engagement

The newly appointed Papua New Guinean Ambassador to the US, Rupa Mulina, was part of a group of foreign service officers from the Department of Foreign Affairs who visited the LNG Plant site during this quarter. The group was among more than 160 dignitaries from government, foreign missions, the media and international donor agencies who attended 15 advocacy workshops and LNG Plant site visits in the quarter.

The workshops provided attendees with updates about the Project's construction progress, as well as safety, environment, security and national content initiatives.

Papua New Guinean Government authorities continue to introduce new processes that enable Project activities to rapidly progress while complying with national regulations. For example, new National Agriculture Quarantine and Inspection Authority processes for the fumigation of cargo entering Papua New Guinea are helping Project contractors to reduce re-fumigation levels by more than 75 percent.

More than 500 individuals participated in over 200 formal community engagements conducted in 55 communities during this quarter. For the Project-to-date, over 30,000 individuals have been reached through more than 1,400 formal engagements. In addition, over 400 informal engagements were conducted in 41 communities during this quarter. Pedestrian safety education was the emphasis of community engagement activities, particularly near the HGCP site where the Project continued educating local communities about how to safely maintain their traditional access routes to schools and markets given the heavy construction work in this area.

Pipeline ROW safety engagement session at Kaiam

Along the onshore pipeline, the Project has donated materials for villages to build '*haus win*' meeting areas, where monthly meetings are held with community leaders to allow communities to raise safety concerns. These meetings also enable Project representatives to provide ongoing information about the ROW construction and heavy equipment safety. As part of community safety engagements, workshops are being conducted with women's groups and local schools along the pipeline ROW to educate mothers and schoolchildren about the risks of children playing along the ROW or around heavy equipment.

As construction draws closer to completion, the Project continues to focus on building sustainable capacity for Papua New Guinea. Its investments in supporting schools and tertiary institutions, providing training facilities and building the capabilities of individuals and businesses in Papua New Guinea are designed to leave a lasting legacy of economic growth and development for the nation.

01 INTRODUCTION

The PNG LNG Project is over 90 percent complete and on target for the first delivery of LNG during the second half of 2014.

This is the fifteenth PNG LNG Quarterly Environmental and Social Report, which provides updates on the Project's progress with respect to construction, health, safety, environmental and social management activities during the third quarter.

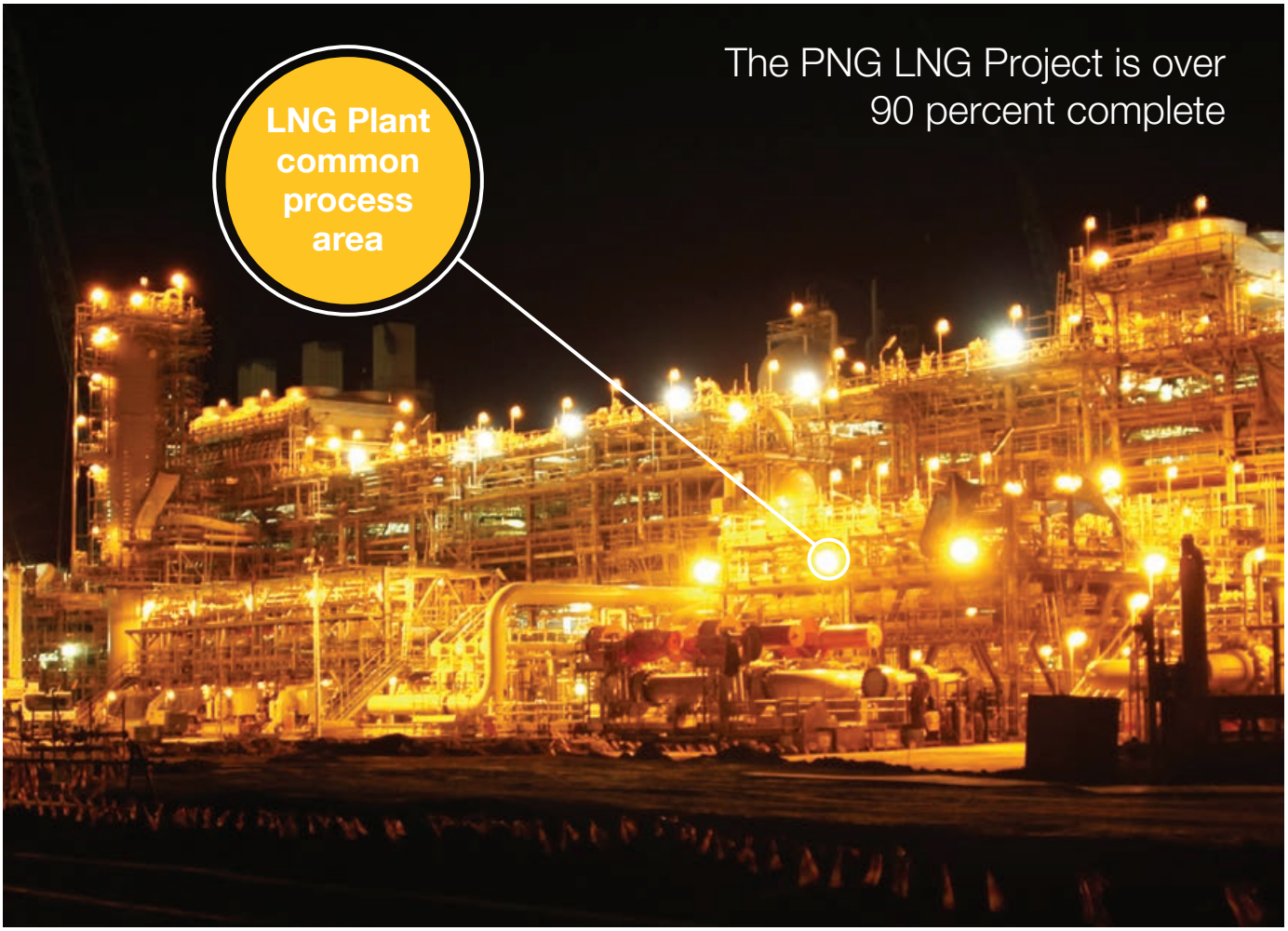
The $US19 billion Project involves the construction of gas production and processing facilities in Papua New Guinea's Southern Highlands, Hela and Western Provinces. It includes liquefaction and storage facilities located north-west of Port Moresby on the Gulf of Papua. When construction is complete, these facilities will have a capacity of 6.9 million tonnes per year. More than 700 kilometres of pipelines will connect the facilities.

In excess of 250 billion cubic metres of gas are anticipated to be produced and sold during the life of the Project. This will provide a long-term supply of LNG to customers in the Asia Pacific region, including: the China Petroleum and Chemical Corporation (Sinopec); The Tokyo Electric Power Company Inc.; Osaka Gas Company Limited; and the Chinese Petroleum Corporation, Taiwan. The location and elements of the Project are shown in Figure 1.1. *Appendix 1* provides detail about how the contracts for Phase 1 of the Project are divided.

To read the complete series of PNG LNG Quarterly Environmental and Social Reports visit the Project's website.

Read the PNG LNG Quarterly Environmental and Social Report series at
www.pnglng.com

The Project also makes printed copies and translated summaries of each quarterly report available for Papua New Guinean citizens who may have limited access to the internet.



Permanent lighting turned on for the first time at the LNG Plant common process area

Figure 1.1

Project elements

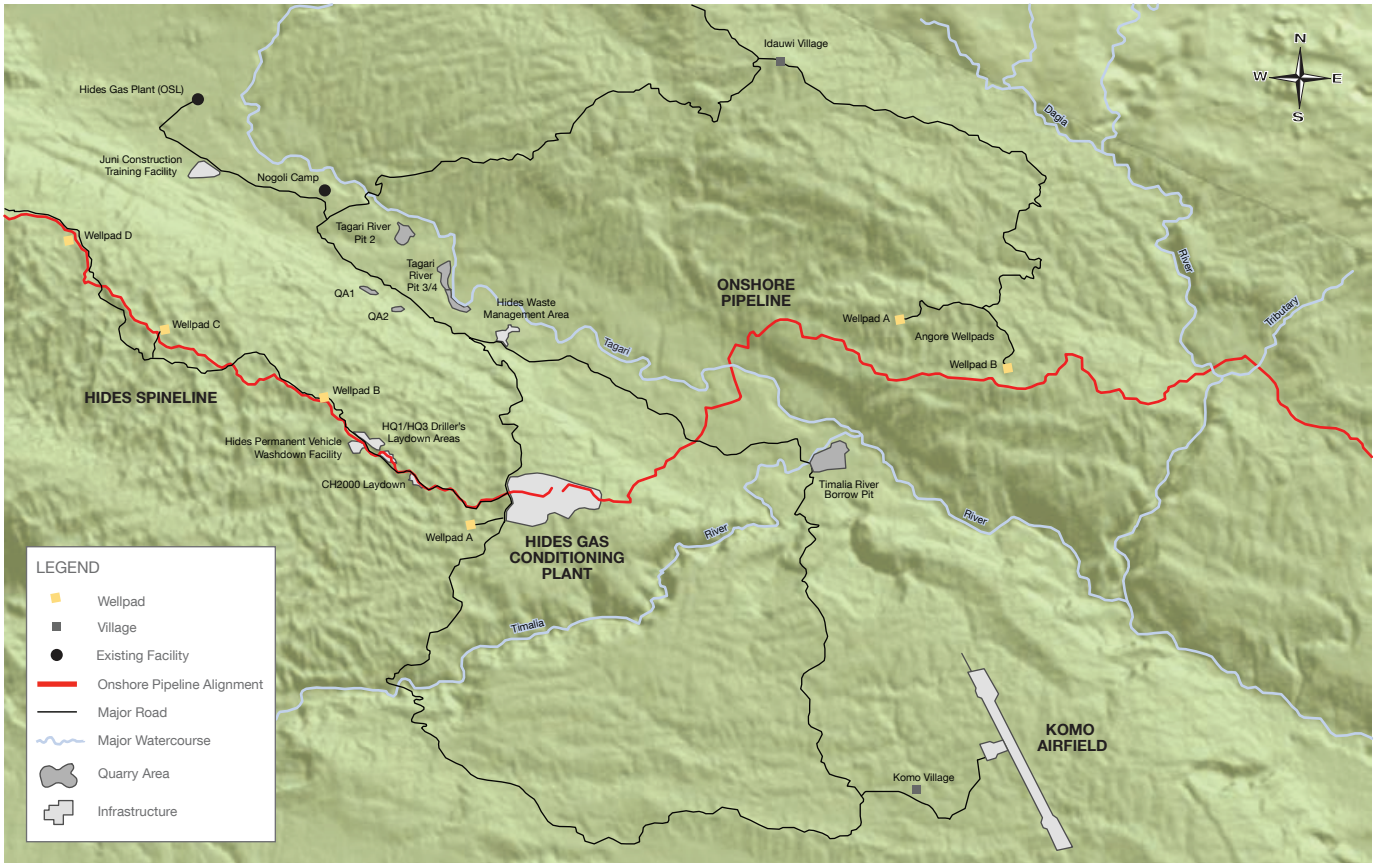
02 CONSTRUCTION OVERVIEW

Two significant construction milestones were achieved in the third quarter. The first was in August when the last of 88 Antonov aircraft deliveries of heavy equipment was completed at Komo Airfield. The other milestone was reached in September when natural gas from the Kutubu Central Processing Facility was introduced into the LNG Plant for the first time as detailed in *Case Study One – Gas commissioning milestone achieved*.

2.1 Highlands area

Figure 2.1

Highlands area Project activities



2.1.1 Hides Gas Conditioning Plant and Hides Wellpads

The transportation of heavy equipment from Komo Airfield to the HGCP was completed this quarter. The equipment, which includes a pipeline compressor, gas turbine generator and glycol vent gas incinerator, was set on foundations at the HGCP site.

At Wellpad B, concrete foundations were poured and pipe spools installed for wellsite production facilities.

Pipeline compressors 1 and 2 at the HGCP

2.1.2 Komo Airfield

With the final Antonov aircraft delivery completed at Komo Airfield in August, reinstatement works continued on land surrounding the airfield and near the landing strip.

Completed Komo Airfield with re-grassing in progress

2.1.3 Drilling

Drilling Rig 702 completed drilling operations at Wellpad B this quarter and relocated to commence work at Wellpad D. Drilling operations continued at Wellpad C with Drilling Rig 703.

Drilling Rig 702 following relocation to Wellpad D

2.2 Onshore Pipeline

A significant milestone was achieved when natural gas from the Kutubu Central Processing Facility was introduced to the pipeline at low pressure in late August. Twelve days later, the gas entered the LNG Plant for the first time.

In addition to successful gas commissioning work, the Onshore Pipeline contractor completed welding on 362 kilometres of pipeline, hydrotesting on 286 kilometres of the line, and 221 kilometres of ROW reinstatement works to date. Tree felling activities were also finalized between Kutubu and Hides. The contractor has moved the Horizontal Directional Drilling rig to the Tagari River crossing to drill under the river.

2.3 LNG Plant and Marine Facilities

The first commissioning gas arrived at the LNG Plant in September, and was followed by the lighting of the flare and start-up of three of the seven utilities generators. Permanent lighting was also switched on for the common process area, the utilities area and the jetty. Nitrogen purging of both north and south LNG tanks commenced, while the administration building, chemical storage building and two gatehouses were handed over to the Production organization.

Lights turned on at the LNG Plant

In addition, the erection of piping for Train 1 was completed, while lube oil flushing of Train 2 compressors progressed.

At the LNG jetty, the jetty trestle was mechanically completed, with the contractor achieving almost two million work hours without a Lost Time Incident.

2.4 Associated Gas Development

Gas and condensate metering facilities were completed at the Kutubu Central Processing Facility and handed over to the Production organization. Gas from the Kutubu fields was used to commission the onshore pipeline during late August and early September. Mechanical and electrical controls for protection of the condensate storage tanks also progressed.

At the Gobe Production Facility, static commissioning of the gas metering facility and the thermal oxidizer unit was completed.

2.5 Development support execution, logistics and aviation

The frequency of freight movements along the Highlands Highway has reduced from the construction peak and is continuing to decline. Despite multiple day closures of the Highlands Highway at Margarima during this quarter, approximately 500 equivalent truckloads were transported to Hides each month.

2.6 Permanent Facilities Compound

Earthworks, including benching and foundation piling, continued for the administrative building that will form part of the Permanent Facilities Compound.

2.7 Pre-construction surveys

Pre-construction surveys for the onshore pipeline were conducted on supporting infrastructure, such as quarries and areas, which could be affected by sidecasting.

A re-alignment for the pipeline ROW between Kilometre Points 89 and 90 was also surveyed during this quarter.

Pre-construction surveys in progress this quarter are illustrated in Figure 2.2.

Pre-construction Survey and Engineering teams during the ground-truthing surveys for the re-alignment between Kilometre Points 89 and 90

Figure 2.2

Pre-construction survey progress

1	Protected Areas
2	Protected Species
3	High-Conservation Value Habitat
4	Sites or Habitats of Ecological Significance
5	Cultural Heritage Sensitivity
6	Social Sensitivity

✎	Report in preparation
➔	Issued to the DEC
×	No longer going to be used
☑	Approved by Project
➲	DEC permission to construct (as required)

Survey site	Sensitivities surveyed						Status
	1	2	3	4	5	6	
ONSHORE PIPELINE FACILITIES							
Paua Access Road to ROW Kilometre Point 65+560				✓	✓		×
Benaria Quarries		✓		✓	✓		×
ROW Re-alignment: Kilometre Points 89-90	✓	✓		✓	✓		☑
Halimbu Quarry				✓	✓		☑

Environment Permit sensitivity definitions:

1 Protected Areas

Recognized or pending protected areas which include but are not limited to wildlife management areas, conservation areas, Ramsar sites, provincial reserves, national reserves, sanctuaries and protected areas, and national parks.

2 Protected Species

Any species protected under Papua New Guinea legislation or listed in Convention on the International Trade in Endangered Species appendices, or in the International Conservation Union (IUCN) Red Data Book as Critically Endangered, Endangered Vulnerable or Data Deficient.

3 High-Conservation Value Habitat

Any habitat identified within the high-conservation value Forest Toolkit as being within categories high-conservation value 1-5.

4 Sites or Habitats of Ecological Significance

Sites or habitats of ecological significance such as:

a) Caves with a large entrance which may be used by bat colonies.

b) Pinnacles containing bat colonies.

c) Birds-of-Paradise or Bowerbird display trees or display grounds.

d) *Pandanus* swamp forest.

e) Antarctic Beech *Nothofagus* spp. forest.

f) Areas of Antarctic Beech *Nothofagus* spp. dieback.

g) New Guinea Big-eared Bat *Pharotis imogene* colonies.

h) Sandalwood *Santalum macgregorii* trees.

i) High-value conservation swamps containing juvenile fish nursery habitat.

j) Swamps in sink holes <50 metres deep on Hides Ridge.

k) Areas of infestations of priority weeds or pests.

l) Mangrove stands and forest.

m) Seagrass beds.

n) Coral reefs.

5 Cultural Heritage Sensitivity

Any site in which any cultural property as described in s. 20(1) of the *National Cultural Property (Preservation) Act* has been located.

6 Social Sensitivity

Issues include, but are not limited to:

a) Impact on previously undisturbed sites of cultural heritage.

b) Significant and unpredicted loss of resources that affects livelihoods.

CS

CASE STUDY ONE
GAS COMMISSIONING MILESTONE ACHIEVED

At 10:23 am on August 26 the Project achieved its most significant milestone to date, with commissioning gas introduced into the onshore and offshore pipeline.

This is an important step in the commissioning and start-up process for the onshore and offshore pipeline, and the LNG Plant, as these facilities prepare for LNG production in 2014.

The gas from Oil Search Limited's fields in Kutubu was introduced into the LNG Plant at 10:40 am on September 8, when the inlet valve at the LNG Plant was opened. Nitrogen used to initially purge the pipeline was vented, and on September 10 lighting of the flare occurred. Start-up of the first of seven utilities generators was achieved on September 12.

Two days after the introduction of gas, the flare was safely ignited on September 10

During late 2013 and early 2014, gas from the Kutubu Central Processing Facility will be used to commission various facilities across the Project, starting at the LNG Plant and later at the HGCP.

The Project's Upstream Start-up Manager, Peter Hiskins, said commissioning and start-up was an extensive process involving thorough planning to ensure all safety and regulatory requirements were met.

"The Project's commissioning gas unit at Kutubu has allowed us to start testing the facilities using gas from the existing Oil Search Limited fields while the Project's drilling program is still underway," Peter said.

"Now that the Project is 90 percent complete, our job is to test each function to ensure we can safely and efficiently transport gas to the LNG Plant for LNG production.

"It's a big job that involves many people who are all working very hard at the moment to ensure the success of the Project," he said.

The commissioning gas process

The process began with construction of the commissioning gas unit in the Kutubu Central Processing Facility and construction of the pipeline and associated facilities to transport gas to the LNG Plant. As part of the commissioning process, more than 1,200 check sheets were completed on the pipeline section alone to ensure it was ready for the introduction of gas.

The pipeline was purged with nitrogen to ensure safe operations before the introduction of gas. Gas commissioning began on August 26 when gas was sent from Kutubu along the pipeline and was constantly monitored for quality. During the entire process of pressuring up the pipeline, additional checks were made at each site to ensure operations were as expected. The gas successfully entered the LNG Plant site for the beginning of gas turbine generator testing.

Teams meet for a toolbox talk on September 9 to discuss next steps, including testing equipment in preparation for LNG Plant start-up

Gas from the Kutubu Central Processing Facility arrived at the LNG Plant in early September

CS

CASE STUDY ONE
GAS COMMISSIONING MILESTONE ACHIEVED

September 12 marked the start-up of the first of seven generators in the utilities area

Operations and Maintenance trainee, Doreen Mandibi, assisting with the nitrogen purging process

LNG Plant Senior Project Manager, Yow-Yeen Lee, said the teams achieved a flawless introduction of gas.

"Our teams have put a lot of hard work and planning into this effort. Our LNG Plant site contractor and its subcontractors did what they needed to safely complete this task and they should be proud," he said. "This achievement commences a set of activities that will allow us to accept Hides gas into the Plant site to make LNG."

Among the teams involved in commissioning activities were Operations and Maintenance trainees who were engaged in purging the onshore pipeline with nitrogen and in receiving gas at the LNG Plant.

"The experience was so exciting as it was my first hands-on training in operating equipment on-site. I enjoyed learning so much from the experts and I am looking forward to being more involved in the PNG LNG Project," trainee Doreen Mandibi said.

Another Operations and Maintenance trainee, Junior Steven, said he was excited to be part of the commissioning team.

"My involvement in the pipeline purging from the LNG Plant up to Kopi will be the highlight of my career. I enjoyed working with experienced team leaders who assisted us in getting this job done safely," he said.

Next steps

The pipeline from Kutubu to the HGCP will be purged with nitrogen. Gas flow will then commence from Kutubu to the HGCP to commission the facilities.

Following completion of the drilling campaign and construction of the HGCP, production will begin as gas travels though all facilities to the LNG Plant with the first delivery planned for the second half of 2014.

Project succeeds in safe introduction of commissioning gas into the LNG Plant site

03 SAFETY, SECURITY, HEALTH, ENVIRONMENT AND SOCIAL MANAGEMENT

The Project focuses on meeting commitments outlined in its environmental, social, safety and health management plans with the intention of protecting the health and safety of workers, local communities and the environment within which Project activities occur.

3.1 Approach

The Environmental and Social Management Plan (ESMP) provides details about the Project's approach to environmental and social management activities. It is supported by a series of discipline-specific plans developed from the Project's Environmental Impact Statement. These plans (as shown in Figure 3.1) are publicly available on the Project website.

Explore the plans at
www.**pnglng.com/commitment**

The Project's Security, Health and Safety management plans, as well as a Regulatory Compliance Plan, complement the ESMP. All of these documents drive a best-practice culture across Project activities, enabling Esso Highlands Limited to support sustainable economic growth for Papua New Guinea.

3.2 Security

The Security team is managing a comprehensive training and mentoring program for Papua New Guinean security personnel in the field and in administrative support functions.

In August, two non-national security positions were nationalized, providing more opportunities for Papua New Guinean personnel to further develop their competencies in security management.

Progress was also made in executing the security transition plan in preparation for production. A key component of the plan is developing the capabilities of local security service providers in safety, security management and administration. As part of the plan, the Project is supporting local security providers to ensure their personnel are trained on the Voluntary Principles of Security and Human Rights.

In addition, the Project is helping the Papua New Guinean Government's Office of Security Assessment and Coordination to develop a national critical infrastructure Security Risk Assessment.

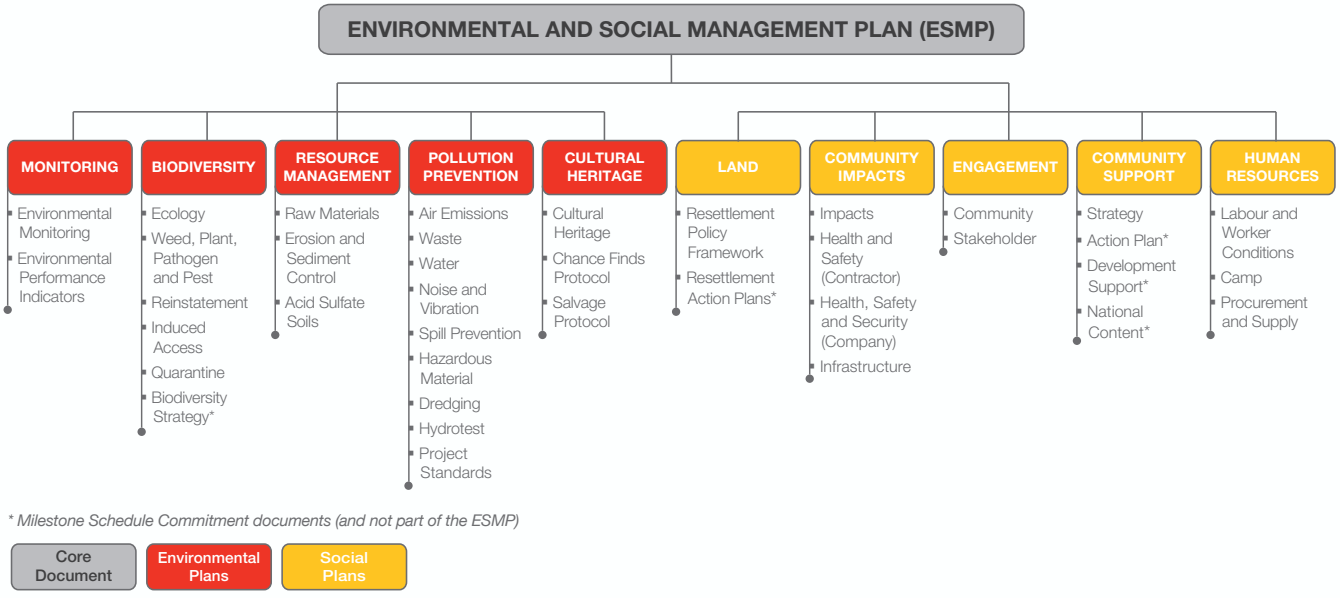
3.3 Revenue management

According to the International Monetary Fund, Papua New Guinea's economic growth is expected to be 5.5 percent in 2013 and pick up speed through 2014 and 2015 when production of the LNG Plant reaches full capacity. As opportunities emerge through economic growth, the Papua New Guinean Government continues to state its support for improving Government service delivery through greater budgetary and related assistance to the provincial and sub-provincial levels of Government.

The Government is also moving forward with its commitment to apply for Extractive Industries Transparency Initiative (EITI) candidacy by December 2013.

Figure 3.1

Environmental and social management plans



Progress was made this quarter with Government, civil society representatives and the extractive industries sector working together to meet the December 2013 application date. For example, in July, industry came together under the auspices of the Papua New Guinean Chamber of Mines and Petroleum to nominate and select representatives for the future Papua New Guinean EITI multi-stakeholder group. Meanwhile, civil society progressed planning to hold a consultation event in early October 2013 to select civil society's multi-stakeholder group representatives.

The EITI is a voluntary initiative to improve governance in resource-rich countries through disclosure and verification of company payments and government revenues from oil, gas and mining. Exxon Mobil Corporation, which has continuously served on the EITI board since its inception in 2002, supports Papua New Guinea's efforts to achieve EITI candidacy.

3.4 Management of Change

When changes are needed to the Project Development Plan, the Project applies its Management of Change procedure. This procedure considers safety, health, security, environmental and social management, operability and maintenance, regulatory and cost, and scheduling requirements before any change is made. Change classifications are applied to proposed changes, with Class I changes requiring Lender Group review before implementation. Class II changes involve notification in the PNG LNG Quarterly Environmental and Social Report.

No Class I or II Management of Change requests were made this quarter.

3.5 Environmental and Social Milestone Schedule

The Project finalized the Production ESMP during this quarter and received approval from the Lender Group's Independent Environmental and Social Consultant (IESC), thereby meeting requirements of the Completion Indicator for Milestone Schedule 6.

Requirements of Milestone Schedule 15, Offset Mitigation, were also fulfilled during the quarter.

04 PROCUREMENT AND SUPPLY

Through the efforts of the Business Development team and the Enterprise Centre, the Project continues working with local suppliers to build their capacity and optimize their participation in Project activities. Project contractors also support the development of local suppliers, including Lancos, through their own initiatives.

4.1 Supplier development

The Project continues to mentor and develop Lancos, which provide key sources of labor supply, particularly across catering, camp maintenance, and security. Lancos are also essential for providing the supply of fresh produce for camp kitchens, heavy equipment rental, construction machinery, vehicle, boat and truck hire, and timber, wooden pallets and spare parts to the Project. To date, more than 2.26 billion Kina (US$940 million) has been spent on Lanco services, with 173 million Kina (US$72 million) spent in the third quarter alone.

Other non-Lanco Papua New Guinean businesses provide services such as equipment hire, grass cutting and camp rental to the Project. Together, more than 691 million Kina (US$287 million) was spent on Lanco services and these additional services during the quarter. This brings the total in-country in-Kina spend to more than 9.71 billion Kina (US$4 billion) for the Project-to-date.

4.2 Enterprise Centre

Through its various programs, the Enterprise Centre has assisted more than 16,000 Papua New Guinean entrepreneurs to date. In addition, the Centre has provided the equivalent of more than 9,000 training days and 1,200 mentoring days to Papua New Guinean businesses since it commenced activities in 2010.

4.2.1 Business assessments and training

The Enterprise Centre achieved a milestone with its 300th business assessment completed; one of the 31 assessments conducted during this quarter. Fifteen of these were for Lancos, as shown in Figure 4.1. Most assessments were conducted in major regional towns, such as Lae, Madang and Mt. Hagen, as well as various Upstream villages. To date, 315 business assessments have been completed for Papua New Guinean businesses. The equivalent of 611 training days were also delivered to Papua New Guinean businesses during this quarter, as shown in Figure 4.2.

International Organization for Standardization training continues to prove popular, with the Centre facilitating two workshops for 34 participants. The workshops covered Occupational Health and Safety Management Systems, and Management Systems Auditing Techniques.

Figure 4.1

Number of Enterprise Centre assesments for Lancos and non-Lancos

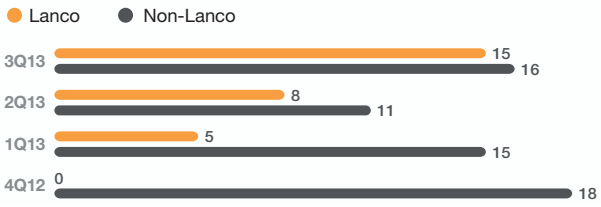
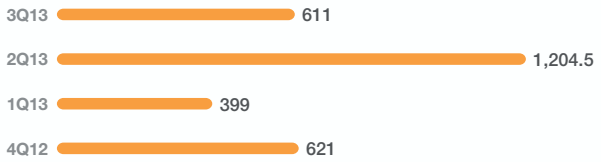


Figure 4.2

Number of capacity building training days



4.2.2 Communications activities

Over 500 entrepreneurs and job seekers attended the Enterprise Centre's inaugural Small to Medium Enterprise (SME) Leadership Awards held in July. The awards recognized and promoted 270 Papua New Guinean companies that had undergone business assessments through the Centre in the past three years. Awards were based on the eight elements the Centre uses to assess companies: governance and organization; business management; financial management; human resource management; asset management and inventory control; safety, health and environment; quality control; and reputation and image.

A panel of experts representing organizations such as the International Finance Corporation, Asian Development Bank, National Development Bank, Esso Highlands Limited, Columbus Consulting, Nationwide Microbank and Port Moresby Chamber of Commerce, selected the winners for each award category.

During the SME Leadership Awards, the Centre officially launched its third annual assessment magazine, which profiles the 64 companies involved in business assessments in 2012, and the PNG Employment and Supplier Database.

The new PNG Employment and Supplier Database expands on the existing PNG Supplier Database as it includes business opportunities from projects other than the PNG LNG Project. It also provides a service to connect job seekers with employment opportunities.

Some of the key benefits for job seekers include automated email notification of job vacancies, automated generation of resumes and personal profiles, and the ability to quickly and easily submit multiple job applications. Papua New Guinean business benefits include automated email notification of business opportunities, free advertising for their business or business opportunity, and an automated generation of their company profile.

The Enterprise Centre conducted a nation-wide roadshow this quarter to promote the new database to students from universities and other tertiary institutions. Over 1,000 students and interested job seekers attended workshops held as part of the roadshow.

Winners of the SME Leadership Awards

Peter Graham, Managing Director, Esso Highlands Limited, launching the 2012 Assessment Magazine

4.2.3 PNG Supplier Database management

More than 430 people used the PNG Supplier Database online dashboard during this quarter, compared with some 140 people in the second quarter 2013. This increase is attributed to interest generated by the SME Leadership Awards and the PNG Employment and Supplier Database roadshow.

05 COMMUNITIES

The Project works together with communities on health, safety and local business initiatives, as well as new infrastructure development, to help deliver long-term community benefits.

5.1 Structure and relations

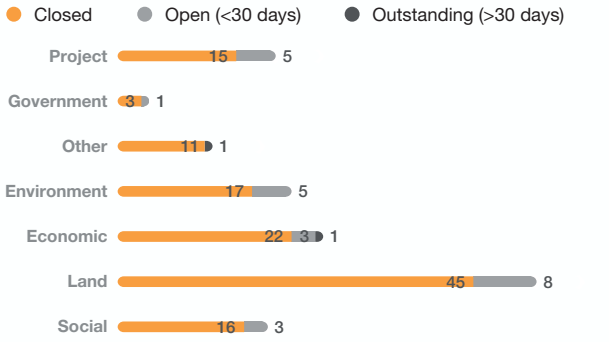
To effectively interact with communities and manage potential construction impacts, the Project follows a series of community impact and engagement management plans. These plans are shown in Figure 3.1.

5.1.1 Community grievance management

During this quarter, the Project registered and categorized 156 grievances, with most received from communities along the pipeline ROW. As shown in Figure 5.1, 129 grievances were closed during this quarter, with 92 percent of these closed within the 30-day target.

Figure 5.1

Number of grievances registered during the third quarter by closure status



Land-related grievances remain the primary concern for communities, comprising 34 percent of grievances recorded this quarter. Most land-related grievances regarded perceptions that gardens may not have been adequately assessed for compensation. Other concerns related to land access agreements.

As construction begins to scale down and demobilization increases, the Project is receiving more economic-related grievances. These accounted for more than 16 percent of the total grievances received during the quarter. Of these, 11 percent related to employment opportunities. Other economic concerns were raised about access to local business and community development opportunities. The Project is providing demobilized workers with training intended to help them build long-term employment opportunities outside the Project. The Enterprise Centre also continues to help local businesses identify long-term development opportunities.

More than half of the environmental grievances recorded during this quarter were related to concerns about temporary water discoloration due to water source disturbance. Other grievances addressed were for cultural heritage concerns, such as the Project's impact on sacred sites.

Twenty grievances were reported with regard to Project activities. These grievances, accounting for almost 13 percent of the total, were about fences and ditches that may have been damaged as a result of construction activity.

Social grievances continue to focus on labor and worker conditions as well as claims that some resettlement packages may not have been paid.

A field officer providing feedback to a grievant in the Benaria area

The Project's focus on maintaining appropriate engagement with communities has resulted in the closure of more than 150 grievances this quarter, including some outstanding from previous quarters. At the end of this quarter, 27 grievances remained open.

5.1.2 Project Induced In-Migration

Stakeholder meetings are progressing, including meetings with the Papua New Guinea Institute of Medical Research (IMR), to incorporate relevant data from the Integrated Health and Demographic Surveillance System (iHDSS) into the Project Induced In-Migration database. The iHDSS collects health and socioeconomic data from key Project areas and two matched control sites. The two Project-related areas are located in Hides and Hiri, while the two matched control sites are at KarKar Island and Asaro Valley. Data collected through the iHDSS will enable the Project to monitor in-migration activities in communities and detect deviations from normal Papua New Guinean growth and migration patterns.

5.1.3 Fisheries

Fisheries catch landing surveys continue in both Caution Bay and Omati. During this quarter, 209 surveys were conducted in Caution Bay, while 150 surveys were completed for the Omati area.

From these surveys, some 260 interviews were conducted in Caution Bay with approximately 9,000 kilograms of fish catch recorded, while 143 fishers were interviewed in the Omati area with more than 1,400 kilograms of fish catch recorded.

The Fisheries team is compiling a bi-annual fisheries report that compares the results of catch landing surveys conducted in Caution Bay and Omati in the first and second quarter 2013. General findings indicate community participation in the survey has increased, which has provided more accurate information about the amount of fish caught in each survey area.

The Project continues to recruit and train local assistants from Caution Bay and Omati villages to conduct the quarterly surveys.

5.1.4 Social considerations for logistics activities

An administrative clerk was appointed during this quarter to support the Barging Route Waterways Memorandum of Understanding Committee. The clerk's appointment fulfilled a Project commitment to provide an administrative resource to this Committee.

At its most recent quarterly meeting, the Barging Route Waterways Memorandum of Understanding Committee addressed the refurbishment of Ero Hall as a priority infrastructure project. Procurement and logistical arrangements are underway for the Hall refurbishment.

5.2 Infrastructure, services and resources

As part of the Project's continued support to education in Papua New Guinea, 80 Toea money management games were distributed to schools located near the LNG Plant site this quarter. The game, which allows for two to eight players, aims to teach students how to make smarter financial choices in life, and to always consider the impact of spending today compared with saving for the future.

The Toea money management game is just one of the many initiatives the Project is leading to support Papua New Guinean schools.

Contractors are also providing their own support to schools. For example, a drilling contractor is providing computer training for high school teachers in Hela and donating physics, chemistry and biology textbooks to students. Another drilling contractor donated 20 boxes of English reading practice books to five elementary and primary schools in the Upstream area during this quarter.

Distribution of the Toea money management game at Boera Primary School

Students of Papa Primary School opening boxes containing the Toea money management game

In addition to supporting schools, the Drilling organization and the Project's Socioeconomic team are working with communities located near the wellpads to develop five community centers, which will provide a meeting place for local clans. The centers will also enable the Project to meet with communities to address concerns as they arise. Three centers were completed during the quarter, with others to be completed late 2013.

The last of four major LNG Plant site village projects was completed during this quarter, with construction of the new boardwalk for Papa Village. The original boardwalk, made from mangrove wood, collapsed approximately ten years ago. Together with volunteers from the Papa community, the Project helped to construct the new boardwalk, which consists of a 150-metre elevated timber walkway that crosses over mudflats and a tidal stream.

The new structure will provide access for Papa villagers to traditional inland waterways, fishing habitats, hunting grounds and areas for gardening and collecting firewood. It will save village residents over two hours of travelling time on each trip.

The new Papa Village boardwalk

Also in this quarter, the Project helped the Awatangi community located near the pipeline ROW to develop a new market shelter. The shelter will enable this community to establish trade facilities.

In Tagari, the Project is helping to build a community water shelter, which will make water collection, washing and bathing easier for the women of the area.

The new market shelter built for the Awatangi community

The Tagari community water shelter during construction

5.3 Verification, monitoring, assessment and audit

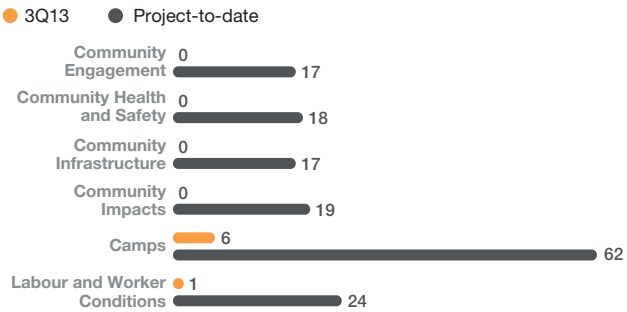
The commitments outlined in six key social management plans form the basis of Project monitoring activities. These plans cover Community Engagement; Community Health and Safety; Community Impacts; Community Infrastructure; Camp; and Labour and Worker Conditions.

During this quarter, seven monitoring events were conducted, as shown in Figure 5.2. Five of these were at different LNG Plant and Marine Facilities contractor camps and related to implementation of the Camp Management Plan. The remaining two monitoring events, regarding both the Camp Management Plan and the Labour and Worker Conditions Management Plan, involved the Hides Gas Conditioning Plant and Hides Wellpads contractor.

Monitoring events continue to focus on camp management to ensure high standards of cleanliness, organization and housekeeping are maintained across the Project.

Figure 5.2

Number of monitoring events against relevant social management plans



Three reporting tools are used to track the Project's conformance with social management plans. These are non-conformances, field observations and positive field observations.

Non-conformances are situations that are not consistent with social management plan requirements and require corrective actions.

Field observations involve an observation, intervention and/or corrective action that is required to prevent a non-conformance. If not corrected in a timely manner, field observations can escalate to a non-conformance. Positive field observations are identified as innovative or excellent performance against social management plan requirements.

As shown in Figure 5.3, there were 16 field observations and six positive field observations recorded during this quarter. No new non-conformances were raised this quarter and all non-conformances raised in previous quarters were closed.

Of the 16 field observations recorded, four were closed, leaving 12 remaining open at the end of the quarter as shown in Figure 5.4.

The six positive field observations related to camp security, camp rules and regulations, recreational facilities and camp organization.

Figure 5.3

Number of non-conformances and field observations raised during the third quarter

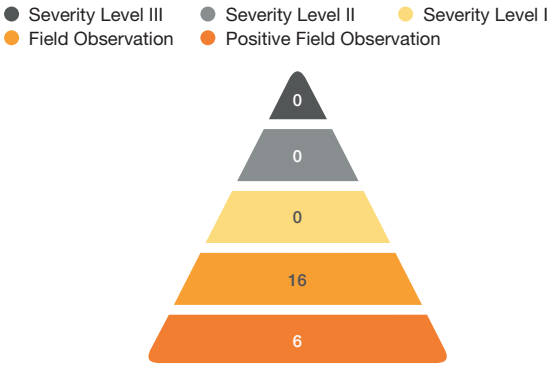


Figure 5.4

Closure status of field observations raised during the third quarter

5.4 Community health

Working in collaboration with organizations such as the IMR and Population Services International (PSI), the Project aims to mitigate and manage potential Project-related health impacts through delivery of its integrated Community Health Impact Mitigation Management Program.

The Program is part of the Project's commitment to building national capacity through engaging with local non-government organizations to develop sustainable health services infrastructure.

Aligned with ExxonMobil's corporate citizenship objectives and based on a framework developed by the International Petroleum Industry Environmental Conservation Association (IPIECA); the Program complies with the International Finance Corporation's guidance notes on Performance Standard No. 4 Community Health, Safety and Security.

5.4.1 Integrated Health and Demographic Surveillance System

The Project's integrated Community Health Impact Mitigation Management Program includes an iHDSS, which collects population and household-level data from key Project areas and two matched control sites to monitor and manage the Project's potential health impacts. The system was established by the IMR under the 'Partnership in Health' program with the Project. During this quarter, the IMR made steady progress with conducting iHDSS census, morbidity and mortality surveys.

The IMR also presented 14 research papers at the 49th Annual Papua New Guinea Medical Symposium in Lae, Morobe Province. The papers covered preliminary findings on the iHDSS and five sub-studies of: non-communicable disease and nutrition; sentinel surveillance; tuberculosis surveillance in the Project impact area; sexually transmitted infections during pregnancy; and tuberculosis surveillance in Kikori.

As part of its work, the IMR is conducting a Maternal and Child Health Study that includes measuring vaccination rates of children in accordance with The Expanded Program on Immunization, established by the World Health Organization in 1974. The Program aims to achieve 90 percent coverage of polio, diphtheria, tetanus, pertussis (whooping cough), tuberculosis and measles vaccinations in infants by 12 months of age. Initial survey results indicate vaccination coverage in the Project impact area is lower than the World Health Organization objectives. For example, the vaccination coverage rate in the Hiri area is 57 percent for diphtheria, tetanus, pertussis, haemophilus influenza type B and hepatitis B. In Hides, the vaccination coverage rate for these illnesses is lower at 24.5 percent. For both areas, vaccination rates dropped between the first dose and later doses. The Project is monitoring vaccination rates to help the IMR determine possible associations between vaccination and birth and infant mortality. This information may also help the Papua New Guinean Government with planning vaccination programs.

The IMR introduced a new sentinel surveillance study during this quarter. This study involves the collection of specimen samples at community clinics and transportation to the National Infectious Disease Diagnostic and Research Laboratory, located in the University of Papua New Guinea School of Medicine and Health Sciences building, for accurate diagnosis. The study will give the IMR and the Government an accurate description of the causes of fever, diarrheal and respiratory illness in the Project impact area and in the two control sites of Asaro Valley and KarKar Island.

The IMR is also continuing its work on a non-communicable disease study to calculate the prevalence of non-communicable illnesses and associated risk factors in the Project area and in the two control sites. To date, 330 people have participated in the study. Preliminary results are expected in early 2014. As part of this research, the IMR developed the first Papua New Guinea-specific physical activity and diet/nutrition measure to understand both physical activity and sedentary behaviors common to communities in Papua New Guinea and their relation to non-communicable diseases.

The new measurement tool is based on a Papua New Guinea-specific physical activity questionnaire, which will be made available to the National Department of Health and other relevant government and non-government organizations once the study is complete.

Veham Peter, iHDSS Reporter and Isabella Parapi, Scientific Officer conduct a demographic and social survey interview in Tafeto Village

Dr. Kevin Soli, recently appointed Research Lead for the sentinel surveillance study

5.4.2 Tuberculosis

During this quarter, the IMR continued tuberculosis surveillance and research in Kikori and expanded this study to include the Hiri area. Early data emerging from Kikori indicates this area has a high incidence of tuberculosis and the potential for drug-resistant tuberculosis. Work in the Hiri area includes surveillance and a health-seeking behavior survey on 400 randomly selected households in the four LNG Plant site villages of Boera, Papa, Lea Lea and Porebada. The health-seeking behavior survey focuses on illness perception and health beliefs, and the relevance of these to the spread of tuberculosis. Data gathered from this survey will be the first of its kind to help researchers understand the potential health implications of the spread of tuberculosis within the Hiri community.

The IMR has completed Global Positioning System mapping of the spatial distribution of tuberculosis cases in the Kikori health catchment area.

Medical scientist Rosemary Simbil prepares paperwork for tuberculosis sampling research

This work is part of household surveying work in 20 of the 42 villages in this area. The mapping will help the IMR create health data maps to identify community access to health care, utilization of care and areas for improvement.

5.4.3 Support to non-government organizations

The Project continues supporting PSI with its implementation of health initiatives as part of the Enhanced Community Health Program.

One of PSI's focal areas is the Water, Sanitation and Hygiene (WASH) Program. As part of the Program, 780 households participated in Community-Led Total Sanitation training during this quarter. This training helps reduce the spread of diarrheal illnesses by raising awareness about good hygiene practices. During the WASH campaign, over 690 WASH kits were distributed to villagers identified by '*helti man*' (healthy man) and '*helti meri*' (healthy woman) ambassadors. Each WASH kit contains a 20-litre bucket with tap, soap, water purification tablets, diarrheal treatment, oral rehydration solution, zinc tablets and interpersonal communication information and brochures.

PSI also conducted Marital Relationship Training sessions for over 580 participants, including some who travelled from neighboring villages to attend the four-day course. The course provides participants with information about Human Immunodeficiency Virus (HIV) prevention, stability in marriage and gender-based violence prevention.

Health and safety training for security and transport company personnel continues, with 25 participants trained during this quarter.

5.5 Community safety

Pedestrian and traffic safety was a focus area this quarter during heavy haul operations from Komo Airfield to the HGCP site. All cargo was transported safely as a result of the efforts of Project teams, contractors and locally engaged traffic controllers, who performed a vital service as the interface between local communities and Project traffic.

Pedestrian safety education was the focus of community engagement activities, particularly near the HGCP site where the Project continued educating local communities about how to safely maintain their traditional access routes to schools and markets given the heavy construction work in this area.

As pipeline construction activities progress, the Project is also increasing its pedestrian safety engagements with communities along the pipeline ROW. For example, the Project has donated materials for villages to build '*haus win*' meeting areas where monthly meetings are held with community leaders to allow communities to raise safety concerns. These meetings also enable Project representatives to provide ongoing information about the ROW construction and heavy equipment safety.

Ibson Goi, Community Affairs Officer for Hides, discussing safety with community members

As part of community safety engagements, workshops are being conducted with women's groups and local schools along the pipeline ROW to educate mothers and schoolchildren about the risks of children playing along the ROW or around heavy equipment. In addition, Project workers are being educated on specific elements with regard to pedestrian and construction safety. For example, during the quarter, specialized training was provided to make Project workers aware of a hearing-impaired boy living in one of the villages along the pipeline ROW. The training aimed to ensure pipeline workers remained aware of the need to help protect the safety of this child, and other children, during construction activities.

A monthly community leader safety meeting at the Yagua 'haus win'

5.6 Community investment

Working together with communities in a culturally appropriate manner, the Project seeks opportunities to deliver sustainable community development. The Project continues to focus its community efforts on supporting local schools, with some examples outlined in *Case Study Two – Enhancing education*.

5.6.1 Community Development Support Plan

The Community Development Support Plan is based on the delivery of three initiatives: Strengthening Social Resilience, Local Economic Development, and Community Capacity Building and Partnerships.

Strengthening Social Resilience

During this quarter, the Project continued its 'Box of Books' school library program, in partnership with the University of Papua New Guinea. The 'Box of Books' program provides primary schools in the Project area with two cabinets filled with books, and training for two teacher-librarians in each school. Teacher-librarian training was provided for six schools in the Hides, Angore and Juha areas and ten schools in the South Koroba and Tari areas during the quarter. To date, 81 teachers have been trained under the program.

The Project also donated 20 school desks each to Lea Lea and Papa primary schools and Redscar High School, logistical support for teachers' in-service training for Kikori and LNG Plant site schools, and support for National Literacy Week activities this quarter.

Local Economic Development

The community-led Agricultural Development Plan in the four LNG Plant site villages of Boera, Papa, Lea Lea and Porebada is focusing on field extension programs, crop success monitoring and preparatory work for planting in November 2013 to coincide with the beginning of the wet season. As part of this work, the Project is helping the National Agricultural Research Institute prepare a humidity chamber for mango grafting.

The work being conducted through the Agricultural Development Plan is valuable in laying the foundation for improving long-term food and cash security for the LNG Plant site villages.

Community Capacity Building and Partnerships

To help community groups and individuals build sustainable capacity, the Project continues to educate communities about the best methods for food processing, nutrition and hygiene. For example, since 2010, the Project has introduced 115 drum ovens and provided training courses across 26 Upstream locations serving 60 active women's groups. The intention is to educate communities about establishing small businesses through food processing of minor commodities such as bread, scones, and roast chickens, as well as household health and hygiene including the nutritional value of different foods.

The success of this training led to the introduction of a train-the-trainer course. During this quarter, Project personnel mentored 40 graduates of this course as they embark on extending the training into their communities.

Graduation ceremonies for both courses were held in August, where 656 trainees were awarded with completion certificates. This brings the total number of people trained-to-date across Upstream locations to approximately 2,500. Many of these participants have also completed the Project's successful Personal Viability training program.

Rebecca Arnold, Lead Media and Communications Advisor, Esso Highlands Limited, presenting graduation certificates during a ceremony in Hides

In addition, the Project is delivering vegetable skills training on basic nursery practices in the Hides area. The training is tailored to potential farmers and to some households that need advice on how to prune citrus trees.

5.6.2 Strategic community investments

Improving access to healthcare in Papua New Guinea is another priority for the Project. During this quarter, the Project worked with the Papua New Guinea Tribal Foundation, MediSend International and Maersk Line to deliver more than 130 pieces of medical equipment to hospitals throughout the Project area.

The equipment and supplies included bedside monitors, x-ray viewing boxes, defibrillators, freezers, electric hospital beds, infant incubators, intravenous pumps, examination lights, microscopes, nebulizers and ultrasound machinery.

Valentina Kaman, Community Investments Advisor, Esso Highlands Limited, presenting the equipment donation to Dr. John Kiap on behalf of Mount Hagen Hospital

The donation program was developed following a Project needs assessment of the health capacity of numerous medical facilities in the Project area and nearby communities. The assessment revealed a critical shortage of equipment in these facilities.

The Project engaged MediSend International, a non-government organization based in the United States, to supply the medical equipment and to provide training for biomedical technicians on the use and care of the equipment. To date, 11 Papua New Guinean biomedical technicians have received this specialized training through MediSend International in Dallas, Texas.

The Project also continues to promote opportunities for Papua New Guinean women. During this quarter, seven women from the Central, Southern Highlands, Hela, and Gulf provinces attended a Global Women in Management alumni program in Washington DC through support from the Project.

Global Women in Management alumni in Washington DC

The program, which is part of ExxonMobil's Women's Economic Opportunity Initiative, aims to train and mentor women from developing nations such as Papua New Guinea. The Papua New Guinean women who attended the most recent course are Global Women in Management alumni from previous sessions and have the skills and professional ability to advance positive social and economic growth in their communities.

At the alumni workshop the women learned to recognize their own personal coaching styles, to strengthen and practice communication skills and to network effectively to increase the reach and impact of their work.

As part of its commitment to supporting education in Papua New Guinea, the Project is working with community-based organizations to open up more educational opportunities for school students. For example, 65 students from 55 schools and tertiary institutions across the country were given the chance to improve their education by being selected to attend the Mike Manning Youth Democracy Camp during this quarter.

Participants of the Mike Manning Youth Democracy Camp with Dame Carol Kidu in Goroka

The Camp provides an opportunity for young people to interact with leaders on a one-to-one basis. It aims to reshape their perspectives on leadership and governance and to train them in the skills to effectively advocate against corruption in Papua New Guinea.

Participants in the Camp are selected annually based on their leadership roles and good standing in their schools. The Project has supported this program since 2011. To date more than 150 students have attended the Camp.

5.6.3 Volunteer programs

The environment was the focus of Project volunteer activities during this quarter. For example, at the LNG Plant site, a team of Project volunteers planted almost 1,000 mangrove seeds as part of a mangrove rehabilitation project along the LNG Plant site foreshore. While there are many different species of mangrove, the volunteers sourced seeds from the local area to enhance their chance of survival.

Volunteers Christine Yango and Dele Jenjet, planting mangrove seeds along the LNG Plant site foreshore

In Lake Kutubu, Project volunteers joined the Lake Kutubu Wildlife Management Area Committee in a clean-a-thon of the lake. A team of 60 people from four communities located around Lake Kutubu worked to remove non-biodegradable rubbish from the shoreline and inside the lake itself. In addition, signs were erected to discourage dumping and other environmentally harmful activities in and around the lake. As part of the clean-a-thon, Esso Highlands Limited donated funding to the Lake Kutubu Wildlife Management Area Committee for rubbish bins and information signboards.

In Port Moresby, a team of over 100 Project volunteers supported the Port Moresby Nature Park by dedicating a weekend of their time to paint fences throughout the Park.

Dale Pittman, Deputy Production Manager, painting a gate at the Port Moresby Nature Park

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CASE STUDY TWO
ENHANCING EDUCATION

Since the start of construction, the Project has committed to building the sustainable capacity of Papua New Guinean citizens through improved educational opportunities and infrastructure.

Some of the many programs implemented by the Project include: the ExxonMobil Science Ambassador Program; teacher training programs; the ongoing donation of school desks for classrooms; and infrastructure support.

ExxonMobil Science Ambassador Program

The ExxonMobil Science Ambassador Program allows students from grades 8 to 12 to learn about the science and petrochemical industry by seeing up close various mineral and chemical samples, even fossils some millions of years old. It aims to improve students' understanding of science, technology, engineering and math, as well as encourage them to consider a career in these areas.

The Program was first implemented during the second quarter 2013 at Port Moresby International School and Redscar High School. This quarter, Esso Highlands Limited ambassadors visited grade 10 students at Redscar High School near the LNG Plant after both participating schools expressed interest in continuing the Program throughout the second half of the school year.

Students from Redscar High School during a Science Ambassador Program session on the Origins of Oil and Gas

The Program is supported by the use of three different science kits: a Rocks and Geology kit; one on the Origins of Oil and Gas; and another on Chemicals. For example, with the Origins of Oil and Gas kit, students can see and handle fossil samples and learn about how they relate to the formation of petroleum over millions of years. Practical exercises encourage children to talk about rock compositions, geology and chemicals.

Supporting tertiary students

For the third consecutive year, Esso Highlands Limited has assisted the University of Papua New Guinea to deliver its Petroleum Geology module to undergraduate students.

Forty-five students recently attended a three-day training course held in Port Moresby, along with five officers from the Department of Petroleum and Energy. Through lectures and group projects, four trainers from ExxonMobil's Melbourne, Australia office covered subjects in the science of oil and gas, including Integrated Basins Analysis, Hydrocarbon Systems and Play Mapping, and Formation Evaluation Using Well Logs. The technical training helps students to understand how to identify a potential oil or gas reservoir, and how to predict how much oil or gas it may hold.

Infrastructure and teaching support

In addition to education programs, the Project continues to provide infrastructure support to schools. To date, the Project has donated over 1,300 student desks, along with books and sporting equipment to schools throughout the Project area. More than 1,500 children's books from the Toea adventure series were also donated to local schools.

Para Elementary School students using Project-built desks

Toea with Papa Primary School students

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CASE STUDY TWO
ENHANCING EDUCATION

During this quarter alone, ten Upstream North primary schools received a boost to their learning resources with approximately 2,500 portable solar lamps donated by the Project to assist students with their home studies. Teachers from 20 elementary schools in the area also received lamps to help support their teaching environments.

The reusable solar lamps have small solar panels on their surface to collect energy and convert this into a lamp for working in the dark. Many students who are unable to access electricity in their homes will now be able to use their solar lamps to complete their homework assignments.

To further support student learning, the Project has distributed over 22,000 school packs of basic school supplies for students across 139 schools.

Students from Mananda Primary School with their reusable solar lamps

Preparing school packs for distibution

The Project has also committed 1.3 million Kina (US$540,800) for larger-scale infrastructure development for schools. For example, with Project support, Idauwi Primary School located near Hides has received eight water tanks and five new gutters to provide students with better access to clean drinking water.

This is part of a Project commitment to provide infrastructure repairs for Tugupawi, Mananda, Juni, Idauwi and St. Paul's primary schools. The Project is using local Lancos for many of the infrastructure works.

The Project is also partnering with the Papua New Guinean Department of Education to support teacher training. This year, more than 120 teachers participated in training to help bridge the gap in teacher knowledge between requirements in elementary and primary schools.

Another 81 teachers have received specialized training as teacher-librarians as part of Esso Highlands Limited's 'Box of Books' school library program. The 'Box of Books' program is conducted in partnership with the University of Papua New Guinea and provides primary schools in the Project area with two cabinets filled with books and training for two teacher-librarians in each school. To date, 36 schools have benefitted from this program.

In addition to Project-led initiatives, the Project is working with community organizations to support educational opportunities for Papua New Guinean students. For example, more than 4,000 students have already benefitted from the 'Come Explore with Us' school excursion program offered at the Port Moresby Nature Park. The Project is a flagship sponsor of this program, which gives students from the National Capital District and Central Province a chance to learn about Papua New Guinea's unique biodiversity.

Education Coordinator Rosie Nakikus leading a school excursion

"Children growing up in Port Moresby don't have the opportunity to engage with nature as much as children living in villages, so for many students this is their first experience to learn about animals and the environment directly. Understanding the importance of the environment will help them make better informed decisions in the future, and this is what our program helps to inspire," said the Park's General Manager, Michelle McGeorge.

As part of this program, the Project has contributed to the cost of two brightly painted buses used to transport students to the Park. The Project has also provided funding for a tree kangaroo exhibit at the Park.

06 COMPENSATION AND RESETTLEMENT

Papua New Guinean households and individuals receive compensation for physical and economic displacement caused by the Project in accordance with the *Oil and Gas Act 1998*. The Project monitors the impacts of physical and economic displacement through both standard of living and livelihood restoration indicators.

6.1 Compensation

A significant milestone was achieved during this quarter when the final two Clan Agency Agreements were completed for the HGCP site. Compensation has now been paid for 90 percent of the HGCP site, with the remaining 10 percent pending a minor, unresolved, internal subclan issue. The Socioeconomic team is engaging with the impacted subclan and will make the final compensation payment once the issue is resolved.

At Komo Airfield, compensation is 75 percent complete, with two remaining clans working to resolve internal land dispute issues. The Project continues to engage with these clans to finalize their Clan Agency Agreements.

A final Clan Agency Agreement was completed and compensation paid for spoil sites at Hides during the quarter. Another six Clan Agency Agreements were signed with the Hagu clan for approximately 8 kilometres of the Hides Wellpad Access Road. All land, except for Hides Quarry 4, has been compensated between the HGCP site and Wellpad B. The Socioeconomic team is working with the clan at Hides Quarry 4 to complete compensation in this area. Land demarcation was completed this quarter from Wellpad B to Wellpad E. Work is underway to finalize agreements and payments for the remaining 20 kilometres of road and associated Wellpads.

In Angore, In-Principle Compensation Agreements were completed to support current construction activities. The Socioeconomic team is engaging with customary landowners regarding land demarcation.

By the end of the quarter, compensation was completed for 56 percent of the pipeline ROW. The Project is now working on land demarcation and Clan Agency Agreements with eight clans covering 31 kilometres of pipeline. In the Upstream South area, five Clan Agency Agreements and associated compensation payments were made for a laydown area, camp and roads in the Kaiam region. Only one 2013 annual deprivation payment remains outstanding.

6.2 Resettlement

Household census and survey work, the signing of compensation agreements and dismantling of abandoned houses is complete in the Upstream North area to allow land access for the pipeline ROW.

The focus of resettlement activities continues to be on final payments for resettled households and rations deliveries for recently accessed sites near Kilometre Points 14 to 20. The pipeline ROW and the Angore Wellpads and Access Roads are the focus of livelihood restoration activities and resettlement monitoring.

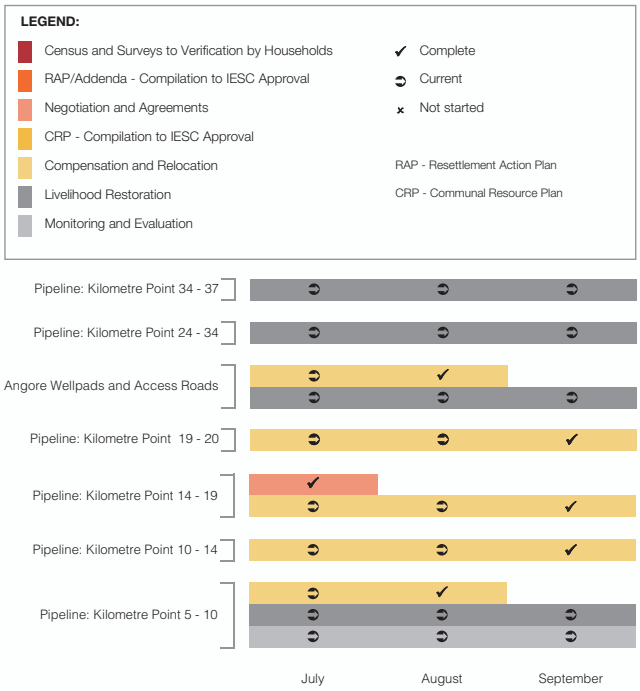
6.2.1 Milestones and progress

Milestones achieved this quarter included the signing of resettlement agreements with households near Kilometre Points 14 to 19.

The status of key resettlement activities during this quarter is shown in Figure 6.1. Longer-term monitoring, evaluation and livelihood restoration phases are occurring in 20 areas across Upstream locations. Therefore, these areas are not shown in Figure 6.1.

Figure 6.1

Status of key resettlement activities



6.2.2 Highlights, achievements and lessons learned

Key activities during this quarter included:

Livelihood restoration: To provide a long-term sustainable supply of food crops for resettled households, the Project is working with more than 30 model farmers to rapidly multiply large numbers of sweet potato vines. The Project buys the vines back for distribution to these households.

Technical assistance is also provided to farmers regarding the production of seeds for vegetable crops such as carrots and cabbages.

Once dried, the seeds collected from flowering carrot plants are used for future planting

The Project continues to use periodic surveys to monitor the progress of newly established food gardens in resettled households and to determine the household food security situation across seasons. During this quarter, food garden surveys were conducted for 55 newly resettled households from the Angore Wellpads and Access Roads along the onshore pipeline route. Survey results showed that resettled households from these locations were highly mobile and cultivated food gardens across several localities to minimize the risk to individual household food security. This is due to the long history of tribal conflict in the Angore area and the potential need to abandon tribal lands.

During the quarter, approximately 33,660 cuttings of virus-free sweet potato varieties were supplied to resettled households from the Angore Wellpads, and to those resettled from the pipeline ROW at Anguale. In Homa and Paua, around 3,700 cuttings from eight virus-free sweet potato varieties were distributed to resettled households. Since livelihood restoration work began in Homa and Paua in October 2012, over 12,000 virus-free sweet potato cuttings have been distributed to resettled households.

Other crops distributed to households from the Angore Wellpads and Homa and Paua areas during the quarter consisted of 218 kilograms of open-pollinated corn seed, 45 kilograms of peanut seed, 131 grafted citrus seedlings, 260 guava seedlings and 920 cassava cuttings. Four vulnerable households at Hides and Komo were supported with crop seeds and sweet potato cuttings, and advised on basic production techniques.

In addition to garden surveys, the Project conducted a livestock baseline survey of 34 households to establish the type and number of animals raised by these households prior to resettlement. Information from this survey will help the Project assess the type of ongoing assistance needed for resettled households with livestock. Preliminary data gathered from the survey indicates households predominantly keep pigs, chickens, sheep and goats.

The Project is already increasing training and outreach services with regard to raising poultry in resettled communities. For example, during this quarter, 43 households from the Angore Wellpads and pipeline ROW locations at Neango and Awatangi received basic training on raising ducks and improving results with native chickens and broiler chickens. The Project also provided resettled households with training on how to construct animal shelters.

A question and answer session during training conducted at Hides

A Field Assistant at Hides demonstrating transplanting of a cabbage seedling

Harvesting the first crop of English potatoes from a farmer's field in Komo

Further technical advice was provided to farmers involved in poultry production in the Hides and Komo areas. In addition, approximately 420 households across the Project area received training and advice on food and cash crop programs.

Monitoring of vulnerable individuals: Five water structures were built to provide a clean water supply for vulnerable households this quarter. In addition, the last of 64 assessments of current vulnerable households was conducted. The Project also committed to assist a vulnerable individual in Homa.

Komo and HGCP: Informal engagements occurred with four households in the HGCP and Komo areas to assess the impact of livelihood restoration activities. Responses from the surveyed households indicated the Project's Livelihood Restoration Program was a major influencing factor in positive perceptions of the Project.

Pipeline ROW and Wellpad Access Roads: The signing of household resettlement and agricultural compensation agreements for Kilometre Points 14 to 19 is complete. Household monitoring surveys were conducted with six households at Paua and four in Homa. Informal engagements were held with another 52 households in the Homa and Paua areas to determine the impact from livelihood restoration activities. Households in these areas also indicated livelihood restoration activities had a positive influence on how they perceived the Project.

07 WORKFORCE

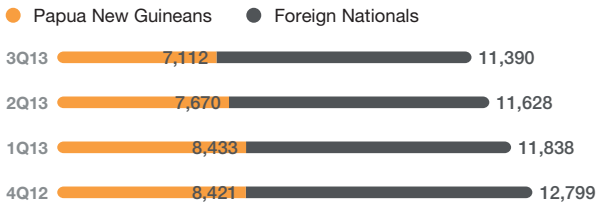
The Project continues to provide employment and training opportunities for Papua New Guinean workers on the Project.

7.1 Development

By the end of the third quarter, the total Project workforce was just over 18,500, with Papua New Guineans comprising 38 percent of the total workforce as shown in Figure 7.1.

Figure 7.1

Project workforce numbers



The workforce is continuing to decline as construction activities are completed in areas such as the Komo Airfield and Upstream South onshore pipeline activities, and worksites demobilize. This is anticipated to continue until the first LNG gas deliveries in 2014.

Due to the need for specialist technical skills for the current construction and commissioning stage, the number of non-national workers remains higher than that of Papua New Guineans.

7.2 Workforce training

Both on-the-job and formal training continue to be provided through the Project to build the skills of Papua New Guinean workers.

7.2.1 Construction training

Even though Project activities are decreasing, the Project is still committed to providing training for its Papua New Guinean workforce. To-date, the Project has delivered 1.96 million hours of training through some 10,600 training courses and activities. During this quarter alone, the Project delivered more than 83,200 hours of training.

Project-provided training

In August, the seventh intake of Juni Construction Training Facility trainees graduated from their Basic Construction Skills Training course. Since the Juni Construction Training Facility opened in 2011, 134 Papua New Guinean trainees have graduated from courses conducted at the Facility. In September, course delivery was transferred to the Work Skill Training Academy, a Papua New Guinea-based company, which is being contracted by Esso Highlands Limited to offer courses on life skills including carpentry and plumbing trades.

International opportunity for Tau

Tau Tauedea, from a small coastal village called Tubusereia in Papua New Guinea's National Capital District, is realizing his dream of working internationally as a Civil/Structural Engineer.

Tau has secured long-term employment with the Hides Gas Conditioning Plant and Hides Wellpads contractor in Singapore after impressing senior management with his adept manual skills, technical knowledge and good work ethic. It took Tau four years to achieve his Civil Engineering degree through the University of Papua New Guinea. He began work at the HGCP in September 2011 and worked his way up to his current role.

Tau believes anyone with a dream can achieve their goals. "If you have a vision you need to chase the dream until it becomes a reality," he said.

Tau Tauedea, Civil/Structural Engineer for the Hides Gas Conditioning Plant and Hides Wellpads contractor

Contractor-provided training

The focus of contractor-provided training has moved from construction-based courses to those that will help Papua New Guinean workers develop skills for future opportunities outside of the Project.

Drivers, Billy Toua and Morea Nono during computer training

For example, a three-month computer training course is being offered to LNG Plant and Marine Facilities contractor drivers to help them develop new skills or build on their existing skills. This computer training is also being extended to other workers, including the contractor's Socioeconomic team.

7.2.2 Contractor workforce training

Contractors continue to focus on safety training to meet Project requirements. During this quarter, over 1,000 workers commenced Working at Heights training and 150 workers participated in Safety Leadership and Supervisor Incident Prevention programs. The Supervisor Incident Prevention program was provided to managers who supervised three or more workers at the HGCP site.

Simulator technology is being introduced to support worker training for production operations. For example, the Project has installed two operations training simulators that replicate the activities of the LNG Plant and HGCP control rooms. These simulators are used to build worker knowledge and skills for monitoring and controlling gas production and plant operations from a central location. Production managers are using the simulators to build the skills of Operations and Maintenance trainees and to give them a working knowledge of field systems and procedures, particularly in the process and utilities areas.

At the LNG Plant site, another simulator has been introduced to give already experienced ship pilots an introduction to terminal operations at the LNG jetty.

Also at the LNG Plant site, some non-national workers are passing on their trade knowledge to local workers so this knowledge remains once they leave. For example, some non-national piping workers are sharing knowledge about safe pipe grinding, oxy-cutting and welding work. Scaffolders are also sharing their trade knowledge about quality controls required to build scaffolds, such as suspended cantilever, tower and bridge scaffolding. Papua New Guinean workers who are learning these trades are able to bring this experience, along with the safety culture they have developed through the Project, back to their villages and apply it to potential future roles.

Computer simulator prepares ship pilots for LNG terminal navigation

Hi-tech computer simulation equipment is being used to train ship pilots in preparation for the production phase of the LNG Plant site.

The LNG Plant Marine Operations team is using a purpose-built LNG ship bridge computer simulator to familiarize already experienced pilots with berthing ships at the new LNG terminal.

Tim Kelly, Marine Superintendent, Esso Highlands Limited, said the simulator provided real-life scenarios for the pilots.

"Pilots have views of Caution Bay through the 'windows' of the simulator. It looks like a real ship's bridge except that it is made up from computer images," he said.

Tim said the bridge simulator felt and moved like a real LNG ship, with simulating tugboats and a safety patrol boat that attend to the tanker. It also uses realistic simulated communication systems.

"Because every port is different, this simulator allows us to familiarize pilots with the types of ships and the marine terminal approach channel in Caution Bay while minimizing risk," he said.

PNG Port Authority personnel will begin training on the life size equipment in Brisbane, Australia in early 2014.

The control panels and 'windows' of the simulator

A worker from Boera Village practicing his drilling skills as a Piping Support worker

Scaffolder Gahusi Lahui Morea, from Porebada, with his Laydown Foreman and Supervisor

As part of demobilization activities, Project contractors are supporting workers with the transition from Project-related work to new opportunities. One example is the transition training program offered at the LNG Plant site. This four-day program was introduced in June 2013 to equip Papua New Guinean workers with the knowledge and skills to help them seek and apply for employment opportunities outside of the Project. To date, more than 950 Papua New Guinean workers have completed the voluntary program.

Transition training program facilitator Koani Pune with trainee Kohu Nao Ani from Lea Lea Village

7.2.3 Graduate programs

The second intake of Esso Highlands Limited engineering graduates has returned from 18 months of training in Melbourne, Australia, to join Esso Highlands Limited's Operations Technical team in Port Moresby. The first intake of graduates continues to support the Operations Technical team with commissioning and start-up of equipment for the LNG Plant, as well as technical monitoring of equipment that is already in service. The third intake of graduate engineers is undertaking training in Australia to prepare them for their roles with the Operations Technical team.

7.2.4 Operations and Maintenance training

The second intake of Operations and Maintenance trainees successfully completed their second trimester of study in Malaysia, where they increased their skill levels and implemented ExxonMobil's personal risk assessment tools, such as Observations and Interactions and Near Miss reporting. The students also participated in a one-day workshop in Papua New Guinea during the term break, where they met with members of the Production leadership team.

In the third trimester they will continue to gain skills in areas including process safety, firefighting systems, analytical troubleshooting, hazardous area electrical wiring, and high voltage equipment operation and maintenance.

The first intake of Operations and Maintenance trainees is continuing on-the-job training with LNG Plant personnel.

Operations and Maintenance trainee Greg Kero, reviewing the HGCP control system overview

7.2.5 Above Field workforce training

In September, the Project introduced an Aiming for Excellence training course for Esso Highlands Limited employees and contractors. Through encouraging continuous development using a combination of executive coaching and responsible workplace practices, the course intends to build a workplace culture of excellence. It focuses on exploring beliefs, values, behaviors and skills important in sustaining a mindset that aims for excellence.

Aiming for Excellence supports the successful Culture by Design initiative '*Em pasin bilong ExxonMobil long PNG*' (The way we work at ExxonMobil in PNG), which is being implemented throughout the organization. Both the Aiming for Excellence course and the Culture by Design initiative are designed to build the culture of the new Production organization and encourage understanding of the core values, behaviors and expectations necessary to become a high performing organization.

7.3 Health management

Food and water safety, clinical services and industrial hygiene were the focus of Project health activities during this quarter. The Project also increased worker awareness about vector-borne illnesses.

Monitoring of contractor health programs continues, with all planned health activities completed as shown in Figure 7.2.

7.3.1 Camp and contractor health support

The mobilization of new camps along the onshore pipeline route and the relocation of drilling sites in Hides meant health activities focused on food safety, potable water supplies and clinical operations during this quarter.

Despite the high level of activity in new and relocated camps, health programs continued to achieve Project standards as shown in Figure 7.3.

Figure 7.2

Number of planned and completed health activities during the third quarter

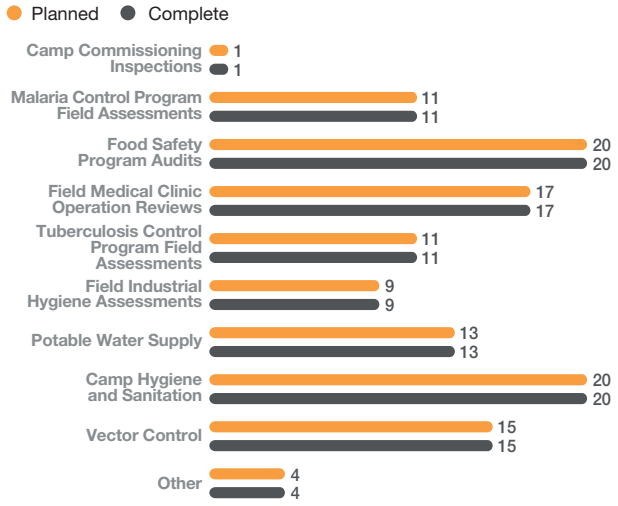
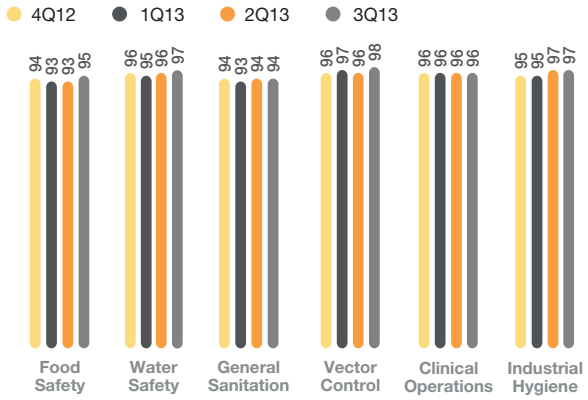


Figure 7.3

Percentage of camp adherence to Project specifications by health category



7.3.2 Leading and lagging indicators

The Project's health program outcomes are monitored with both leading and lagging indicators. Leading indicators demonstrate the Project's proactive management of worker health, for example, by using initiatives such as the Tuberculosis Control Program to minimize the risk of tuberculosis exposure in the worker population. Lagging indicators enable the Project to track the effectiveness of health programs by recording actual cases of illness.

Malaria and tuberculosis

No cases of malaria have been contracted in Papua New Guinea by a non-immune[1] Project worker since October 2011.

During this quarter, there were 24 malaria cases involving semi-immune[2] personnel; a decrease from the 27 cases reported in the second quarter 2013. This decrease can be attributed to the Project's emphasis on prevention and worker education.

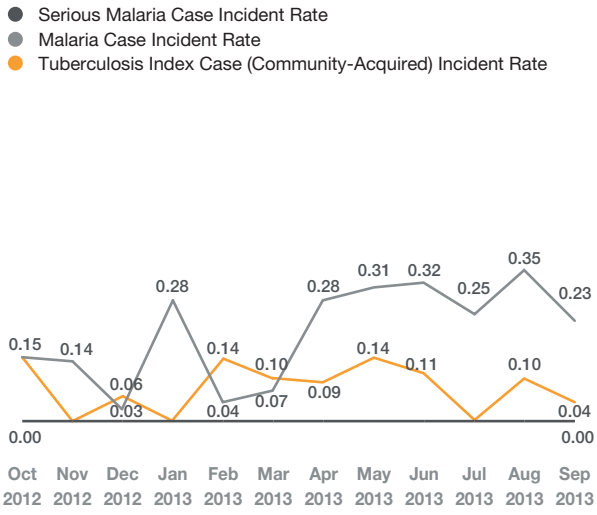
The Project is also effectively managing tuberculosis through early detection, isolation, diagnosis and referral off-site for the treatment of identified cases, in accordance with the Tuberculosis Control Program. GeneXpert® diagnostic equipment is proving to be a vital component in the early detection and management of tuberculosis, reducing the risk of transmission in the worker population.

During this quarter, four Tuberculosis Index Cases (community-acquired) were recorded, a decrease from the second quarter 2013. Each case was managed with isolation and referred off-site for appropriate treatment and to minimize the risk of further transmission.

Figure 7.4 shows the incident trends for both malaria and tuberculosis.

Figure 7.4

Malaria and tuberculosis case incident rates per 200,000 work hours



Malaria

The Project continues to monitor malaria diagnostic results using the Australian Army Medical Institute for quality assurance. This approach is delivering a high level of confidence with malaria diagnosis.

Compliance with the Malaria Control Program remains high, with contractors maintaining 95 percent compliance during this quarter.

1 A non-immune individual is a person who was not born and raised (at least to the age of five years) in a location that has malaria exposure.
2 A semi-immune individual is a person who was born and raised (at least to the age of five years) in a location that has malaria exposure.

Tuberculosis

Tuberculosis Control Program compliance continues to improve, reaching 97 percent this quarter, compared to 96 percent during the second quarter 2013.

Food and water safety

Food safety compliance has increased from 93 percent in the second quarter 2013 to 95 percent this quarter. By the end of the quarter, the Project had served approximately 37 million meals to the workforce, with only one food-borne illness case in 2010 occurring at a Project managed camp. This reflects the ongoing effort by the Project, contractors and caterers to achieve and maintain a high standard of food safety.

Water safety compliance increased to 97 percent this quarter through a focus on ensuring adequate potable water for the Hides area and along the pipeline to support the mobilization of new worker camps. To date the Project has supplied almost 300 million litres of potable water to the workforce, with only one occurrence of water-borne illness in 2011 at a non-Project-dedicated Lanco managed camp.

Camp hygiene and sanitation

Close monitoring of sanitation and hygiene standards across Project camps has resulted in 94 percent compliance, which is consistent with the second quarter 2013. The Health team continues to monitor compliance with hand washing and laundry procedures, as well as cleaning of ablutions in all Project camps.

Vector control

Toolbox talks and newsletters were among the communication methods used during this quarter to increase worker awareness of the risks and precautions related to the mosquito-borne dengue and chikungunya illnesses.

The Health team also worked closely with snake experts from the University of Papua New Guinea to support the relocation of over 130 snakes from the LNG Plant site. Of the snakes removed, 16 were considered venomous.

The Project's vector control compliance score increased this quarter to 98 percent, compared to 96 percent in the second quarter 2013.

Clinical operations

Clinical operations are maintaining a high level of performance, with compliance ratings remaining at 96 percent.

A separate assessment was conducted in all clinics during this quarter regarding the management of controlled substances. Assessment results indicate that the medical provider is operating at a high standard.

An emergency response drill was also conducted to simulate a gas leak during operation of the onshore pipeline. The drill was used to test the effectiveness of communications between departments and to assess emergency response times. Lessons learned from the drill will be integrated into Production emergency response procedures.

Industrial hygiene

The Project is maintaining a high industrial hygiene compliance score of 97 percent. During this quarter assessments were conducted across Project sites to determine compliance with radiation, blasting, welding and personal protective equipment procedures. Training on potential key health risks was also completed for all commissioning workers before the introduction of commissioning gas at impacted worksites. A health hazard inventory regarding potential workplace health hazards and controls was developed and communicated to the Production team.

General illness events

Six dengue cases were reported this quarter, with one case occurring to a Production employee and five cases occurring to Project construction workers. Five cases were community-acquired, and one case was acquired outside of Papua New Guinea.

The Project continues to monitor its workforce to mitigate outbreaks of communicable diseases in Project camps. For example, one isolated case of hepatitis A and one isolated case of hepatitis B were diagnosed this quarter. Both patients received medical attention and were isolated, which prevented transmission to other workers.

The Project also continues to monitor illnesses such as typhoid in communities surrounding its worksites to minimize impact to the Project workforce.

Medevacs and medical transfers

Sixteen medevacs were undertaken on the Project during the quarter. None of these were work-related. All were for personal health conditions not related to work on the Project.

Of the 131 medical transfers conducted during this quarter, two were due to work-related injuries while the remaining transfers were for personal health concerns.

7.3.3 Other strategic initiatives

The Health team is planning the transition of health-related activities to the Production team in preparation for commencement of the production phase. As part of this approach, the Health team is supporting demobilization and transition activities on worksites such as the Komo Airfield.

7.4 Safety management

Regrettably, there was a fatality on the Project during this quarter. The incident involved a contractor working to align two sections of pipe on the onshore pipeline when one section moved unexpectedly causing fatal injuries to the worker.

The Project is greatly saddened by this tragic event and expresses its deepest sympathies to the family and friends of the worker involved.

Relevant authorities were immediately notified and an incident investigation was conducted. As a result of the investigation, specific mitigations were implemented to address the identified causes. Key learnings from this incident have been shared across worksites to prevent similar incidents.

The Project continues to focus on fatal risk mitigation and the prevention of higher potential incidents. Quarterly analyses are conducted of higher potential incidents, and from these the Project develops focus areas to drive continuous performance improvement. Greater levels of safety awareness and the implementation of structured improvement initiatives have resulted in a continued decline in higher potential incident rates since the first quarter 2012.

Commissioning gas was introduced into the section of pipeline from the Kutubu Central Processing Facility to the LNG Plant and the Plant itself, this quarter. Effective planning, communications, and teamwork between several Project organizations contributed to the successful achievement of this key Project milestone.

This major achievement brings additional hazards, as some parts of the facilities are now designated hydrocarbon live areas. Therefore, the focus of safety training has shifted to educating construction workers about operational risks that may be encountered during commissioning and production. The Project continues to train workers in Esso Highlands Limited's Production Work Management System so they may safely perform construction activities while working in proximity to hydrocarbons.

With the introduction of any new hazard, the workforce must know how to respond in the event of an emergency. Before the introduction of commissioning gas, some 8,000 construction workers at the LNG Plant participated in an emergency drill to familiarize personnel with emergency scenarios involving hydrocarbons. The drill was successfully completed and lessons learned will be applied during the commissioning and production phases.

The Safety Champions initiative continued this quarter, with 88 workers completing the training. Since its introduction in 2011, the Safety Champions initiative has proven successful with both workers and contractors. More than 1,400 workers have participated in this initiative Project-to-date.

Demonstrating safety leadership

"We don't just train people about safety, but how to portray leadership, support their supervisors and respect the different cultures on the Project," said Safety Training Advisor Mary Anda, Mary participated in one of the first courses conducted under the Project's Safety Champions initiative, and her performance in that course earned her the title 'Champion of Champions'. It also led to Mary earning her current role as Safety Training Advisor with Esso Highlands Limited.

Mary says that in her experience of delivering safety training to workers, she has found that many participants say they not only walk away with knowledge on safety, but also on what they can do to help others who don't know how to work safely.

"Course attendees come to understand that we are all part of a big puzzle, and that each part is important in making the big picture. I always point out to them that we can only try our best to help others be safe, and always approach someone to let them know that what they are doing is a safe or unsafe act," she said.

Mary Anda, Safety Training Advisor, Esso Highlands Limited

The LNG Plant site's Incident and Injury Free® program continues to play a key role in building a strong safety culture at the site.

A graduating class of Safety Champions

During this quarter, more than 650 LNG Plant site workers participated in the program. To date, over 13,650 workers have completed Incident and Injury Free training.

LNG Plant Senior Project Manager Yow-Yeen Lee said he was impressed with the success of the Incident and Injury Free program. "We are always looking to encourage our teams to go that extra mile for safety," Yow-Yeen said. "Our Project is quickly finishing up and we need to finish strong. This team does a great job at supporting our efforts."

Safety lessons and best practices from all Project sites are being shared with the newly mobilizing Permanent Facilities Compound team.

LNG Plant senior management joining in with early morning toolbox talks

From left to right: Akira Fujisawa, Project Director, Chiyoda and JGC Joint Venture; Young-Hoo Kim, Project Manager, Daewoo; Shinsuke Oda, Site Director, Chiyoda and JGC Joint Venture; Yow-Yeen Lee, Senior Project Manager, Esso Highlands Limited; and Atwell Goins, Construction Area Manager, Esso Highlands Limited

7.4.1 Leading indicators

The Project is maintaining its strong performance for core safety processes such as Job Safety Analysis and Observation and Interaction. Participation levels for these processes are shown in Figures 7.5 and 7.6.

To date, over 1.8 million Job Safety Analyses and more than 1.7 million Observations and Interactions have been conducted across the Project, which has exceeded target participation levels.

7.4.2 Lagging indicators

Figure 7.7 shows Project incident trends are continuing to improve. By comparison, Figure 7.8 illustrates Project work hours, which are declining with the demobilization of some worksites.

7.5 Worker welfare and conditions

The Project is meeting its commitments made under the Labour and Worker Conditions Management Plan and the Camp Management Plan through maintaining high standards of worker welfare and conditions.

Figure 7.5

Number of Job Safety Analyses conducted by quarter

Figure 7.6

Number of Observations and Interactions conducted by quarter

Figure 7.7

Project incident rates by quarter

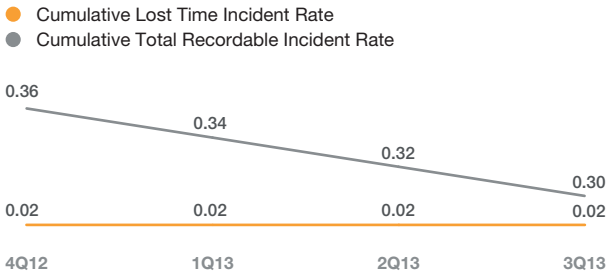


Figure 7.8

Project work hours by quarter

NOTE: Project-to-date work hours totalled 166,800,216.

7.5.1 Camps

An appreciation day was held in August to recognize the safety performance of the LNG Plant site and the outstanding camp service provided by one of the Project's Lanco contractors. During the day, the Laba Alliance Group was recognized for serving over 30 million meals to workers and for playing its part in raising camp standards through consistently delivering quality in housekeeping and maintenance.

Workers attending the appreciation day in August

Also in August, the Komo Main Camp was handed over from the Komo Airfield construction contractor to the Project. It will continue to operate to support onshore pipeline activities and Komo Airfield transit operations. The Komo Pioneer Camp, established in 2009 as a base to build the Main Camp, was demobilized this quarter.

Camp numbers have reached their peak at the HGCP and Wellpad sites, with several major contractors undertaking work in the Hides region.

7.5.2 Labor and worker conditions

The first Workplace Pulse Survey was conducted this quarter to gauge worker response to the *PNG LNG Plant Site Newsletter series*. The quarterly survey involved interviews with Papua New Guinean and non-national workers to capture feedback from newsletter readers. Feedback received is analyzed to enable improvements in future publications.

A Workplace Pulse Survey being conducted

For many Papua New Guinean workers in administrative or housekeeping roles, witnessing site construction is not a regular occurrence. To broaden these workers' understanding and to develop a sense of pride for their contributions to site, the Project is providing weekly site tours of the LNG Plant site for the Above Field workforce. To date, 524 workers have participated in 29 site tours.

Workers continue to express their pleasure of seeing the site and being given the opportunity to learn more about what happens in the field.

A group of Above Field workers during an LNG Plant site tour

As the Komo Airfield completes its final stages of demobilization, the contractor is aiming to retain as many local employees as possible through to the end of construction and reinstatement works. This is helping the Komo Airfield contractor to maintain positive community relations throughout the demobilization process.

Project launches career

Lea Lea fisherman Nou Avuru is building a new career with experience he gained on the Project. Since acquiring new skills through the Port Moresby Construction Training Facility, Nou has worked as a carpenter and steel worker at the LNG Plant site and as a steel fixer at the HGCP. "The experience I've gained is not like anything else I've done, I am so grateful for the opportunity to develop my skills," Nou said.

To help workers like Nou transition to new opportunities after demobilization, the LNG Plant site is offering training on how to create a résumé, finding jobs, and how candidates should conduct themselves in an interview. More than 950 workers have participated in the voluntary training since it was introduced in June 2013.

Nou Avuru secured a job at the HGCP after demobilization from the LNG Plant site

08 CONFORMANCE

The Project uses a combination of verification, monitoring, assessments and audits to ensure construction activities conform to environmental commitments outlined in the ESMP.

8.1 Verification

In the third quarter, the Project Field Environmental team streamlined its resources and consolidated support on Upstream North locations where final construction activities are concentrated. They also supported early commissioning activity at Upstream South locations and at the LNG Plant site.

The team is engaging wastewater and reinstatement technical experts to update Project monitoring and verification skills for current construction requirements.

8.2 Monitoring

Monitoring conducted by the Project and its contractors during this quarter is outlined in the following sections.

8.3 Assessments and audits

In addition to Project verification and monitoring conducted by the Field Environmental team, contractors conduct their own ongoing assessments and audits. For example, at the HGCP site, reports from weekly worksite inspections are submitted to a central database, which enables the identification of focus areas for improvement. In August, the need for greater focus on weed and plant pathogen control was identified at the site.

The IESC completed its ninth site visit in July. The report from the IESC's previous visit in June 2013 is published on the Project website.

Visit the Project website at
www.pnglng.com

8.4 Incidents, non-conformances and corrective action

8.4.1 Incident summary

Incidents are classified by severity as shown in Figure 8.1. Sixty-five environmental incidents, all classified as Severity Level <0, were recorded during this quarter. All of these incidents related to minor hydrocarbon or chemical spills, with the average spill volume being 5.2 litres. No environmental incidents equal to or greater than Severity Level 0 were reported, so the Project was not required to notify the IESC or the Papua New Guinean Department of Environment and Conservation.

Five near misses occurred during the quarter. These related to spills from containment structures.

The Project conducted investigations to identify and correct the causes of all incidents and near misses. Causal factors for each incident recorded during this quarter have been identified and are outlined in Figure 8.2.

Figure 8.1

Number of environmental incidents during the third quarter by Severity Level

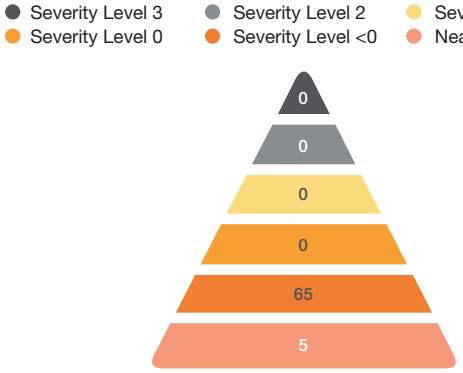
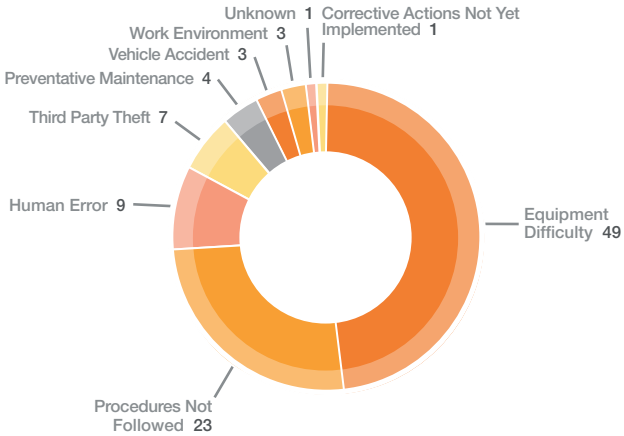


Figure 8.2

Percentage of environmental incidents during the third quarter by causal factor



8.4.2 Non-conformance and field observation performance

Non-conformances and field observations are used to verify the Project's environmental performance. Field observations require intervention and/or corrective actions to prevent them from becoming non-conformances. A non-conformance is a situation inconsistent with ESMP requirements. Examples of good environmental practices are recorded as positive field observations.

During this quarter, 37 positive field observations were recorded. These related to the application of management plans for erosion and sediment control, ecological management, and waste management.

The Project raised 76 field observations and two Severity Level I non-conformances. Most field observations related to waste, erosion and sediment control, spill prevention and response management.

One Severity Level I non-conformance was raised when a wastewater treatment plant at a new Project camp did not achieve the required stabilization within the prescribed 90-day period. Corrective actions included a vendor assessment of inflow rate, plant modifications and the installation of replacement mechanical parts. Further monitoring of the plant showed improvement in discharge quality and the achievement of stabilization, resulting in closure of the non-conformance. The second Severity Level 1 non-conformance, reported in late September, involved the distribution of the Priority 1 weeds Anglestem Willow Primrose *Ludwigia leptocarpa* and Siam Weed *Chromolaena odorata* within a Project worksite beyond baseline conditions. Corrective actions, to be implemented in the fourth quarter 2013, will include increased monitoring of vehicle and equipment washdown by contractors, as well as updating of the weed monitoring register and additional weed control.

Non-conformances and field observations recorded during this quarter are illustrated in Figure 8.3, with the closure status of these non-conformances and field observations shown in Figure 8.4.

Figure 8.3

Number of environmental non-conformances and field observations during the third quarter by Severity Level

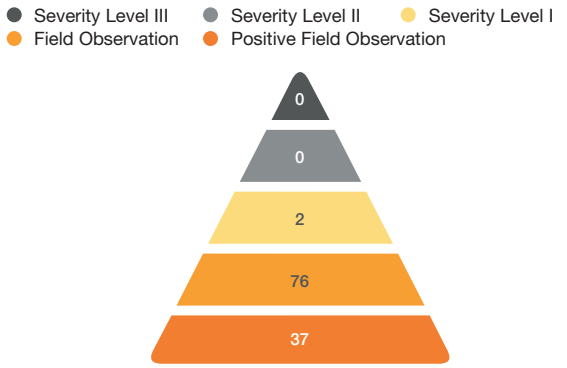
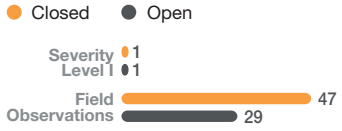


Figure 8.4

Number of environmental non-conformances and field observations during the third quarter by closure status



09 POLLUTION PREVENTION AND ABATEMENT

The Project proactively implements measures, such as recycling in preference to disposal, to minimize pollution across all worksites.

9.1 Air emissions

Sources of Project air emissions include dust from exposed earthworks and roads, exhaust from incinerators and construction equipment, and greenhouse gas emissions from combustion engines and fugitive plant emissions.

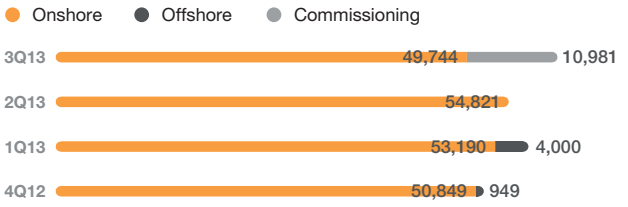
Even with Papua New Guinea's high rainfall, Project worksites can still become dry and require dust mitigation measures. For example, the LNG Plant site had limited rainfall during the third quarter, so 13,836 cubic metres of treated wastewater was reused to control dust on the site.

The permanent incinerator at the Hides Waste Management Facility, which became operational in the second quarter 2013, is initially being used for the disposal of non-restricted materials while work takes place on enhancing electrical and instrumentation measures to ensure waste is incinerated at the optimum capacity. In the meantime, temporary construction incinerators are being used as a contingency. During scheduled maintenance of the construction incinerators, there was a need identified for relining of refractory surfaces. Refurbishment of the temporary incinerators has commenced with materials ordered to complete maintenance works.

The Project's greenhouse gas emissions are calculated based on direct fuel use. Indirect sources, such as purchased electricity, are not included. During this quarter, onshore and aviation fuel use equated to a greenhouse gas emissions value of 49,744 tonnes of carbon dioxide equivalent. For the first time, greenhouse gas emissions factors for flaring during commissioning of natural gas are included in the Project's emissions calculations. Greenhouse gas emissions attributable to flaring during the quarter were 10,981 tonnes of carbon dioxide equivalent. Figure 9.1 shows the Project's direct greenhouse gas emissions.

Figure 9.1

Greenhouse gas emissions (tonnes of carbon dioxide equivalent) per quarter



NOTE: Emissions calculations are based on the Australian Government Department of Climate Change and Energy Efficiency, National Greenhouse Accounts Factors, July, 2013.

The LNG Plant site's atmospheric air quality is monitored at four on-site locations each quarter. All of these locations remain well below the Project's emissions criteria. With the introduction of gas for commissioning in September, additional ambient monitoring was undertaken during the hydrocarbon flaring for sulfur dioxide and nitrogen dioxide. All results were well below World Health Organization emissions criteria.

9.2 Noise and vibration

Noise monitoring criteria specified in the Project Environment Permit are applicable to permanent facilities and not temporary construction facilities. However, as part of general environmental management, Project contractors continue to monitor noise at numerous worksites. For example, at the HGCP site, boundary noise monitoring conducted during monthly surveys showed construction noise levels complied with Project requirements at sensitive receptors.

During the start of commissioning flaring on September 9, noise was monitored twice daily at the LNG Plant site until the end of September. Noise monitoring results were all below Project Environment Permit criteria. Monitoring continues at the LNG Plant site.

Overall, no unresolved noise grievances were recorded at any worksite by the end of the quarter.

9.3 Waste management

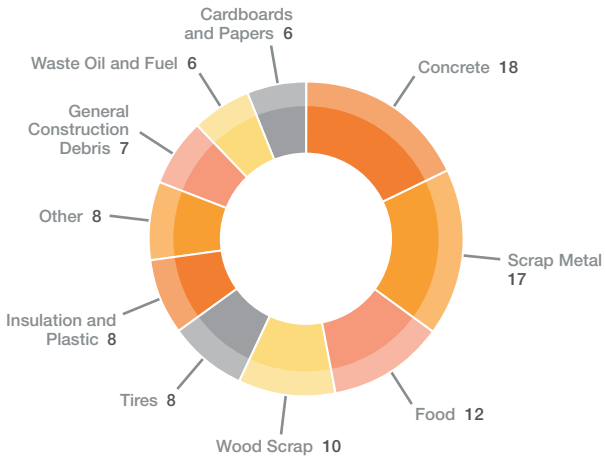
The Project has two operational landfills and multiple recycling programs in place to manage waste across all worksites. Disposal by waste type, volume and disposal method is tracked monthly and collated to monitor trends both quarterly and annually.

During this quarter, the predominant wastes generated were concrete waste and scrap metal as illustrated in Figure 9.2. Solid waste disposal methods used by the Project are shown in Figure 9.3, which reflects the current phase of construction in which waste is being moved from storage areas to Project facilities for recycling or disposal.

The Hides Waste Management Facility is increasingly taking waste for disposal from across Project worksites. As some sites prepare for demobilization, waste that was previously stored is being transported for disposal at the Hides Facility. For example, more than 50 tonnes of waste and over 20 tonnes of ash were moved from the Komo Airfield to the Hides Waste Management Facility for disposal this quarter. The Onshore Pipeline contractor also began transferring stored waste to the Hides Facility, with 15 container loads of assorted waste shipped from Gobe in August.

Figure 9.2

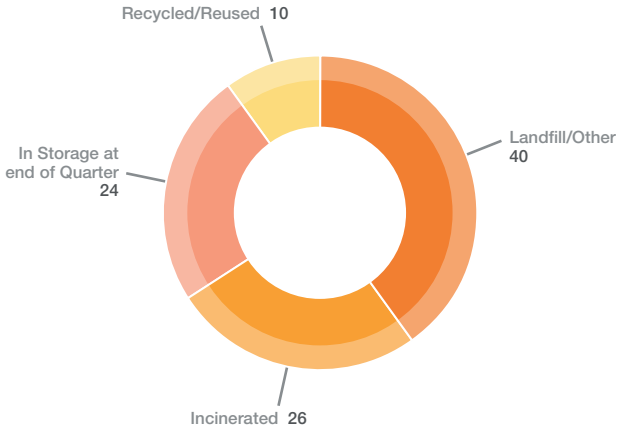
Percentage of solid waste during the third quarter by type



NOTE: Waste types with values of 2% and under have been combined in the category of 'Other'.

Figure 9.3

Percentage of waste during the third quarter by disposal method



During this quarter, the Onshore Pipeline contractor conducted an inventory of waste quantities across camps and waste management areas. The inventory recorded current waste volumes and identified disposal options. Temporary waste accumulation areas were operating at Awatangi Quarry Camp 7 and the Wellpad A Camp prior to the waste being transported to the Hides Facility for disposal. The demobilization of waste management facilities and sewage treatment systems at Tamadigi Camp 4 was completed. All remaining waste was sorted and transferred to the waste management facility at Moro Camp 5. The sewage treatment systems and incinerator from the demobilized camp were decommissioned and transferred to Kopi where parts will be recycled to support facilities at operational camps.

Through use of the patented Ecoflex system, the Komo Airfield contractor continues to reuse discarded tires from onshore pipeline activities in land stabilization and reinstatement works. During this quarter, over 1,500 truck tires were recycled and reused in reinstatement works.

Loading waste tires from onshore pipeline activities for reuse in Komo Airfield reinstatement activities

During this quarter, oil was also recycled, with four container loads and two tank containers of used oil transferred from Moro Camp 5 for recycling through approved third party recycling facilities. The Hides Gas Conditioning Plant and Hides Wellpads contractor commenced transporting waste oil to a third party recycling facility for reuse. By the end of the quarter, over 26,000 litres of waste oil was sent for recycling.

Additionally, scrap metal, aluminum and metal cans were sent from Moro Camp 5 to Port Moresby for recycling. In Komo, approved recycling suppliers were used to recycle 7,500 crushed bitumen drums, over 33,000 litres of waste oil, and a container load of scrap metal.

Waste timber and metal from the HGCP site is being put to use in local communities with support from the Juni Construction Training Facility, which is using it to build school donations of desks, tables and chairs. Community groups are also using this material in the maintenance of houses, churches and community facilities.

Juni Construction Training Facility trainees build desks to donate to local primary schools

At the LNG Plant site, an external consultant was contracted to conduct refresher training for landfill operators and site environmental staff. The training included topics on landfill fire equipment and prevention, landfill capping and operations efficiency.

The leachate from Cell A of the LNG Plant site landfill was reused by re-circulating the water within the same cell for dust control. This method of recycling negated the need to use other water sources.

9.3.1 Wastewater

A specialist wastewater process engineer, appointed during the second quarter 2013, is helping to improve the Project's wastewater treatment plant performance. For example, all wastewater treatment plants at the HGCP site maintained ideal operating conditions this quarter. There was one exception, which was quickly addressed by upgrading process and operational methods. At the end of the quarter, this plant also met expected operating conditions.

Continuous monitoring of wastewater treatment plants along the onshore pipeline is enabling active management of the treatment systems. For example, elevated chemical oxygen demand levels were detected in some areas during this quarter. Upon investigation this was found to be due to a change in the washing detergent used in camp laundries. The detergent was replaced and chemical oxygen demand levels returned to normal. The Onshore Pipeline contractor uses the expertise of the HGCP specialist wastewater engineer when required.

While the Permanent Facilities Compound is under construction, the LNG Plant site is receiving wastewater for treatment from the Compound worksite. The additional wastewater is well within the capacity of the LNG Plant site wastewater treatment plant, which continues to perform in accordance with Project specifications.

9.4 Hazardous materials

The Project avoids the use of hazardous materials wherever possible. In particular, materials that are subject to international bans or phase-outs are avoided and reported if found on any Project site.

During this quarter, no hazardous materials were reported on Project worksites.

9.5 Spill prevention and response

As the Project moved into more challenging terrain this quarter, the number of spills related to equipment increased, however the volume of spills remained low with the average spill being less than five litres.

A cluster of small spills occurred at the HGCP site early in the quarter, which prompted a spill response stand-down. A spill assessment was also conducted to determine the causes of spills on this site. The assessment found the most frequent spill events were associated with hydraulics and the transfer of fluids from transport containers to site locations.

The Hides Gas Conditioning Plant and Hides Wellpads contractor established a Spill Patrol team to monitor and provide spill prevention and response for minor equipment and plant that use hydrocarbons or chemicals. Training was also conducted on safe handling methods for hydrocarbons and chemicals.

At the LNG Plant site, the fifth oil spill preparedness audit of all subcontractors was undertaken. In addition, an external specialist conducted training in on-site chemical spill management.

9.6 Dredging and offshore trenching

No dredging or trenching occurred during this quarter, as all offshore operations were completed in the first quarter 2013.

10 BIODIVERSITY

All Project activities are governed by management plans that encompass biodiversity-related commitments. These plans are intended to ensure the protection of Papua New Guinea's unique biodiversity resources.

10.1 Ecological management

Biodiversity monitoring along the onshore pipeline ROW is showing that the contractor is working within approved construction boundaries. Trench monitoring training was conducted during the third quarter for 24 trenching and lowering workers. Worker education also continues on the Project's wildlife management policy (no hunting, no fishing, and no collection of flora or fauna).

At Komo Airfield, a Superb Fruit-Dove *Ptilinopus superbus* was rescued by a security guard and released. LNG Plant site workers have also observed an increase in wildlife making the site their home as the level of construction activity decreases.

Superb Fruit-Dove released back to the wild

Royal Spoonbill Platalea regia observed at the LNG Plant site

On separate occasions, one Short-beaked Dolphin *Delphinus delphis* and a pod of four Short-beaked Dolphins were sighted at the LNG jetty substation, while a further two Short-beaked Dolphins were observed at the LNG jetty area this quarter. Marine mammal observations are beginning to decline as worksites and site-specific monitoring teams demobilize.

Over 130 snakes were removed from the LNG Plant site during this quarter, with further information provided in *Case Study Three – Working with snakes*.

10.2 Quarantine management

Contractors are working diligently with the National Agriculture Quarantine and Inspection Authority to reduce the level of re-fumigations required on cargo entering Papua New Guinea. As part of this approach, the Authority is successfully implementing its new fumigation procedures for contractors who require re-fumigation on all their consignments. Under the new procedures, fumigation for these contractors is now occurring at the point of entry instead of the point of origin, which saves time and money. This effort is reducing re-fumigation levels by 75 percent.

So far this year, more than 1,700 Project consignments entered Papua New Guinea with 51 percent inspected and only eight percent requiring re-fumigation. The Project is continuing to provide the National Agriculture Quarantine and Inspection Authority with data to support improved risk analysis of imports and clearance processes.

10.3 Weed, plant pathogen and pest management

Weed management and control remains a regular topic for the Onshore Pipeline contractors' toolbox talks. The Hides Gas Conditioning Plant and Hides Wellpads contractor is also ensuring that workers who regularly travel up the Hides Wellpad Access Road remain vigilant of the need to avoid the spread of weeds.

Weed monitoring and control continues in Hides, while the LNG Plant and Marine Facilities contractor is manually controlling Priority 1 weeds such as Buffel Grass *Cenchrus ciliaris* by cutting.

During monitoring along onshore pipeline worksites this quarter, the presence of the Priority 1 weeds Bitter Vine *Mikania micrantha* and Elephant Grass *Cenchrus purpureum* were observed between Kilometre Points 21 and 23, while Singapore Daisy *Tithonia diversifolia* was commonly seen in the area.

The distribution of Priority 1 weeds Anglestem Willow Primrose *Ludwigia leptocarpa* and Siam Weed *Chromolaena odorata* were also noted to have expanded beyond baseline conditions. Corrective actions included active control of the identified weeds, wash-down of all equipment travelling from southern Project sites to Upstream areas, and increased weed monitoring.

The Hides Permanent Vehicle Washdown Facility is key to minimizing the spread of weeds by Project vehicles. During this quarter, the Facility treated an average of 60 vehicles a day including heavy haul equipment travelling from Komo Airfield to Hides. Plant material collected from vehicles treated at the facility is incinerated. The Komo Airfield Washdown Facility is also minimizing the spread of weeds, with 48 vehicles treated during this quarter.

Supersize washdown

A knockout drum on a heavy haul trailer, transported by five prime movers, is just one of the 18,157 washdowns provided by the Hides Permanent Vehicle Washdown Facility since it was commissioned in early 2012.

The drum and its associated transport was about 70 metres long and weighed about 250 tonnes. The drum, which is used to separate gas vapor from liquid, was being transported from the HGCP to Wellpad E in the remote Hides region. Both the drum and its transport vehicles were cleaned at the Washdown Facility to avoid the introduction of weeds into Hides Ridge. The size of the load meant it had to be manually washed using a water truck and high-pressure hoses. In anticipation of the size of the drum and its convoy of prime movers, the Washdown team proactively increased resources to ensure a quick and efficient washdown of all vehicles.

While this is the largest transport load washed to date, the Hides Permanent Vehicle Washdown Facility is well equipped to effectively clean transport of all sizes as part of the Project's commitment to protecting the Hides Ridge region against the introduction of weeds.

The knockout drum arriving at the Hides Permanent Vehicle Washdown Facility

10.4 Induced access

The Onshore Pipeline contractor completed construction of a 4.7-kilometre extension to Angore Road to access the proposed Angore Wellpads A and B. Angore Road is an existing public road, so the Project does not manage access to it. However, the newly constructed extension will be a private Project-controlled road. Security checkpoints are in place at the junction between the new extension road and also at Kilometre Point 24 to control vehicle access to Angore Wellpads A and B and to the ROW between Tagari and Benaria rivers. Only local residents and Project-approved vehicles are allowed beyond these checkpoints. Security checkpoints are being maintained at the Kikori River Bridge, Mubi River Bridge and Homa Ridge Access Road. The Hides Gas Conditioning Plant and Hides Wellpads contractor controls access to the Hides Wellpad Access Road through worker inductions and site identification cards.

In addition to the Angore Road extension, a short access road was constructed this quarter from Angore Wellpad B to Kilometre Point 12 on the onshore pipeline ROW. Temporary bridges were installed to provide access across the Dagia and Benaria rivers during the quarter.

10.5 Reinstatement

At the LNG Plant site, reinstatement plans were prepared for two sediment ponds and for the temporary construction yard this quarter. This follows joint site inspections conducted in the second quarter 2013 with Project personnel and the LNG Plant and Marine Facilities contractor.

Final reinstatement activities along the onshore pipeline route progressed, with several work fronts opened and critical reinstatement completed from Omati to Kilometre Point 245. Reinstatement was also completed in steep locations along the pipeline ROW, including challenging sections of the Homa Ridge, which required teleferic pipeline installation (a technique enabling pipes to be carried uphill on a metal cable high above the ground). Reinstatement continues along the remaining sections of the pipeline, with the Project and Onshore Pipeline contractor conducting ongoing joint assessments of reinstatement and cleanup works.

At Komo Airfield, reinstatement was completed on 57 hectares of land, which included the area north of the taxiway. Reinstatement was also completed within the perimeter fence, with spreading of Japanese Millet *Echinochloa* spp. and Carpet Grass *Axonopus compressus* seeds as well as fertilizer near the runway. Reinstatement works at the Tamalia River Borrow Pit were completed following planting of some 14,200 trees.

A recently reinstated area at the Komo Airfield

10.6 Biodiversity Strategy

Implementation of the Project's Biodiversity Strategy is progressing, along with early implementation of the biodiversity offset program, which is documented in the Biodiversity Offset Delivery Plan. With regard to the biodiversity offset program, the Project is engaging with potential non-government organization partners about protected areas in the Kikori River Basin. During this quarter, the biodiversity offset program's Enhancing Conservation Capacity component was advanced, with the University of Papua New Guinea recruiting lecturers and support staff for this program.

The Enhancing Conservation Capacity program is based on an agreement announced between the Project and the Mama Graun Conservation Trust Fund in April 2013. It has three key components: a conservation management course, scholarships, and work placements. In September, the University of Papua New Guinea announced it would offer a Diploma in Conservation Management as part of the program.

Engagement continues with the Lake Kutubu Wildlife Management Area Committee in relation to the Project's proposed Lake Kutubu Wildlife Management Area Enhancement Program. The biodiversity monitoring program has also progressed, with elements such as the programmed monitoring activity of remote sensing underway.

CS

CASE STUDY THRE
WORKING WITH SNAKES

Snakes present a unique challenge on construction worksites with Project workers encountering them almost daily.

Papua New Guinea is home to a variety of snakes, with many known to be in the vicinity of the LNG Plant site. The most venomous are the Papuan Taipan *Oxyuranus scutellatus canni*, Papuan Black Snake *Pseudechis papuanus*, Smooth Scaled Death Adder *Acanthophis laevis*, and the rare New Guinea Brown Snake *Pseudonaja textilis*. These snakes, particularly the Papuan Taipan, which is the most commonly encountered species, often present a challenge to Project teams when they arrive at worksites. One way the Project addresses this situation is through the LNG Plant site's Vector Surveillance and Control team, whose job is to manage the snake population as well as train local team members on snake handling and awareness.

As part of its role, the Vector Surveillance and Control team works closely with non-Project wildlife experts such as David Williams, Mark O'Shea and Jim Buckley.

The Vector Surveillance and Control team with snake specialists at the LNG Plant site

From left to right: Owen Pavia, Maraga Lohia, Mark O'Shea, David Williams, Jim Buckley, Charlie Nou, Ben Bande and Julious Jacobs

David Williams leads a team based at the University of Papua New Guinea that is conducting research to find new and affordable snake anti-venoms for Papua New Guineans.

"The LNG Plant site provides a good source of venomous snakes for our research," David said. "They have a large number of snakes, including the only large population of Papuan Black Snakes known to occur in Central Province."

During the third quarter, the LNG Plant site Vector Surveillance and Control team relocated over 130 snakes from Project sites. Of the snakes removed, 16 were venomous and some of these were donated to the University of Papua New Guinea to help with their research work.

The risk of snakebite is high in Papua New Guinea, with more people dying from snakebite in some parts of the country than from malaria, tuberculosis or HIV/Acquired Immune Deficiency Syndrome (AIDS).

David, Mark and the LNG Plant site Vector Surveillance and Control team are keen to raise awareness and request people do not try to harm or kill the snakes.

"If there were no snakes, the area would be overwhelmed with rodents and people would have no food in their garden," David said. "Snakes control these pests, which in turn keeps rodent disease-related problems at bay."

Through toolbox talks and other Project communications, workers are advised that if they see a snake to stay away from it and contact the Vector Surveillance and Control team.

"Papua New Guinea has one of the highest snake bite rates anywhere in the world, and it mainly is because locals don't wear shoes when walking in tall grass," David said. "The majority of snake bites are preventable by wearing gumboots. Even wearing them only when working in the garden would prevent 80 percent of bites in communities."

What to do when encountering a snake

If you do encounter a snake, there are three things you should do:

- Stand still and let it pass by. A snake typically will not attack or bite a person unless it feels threatened.
- If bitten, the patient's reaction is important in limiting the severity of the effects. The key is to stay calm, stay still and apply a pressure bandage to the affected area.
- It can be helpful if you can describe the snake that inflicted a bite wound. This may help to quickly identify the appropriate form of treatment.

Papuan Taipan

Papuan Black Snake

Smooth Scaled Death Adder

New Guinea Brown Snake

11 RESOURCE MANAGEMENT

The Project aims to sustainably manage natural resources such as quarry materials, timber, water and soils in recognition of their social, economic and cultural value to the people of Papua New Guinea.

11.1 Water management

11.1.1 Usage

Water is needed for domestic use in Project worker camps and for construction-related activities such as dust suppression and vehicle wash-downs. During this quarter, approximately 185,435 kilolitres of freshwater was extracted across Project worksites from ground and surface water sources. Another 636,357 kilolitres of seawater was extracted at the LNG Plant site to supply the desalination plant, which generates freshwater for the LNG Plant.

The Project is maintaining water extraction volumes within permitted limits. No additional water extraction permits were obtained during this quarter.

Figure 11.1 illustrates the volume of water from each extraction source, while Figure 11.2 shows water use by type.

11.1.2 Quality

Across all Project sites, water quality monitoring continues on ground, sea and surface waters to detect potential changes that may result in an environmental impact.

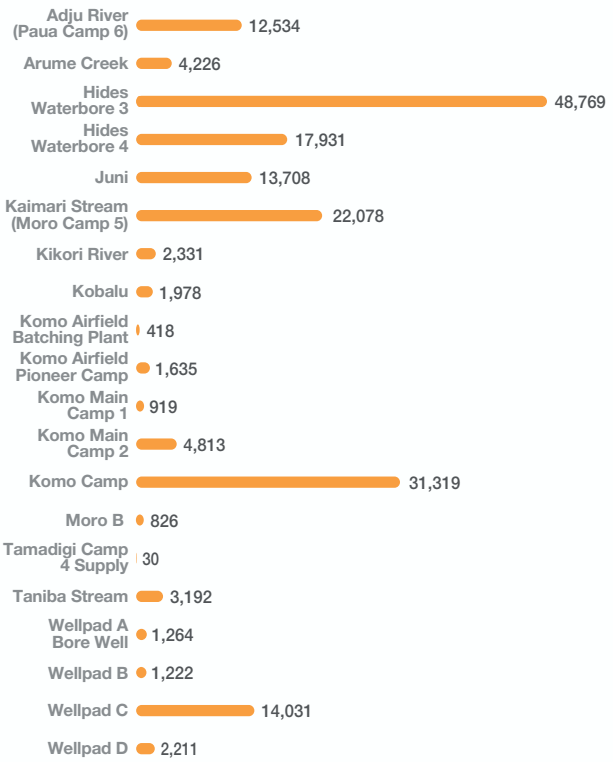
Surface water monitoring occurred at the Maruba and Agogo rivers in the Homa-Paua area where onshore pipeline work is progressing. Temporary turbidity was observed during construction activities but was limited to a mixing zone. Waters returned to baseline levels once river crossings were completed. The Onshore Pipeline contractor is using booms and rock filters prior to trenching to minimize the impact on waterways. Turbidity levels were also monitored during horizontal directional drilling activities, particularly in water bodies that drain into Lake Kutubu and Tagari River, to detect any increase in downstream turbidity that may indicate lost drilling mud. Two drilling mud release points were noted during the horizontal directional drilling of the onshore pipeline at the Tagari River crossing. However, the releases were contained by the Onshore Pipeline contractor, thereby ensuring that no drilling mud entered Tagari River. At the HGCP, 15 sampling sites were monitored this quarter and the contractor began installing subsurface monitoring bores around the site.

At the LNG Plant site, stormwater and surface water sampling is conducted at designated discharge points by both contractor and Project teams to ensure water permit discharge conditions are met. During the quarter, there were no prevailing water quality issues observed from construction activity.

Hydrotesting is complete for over 237 kilometres of the 293-kilometre main onshore pipeline. As in previous hydrotests, no chemical dosing was required and dewatering was completed without erosion concerns. In accordance with the Project's Hydrotesting Management Plan and Environment Permit, water samples were sent to a laboratory in Port Moresby for testing.

Figure 11.1

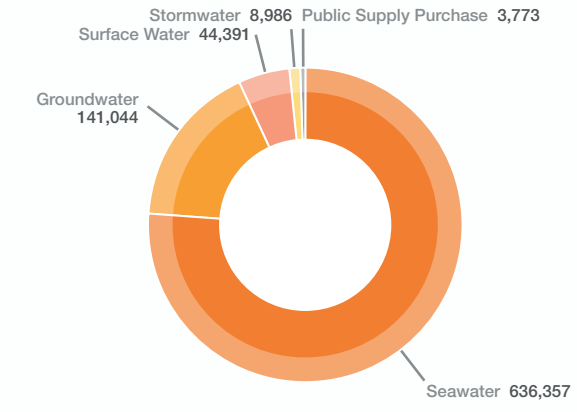
Volume (kilolitres) of water used during the third quarter by extraction source



NOTE: Seawater, stormwater and purchased water are not included in this Figure. Water use for the LNG Plant site is also not shown in this Figure as the site's water usage is from desalinated seawater.

Figure 11.2

Volume (kilolitres) of water used during the third quarter by type



In August, 16 hydrotest discharges were conducted at the HGCP site to assess numerous utilities and lines. All hydrotest results complied with the Project's discharge standards.

11.2 Raw materials

The Project uses existing (either operating or previously abandoned) third party quarries, where possible, to source quarry materials for construction activities in preference to opening new quarries. Project-approved local suppliers are used to source timber. Other reputable external timber sources are used when required.

During the quarter, a pre-construction survey and cultural heritage assessment was conducted of the pre-existing Halimbu Quarry to determine whether it was suitable for Project use. The Quarry met all requirements and is now being used by the Project.

All material for the Project was sourced from existing quarries, with no new quarries opened this quarter. The volume of quarry material extracted this quarter is presented in Table 11.1.

Table 11.1 – Quarries in use and extracted volumes during the third quarter

Area/quarry name	Volumes extracted (cubic metres)
LNG Plant site	57,817
Hides	33,562
Komo	6,856
Onshore Pipeline	41,850

Project-approved sources provided less than 100 cubic metres of timber during this quarter.

11.3 Erosion and sediment control

As many Project sites near completion, temporary erosion and sediment control measures are being replaced by permanent measures as part of reinstatement works, as discussed in *Section 10.5 Reinstatement*. The Project is still monitoring temporary measures in place, with a significant effort conducted this quarter to maintain erosion and sediment control devices. For example, at the HGCP site, priority works included the installation and maintenance of silt fencing, weeding, drain clearing and silt removal on temporary structures.

The Onshore Pipeline contractor has four dedicated erosion and sediment control crews deployed across worksites based at Kopi, Gobe, Moro and Paua. These crews inspect both permanent and temporary control measures and conduct maintenance to ensure control measures remain effective. Additional inspections were conducted on the extensive erosion and sediment control measures installed in steep areas such as the Homa Ridge this quarter, with all found to be working effectively.

However, the inspections did find evidence of tampering at some of the control measures. To minimize the risk of this occurring again, the Project is educating communities and workers about the importance and function of erosion and sediment control in these areas.

Extensive erosion control measures applied to steep slopes

Extensive permanent sedimentation and erosion control measures are in place at the LNG Plant site. These include: the trimming of slopes to minimize erosion; drainage systems with inbuilt silt sumps where sediment is collected from run-off during rain events and later removed; and silt fences, silt nets and traps built around any disturbed areas. Reinstatement of vegetation over topsoil is also providing biological filters to minimize erosion, while sedimentation ponds are used to collect run-off across the site. Ongoing monitoring of these measures will continue throughout the production phase.

11.4 Acid sulfate soils

During this quarter, there were no construction activities requiring the monitoring of acid sulfate soils.

12 CULTURAL HERITAGE

Pre-clearance surveys, implementation of the Chance Finds Protocol and the protection of known cultural heritage sites are key activities at this stage of Project construction to help preserve Papua New Guinea's rich cultural heritage resources.

During this quarter, the Onshore Pipeline contractor focused cultural heritage inspection and monitoring on earthworks activities including: clearing and grading; trenching; blasting and quarry abstraction.

Cultural heritage site assessments were also undertaken for sites identified during pre-construction surveys to verify whether site-specific mitigation measures were being implemented.

Toolbox talks continue to be held across all worksites to raise awareness about the Chance Finds Protocol and identified cultural heritage sensitivities. These are supplemented by specialized training on the avoidance and protection of cultural heritage sites.

12.1 Pre-construction surveys

Surveys are conducted prior to commencement of construction activities to identify potential cultural heritage sites that may require preservation, or mitigation measures developed in partnership with local landowners.

During this quarter, a cultural heritage survey was undertaken for the Halimbu Quarry adjacent to Tari-Hides road, which is proposed for use by the Onshore Pipeline contractor. Seven oral tradition sites were identified during interviews conducted with landowners as part of the survey.

A men's house site ('*balamanda*') is the main cultural heritage site, with five pig sacrificial areas ('*damaandas*') related to this site. Another is a bachelor cult site ('*ibagiyaanda*') represented by a sacred tree known locally as '*melela takepu*'. All of these areas are located within the construction footprint and were partially disturbed by previous non-Project-related quarry exploitation.

The Project is still seeking landowner consent regarding the need to disturb some land at the '*ibagiyaanda*' site for pipeline construction activities.

Interviews and ground-truthing were held during a pre-construction survey for the proposed pipeline re-alignment from Kilometre Point 80 to 90. No culturally significant items were identified, so landowners gave consent to the Project for ground disturbance.

12.2 Salvage excavations

No salvage excavations were undertaken during this quarter.

12.3 Incidents of disturbance to known cultural heritage sites

No incidents of Project-related disturbance to known cultural heritage sites were recorded this quarter.

A cultural heritage site at Pagu Quarry was demarcated and monitored to prevent disturbance. The site comprises a rock shelter and ossuary, which are of high significance to the Kapa clan. Smoke markings on the roof indicate this site's continued use by the clan.

During this quarter, landowner consent was given to the Project for development of Pagu Quarry.

Demarcated rock shelter and ossuary at Pagu Quarry

12.4 Chance finds

Before ground disturbance activities commence, the Project conducts inspections to identify the presence of chance finds.

Twenty chance finds of low to medium significance were found during the quarter. Eight of these were discovered in August on the onshore pipeline ROW during monitoring of clearing and grading activities between Kilometre Points 14 and 19, while 12 finds were made in July between Kilometre Points 6 and 8. No chance finds were recorded in September.

All chance finds recorded this quarter are shown in Table 12.1.

Table 12.1 – Chance finds during the third quarter

Location of find	Type of find
Onshore Pipeline	Burial monument.
	Burial site (7).
	'*Tegehama*' ritual site.
	'*Toro-warijakala*' sacred site/spirit route.
	'*Hegene-ipa'* economic/settlement site.
	'*Nogoanad'*/'*nogo-palana*' pig breeding site.
	'*Iba-toro-anda*' spirit sacrificial swamp.
	'*Warupi*' sacred lake.
	'*Damaanda*' pig sacrificial site (2).
	'Ibagiyaanda' bachelor cult site.
	'*Take-hane-malianda*' traditional dance ground.
	'*Nguali*' spirit well.
	Spirit track and sacrificial spot.

During the second quarter 2013, it was reported that a stone mortar, a stone club and two spiritual stones were recovered from the Tagari Access Road (Henopi 2) site. These were, in fact, chance finds from other areas and no artifacts were recovered from the Henopi 2 site.

13 STAKEHOLDER ENGAGEMENT

The Project continues to develop its relationships with Papua New Guinean citizens and communities through proactive engagements that aim to build and maintain trust, collaboration and mutual understanding.

13.1 Government

Targeted engagement activities keep all levels of government, community members and other stakeholders informed of Project activities as they progress.

13.1.1 People processes

The Papua New Guinean Government is maintaining rapid processing of work permits and visas for non-national Project workers. The Immigration and Citizenship Services Authority, in collaboration with the Papua New Guinean Department of Labour and Industrial Relations, is also rapidly processing Restricted Employment Facility visas for the increased number of specialized workers required for the current stage of Project work. These workers have technical skills and qualifications that are unable to be found in-country. The Restricted Employment Facility visa enables them to work in Papua New Guinea for up to 30 days.

13.1.2 Materials and tax

Papua New Guinea's Customs Service is conducting ongoing audits to confirm that goods imported for use by the Project are being consumed within the Project. To date, the Customs Service has found the Project is complying with import duty requirements. The Customs Services' audit process is not causing any delay to the clearance of Project cargo into Papua New Guinea.

13.1.3 Infrastructure and Government support

The Project provided Papua New Guinea's Department of Works with engineering and supervisory support for emergency repairs to the Highlands Highway between Poroma and Magarima this quarter. The repairs were conducted to improve road conditions after heavy rainfall during the quarter caused deterioration of this section of the Highway. With the Project supplying on-site supervision of works contractors, the repairs were completed and the Highway was re-opened within two days.

In the Hela Province, the Project provided engineering design and execution planning to the Hela Provincial Government for their planned upgrade of the road between the Komo Airfield and Hides.

13.1.4 Advocacy

The newly appointed Papua New Guinean Ambassador to the US, Rupa Mulina, was part of a group of foreign service officers from the Department of Foreign Affairs who visited the LNG Plant site during this quarter.

The group was among more than 160 dignitaries from government, foreign missions, the media and international donor agencies who attended 15 advocacy workshops and LNG Plant site visits in the quarter. The workshops provided attendees with updates about the Project's construction progress, as well as safety, environment, security and national content initiatives.

Papua New Guinean Ambassador to the US, Rupa Mulina, and foreign service officers from the Department of Foreign Affairs during a visit to the LNG Plant site

Minister for Environment and Conservation, John Pundari, with departmental representatives at the LNG Plant site

13.1.5 Benefits assurance delivery

The Papua New Guinean Government continues its presence in the field, interacting with landowners on Government-related issues. As part of their role, the Papua New Guinean Department of Petroleum and Energy is conducting awareness sessions and identifying beneficiary clans to determine the appropriate distribution of Project royalties and benefits.

These Government interactions are helping the Project to minimize potential work stoppages due to landowner disputes related to outstanding Government commitments.

13.2 Communities

The Project is maintaining strong community relationships through appropriate levels of engagement.

13.2.1 Engagement activities

Since the start of construction, both Project and contractor teams have worked with local communities and key stakeholder organizations to understand and help preserve Papua New Guinea's unique heritage. For example, many cultural activities were organized to celebrate the nation's independence, as shown in *Case Study Four – Celebrating Papua New Guinea*.

More than 500 individuals participated in over 200 formal community engagements conducted in 55 communities during this quarter. For the Project-to-date, over 30,000 individuals have been reached through more than 1,400 formal engagements. In addition, over 400 informal engagements were conducted in 41 communities, bringing the total number of informal engagements to more than 2,000 for the Project-to-date. Health and safety were the focus of engagement activities during this quarter.

Hides and Komo

Pedestrian and traffic safety were the focus of community engagements in Hides and Komo during heavy cargo transportation from the Komo Airfield to the HGCP this quarter. The Socioeconomic team also provided local communities with information about drilling activities on Wellpad D.

Drilling awareness session at Kulu Village

During the quarter, Papua New Guinea's national rugby league team, the Kumuls, helped the Project deliver messages about safety-focused behaviors communities could expect from Project workers, and how communities could help support Project workers to work safely. Kumuls jerseys were given to community members during these engagement activities.

A member of the Kumuls rugby league team helps deliver Project community safety messages

Pipeline (north and south)

As the Project progresses reinstatement works along the pipeline ROW, community messages focus on ensuring pedestrian safety along the pipeline route. The Socioeconomic team is also raising community awareness with regard to safe behaviors during pipeline commissioning activities.

LNG plant site

In preparation for increased commissioning activities, the Project is conducting community awareness sessions that cover safe commissioning operations, including flaring, LNG Plant site lighting schedules and noise. During this quarter, more than 280 students and teachers from elementary and primary schools in the LNG Plant site villages of Papa and Lea Lea attended commissioning safety education sessions.

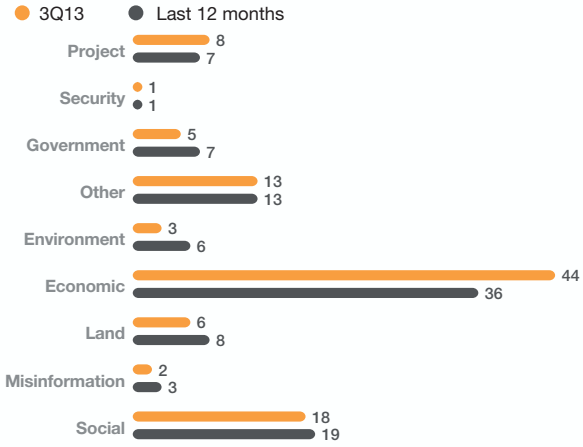
A flare operations awareness session at Lea Lea Primary School

Issues identification

With the Project workforce beginning to demobilize, there has been an increase in economic issues regarding employment, as shown in Figure 13.1.

Figure 13.1

Percentage of issues received by issue category



The Project continues to support workers during the demobilization process, including providing training designed to help workers secure long-term employment opportunities outside of the Project. Other economic issues raised during the quarter included increased requests for community engagements, particularly in areas where not all community members could be present at one time, and concerns about other forms of financial assistance not related to compensation or resettlement.

13.2.2 Media

During this quarter, senior Project representatives presented information about the Project's health programs to attendees of the Papua New Guinean Chamber of Mines and Petroleum's Occupational Health and Safety Conference in Port Moresby. The Project also hosted a media workshop to provide Papua New Guinean journalists with updates about the progress of construction activities and environmental initiatives.

In his monthly newspaper column, Peter Graham, Managing Director of Esso Highlands Limited spoke about the Enterprise Centre and the Project's commitment to supporting the development of small to medium enterprises, as well as the Project's commitment to education programs for Papua New Guinean citizens. Peter Graham's column is published in English in the *Post Courier* and *The National*, and in Tok Pisin in the *Wantok Nius*. Education initiatives throughout the Project area were also highlighted in the latest edition of the *PNG LNG Toktok*, a four-page supplement inserted into local newspapers as well as distributed to stakeholders.

Among key media announcements during the quarter was the Project's sponsorship of the Kumuls rugby league team.

Additionally, the fourteenth PNG LNG Quarterly Environmental and Social Report covering the second quarter 2013 was published on the Project website, with hard copy versions made available to many Project stakeholders.

Project sponsors the Kumuls

The Project has announced a commitment to sponsor Papua New Guinea's national rugby league team, the Kumuls, as they prepare for the Rugby League World Cup campaigns in late 2013 and 2017.

The announcement was made in August, with the Project recognizing the importance of rugby league to the nation.

"We understand that Papua New Guinea is the only country in the world with rugby league as the national sport," said Esso Highlands Limited Managing Director, Peter Graham.

"The Project recognizes the potential for the Kumuls, as ambassadors and role models, to have a positive influence on Papua New Guinean youth in particular, and we are pleased to contribute to the progress of the Kumuls. We will be cheering them on to victory."

Kumuls' Director Mal Meninga said the team's involvement with the PNG LNG Project was a natural fit.

"The PNG LNG Project is a leader in its field, which is something the Kumuls also strive to be. We are delighted to welcome them on board as a major sponsor and have them along with us on our journey to the Rugby League World Cup," he said.

Peter Graham, Managing Director, Esso Highlands Limited (center) holding a rugby league ball, with Hon. Justin Tkatchencko MP, Papua New Guinea Minister for Sports

Also pictured (from left to right): Sandis Tsaka, Deputy Chairman, Papua New Guinea Rugby Football League; Kumuls players Enoch Maki, Richard Kambo and Sebastian Pandia; Matthew Natusch, Kumul General Manager; Mal Meninga, Kumul Coaching Director; and Adrian Lam, Kumul Coach

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Papua New Guinea's national newspapers the *Post Courier*, *The National*, and the *Sunday Chronicle* published the Report's Executive Summary in English, while the *Wantok Nius* provided a version in Tok Pisin.

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CASE STUDY FOUR
CELEBRATING PAPUA NEW GUINEA

Traditional songs and games were among many cultural activities organized to celebrate 38 years of Papua New Guinea's independence in September.

The Project commemorated the nation's independence with a day of festivities including a lunch for workers, a parade with traditional dancing and a visit by Papua New Guinea's rugby league team, the Kumuls.

For the third consecutive year, the theme was 'Adopt an Expatriate' in which expatriate employees were dressed in the traditional costume of their Papua New Guinean sponsor.

Expatriates Claire Joseph and Carmen Dunkley with their sponsor Karlyne Pukaikia in East New Britain Province traditional 'bilas' (costumes)

Papua New Guinea celebrates its independence on September 16 each year. The country established its sovereignty in 1975, after being ruled by three external nations from 1884.

Since the start of construction, Project and contractor teams have worked with local communities and key stakeholder organizations to help preserve Papua New Guinea's heritage. This includes campaigns intended to raise awareness about the nation's cultural history with schoolchildren.

For example, in 2011 the Project launched the *Kastom Stori Sene Gori* (traditional stories) competition, which attracted over 3,700 pictures and stories from 26 schools in the Project impact area. The competition encouraged inter-generational storytelling about the nation's history. The seven schools with the highest number of competition entries each received school supplies of their choice to the value of 10,000 Kina (US$4,160).

The Project continues to work closely with communities to preserve Papua New Guinea's unique culture. For example, more than 1,400 formal engagements involving over 30,000 participants have been held throughout the Project area to date.

The meaning of a costume

Among the many national costumes proudly displayed on Independence Day was the traditional dress of the Motuans from the Central Province.

The costumes consist of '*laplaps*' bearing the designs of traditional tattoos from the Kwaradubuna clan in Hanuabada Village. Single tattoos are put on the back and front of the knee. The long tattoo is usually put on the waist. These were originally tattooed onto the women whose husbands had travelled away on the '*lakatois*' (large canoes) for the Hiri trade.

The accompanying headdress is made from parrot feathers, while the Kina shell (as worn by Kim Hahn, pictured center) was used to trade for food and other useful items. It was considered to be the main monetary unit of Papuan trade and is still used in bride price ceremonies.

The lime pot (held by Jessica Hilbert pictured far left) is from the Trobriand Islands in the Milne Bay Province. Lime pots are made from a gourd-producing plant and include a stopper made of rolled up *Pandanus* leaf. The pots are decorated with traditional designs before being filled with lime.

Production organization team members wearing traditional Motuan dress to celebrate Independence Day

From left to right: Jessica Hilbert, Planning Advisor; Helen Kassman-Inawasa, Technical Assistant; Kim Hahn, Building the Producing Organization (BTPO) Operations Superintendent; Nonnie Eri, Technical Assistant and Flora Suve, Administrative Assistant

CS

CASE STUDY FOUR
CELEBRATING PAPUA NEW GUINEA

Independence Day celebrations were embraced across Project teams.

Workers participating in the Independence Day parade

Expatriate Claire Winton Burn with her sponsor Jane Lamboku in West New Britain dress

Helen Kassman-Inawasa, Fernando Masanque and Mea Vai wearing traditional Motuan dress – the beads worn were used in cultural festivals

Peter Graham, Managing Director, Esso Highlands Limited with players from the Kumuls

Expatriate Laura Wegener wears traditional 'melpa bilas' from the Western Highlands Province. The costume took two hours to assemble and included a natural fiber grass skirt, kina shells, feathers and oil. Laura holds a traditional 'kundu' drum. Her sponsor is Mary Anda, pictured right

14 ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
EITI	Extractive Industries Transparency Initiative
ESMP	Environmental and Social Management Plan
HGCP	Hides Gas Conditioning Plant
HIV	Human Immunodeficiency Virus
IESC	Lender Group's Independent Environmental and Social Consultant
iHDSS	Integrated Health and Demographic Surveillance System
IMR	Papua New Guinea Institute of Medical Research
Lanco(s)	Landowner Company (Companies)
LNG	Liquefied Natural Gas
PNG	Papua New Guinea
PSI	Population Services International
ROW	Right of Way
SME	Small to Medium Enterprise
WASH	Water, Sanitation and Hygiene

A1 APPENDIX 1 – PROJECT CONTRACTORS AND WORK SCOPES

Table A1.1 – Summary of contractors and work scopes

Contract	Description of work scope
Upstream Infrastructure Clough and Curtain Brothers Joint Venture	• Infrastructure upgrades supporting main construction activities in the Gulf Province and Southern Highlands Province. • Camps for Esso Highlands Limited and to support construction activities. • Construction of a landfill site at Hides. • Bulk earthworks for the HGCP and Hides Wellpads.
LNG Plant Early Works Curtain Brothers Papua New Guinea Limited	• Upgrade of existing road from Motukea Island to LNG Plant site. • New Bypass Road (re-routing of existing public road, which transects with the LNG Plant site).
Telecommunications TransTel Engineering	• Installation of a telecommunications system to support construction and production.
Offshore Pipeline Saipem	• Construction and installation of the offshore pipeline from Omati River landfall to LNG Plant landfall site. • Pipeline tie-in at Omati River landfall and shore crossing at the LNG Plant landfall site. • Installation of near-shore Fiber Optic Cable in the Omati area.
Offshore Fiber Optic Cable Alcatel-Lucent Submarine Networks	• Installation of the offshore Fiber Optic Cable from the Omati delta to the LNG Plant landfall.
LNG Plant and Marine Facilities Chiyoda and JGC Joint Venture	• LNG facility engineering and construction, including LNG process trains, condensate storage tanks, LNG storage tanks, utilities, permanent accommodations, heliport, and telecommunications. • Marine facilities including the jetty and LNG/condensate export berths.
Hides Gas Conditioning Plant and Hides Wellpads CBI and Clough Joint Venture	• Engineering and construction of the HGCP processing facilities and associated wellpads, including permanent accommodation and maintenance facilities.
Onshore Pipeline SpieCapag	• Installation of the onshore gas and condensate pipelines, and associated valve and metering stations. • Installation of the pipelines for the Hides gathering system including flowlines, spineline, utility lines, and associated power and telecommunications cables.
Komo Airfield McConnell Dowell and Consolidated Contractor Group Joint Venture	• Airfield and supporting infrastructure.
Associated Gas Development Various	• Upgrades and modifications to Kutubu Central Processing Facility and Gobe Production Facility including gas dehydration, metering, and condensate handling.
Nabors Drilling International Limited	• Drill and complete 11 new wells.
Permanent Facilities Compound Leighton (PNG) Limited	• Construction of offices and associated service facilities.

Esso Highlands Limited acknowledges the aforementioned contractors for their respective contributions in developing this fifteenth PNG LNG Quarterly Environmental and Social Report.

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