

PNG LNG Quarterly  
Environmental and Social Report

Fourth Quarter

2014



**PNG LNG**

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



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Prepared by IDP Consulting Pty Ltd.

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## About This Report

This Papua New Guinea Liquefied Natural Gas (PNG LNG) Quarterly Environmental and Social Report – Fourth Quarter 2014 provides information about ExxonMobil PNG Limited’s safety, health, environment and social management progress during production.

It forms part of the PNG LNG Project’s commitment to ensuring the Government and citizens of Papua New Guinea, interested non-government organisations and other stakeholders are kept well informed of production activities.

This Report is available on the PNG LNG Project website, [www.pnglng.com](http://www.pnglng.com). Printed copies are also available.

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## EXECUTIVE SUMMARY



### STEADY STATE OPERATIONS ACHIEVED

**“To see a project of this magnitude come together and safely achieve steady state operations within a few short years and ahead of schedule is something for which ExxonMobil can be truly proud. Personally, I feel fortunate to have had the opportunity to work with the inspiring and talented group of people who made this happen.”**

- Peter Graham, Managing Director,  
ExxonMobil PNG Limited

ExxonMobil PNG Limited (EMPNG) has safely achieved steady state operations with all facilities online, almost 4 million tonnes of LNG produced, and 55 LNG cargoes delivered by the end of the fourth quarter 2014.

EMPNG is a subsidiary of Exxon Mobil Corporation and is the operator of the Papua New Guinea Liquefied Natural Gas (PNG LNG) Project facilities on behalf of its co-venture partners: 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.

This PNG LNG Quarterly Environmental and Social Report provides information about the progress of production, as well as safety, health, security and environmental activities.

### Production

EMPNG production facilities, including the LNG Plant and the Hides Gas Conditioning Plant (HGCP), have achieved steady state operations. There was a significant increase in production this quarter and a record production week was achieved in December. By the end of 2014, 55 LNG cargoes were delivered with 25 cargoes loaded during this quarter alone. Celebrations were held at EMPNG worksites to commemorate the 50<sup>th</sup> cargo of LNG loaded in December.



*The 50<sup>th</sup> cargo of LNG being loaded at the LNG Plant Marine Terminal*

The first custom-built EMPNG LNG carrier, named *Papua*, also began sea and gas trials during this quarter. The ship, which was built in China, will arrive in Papua New Guinea in February 2015 to commence operations.

### Safety, health and security

EMPNG finished 2014 with a strong safety performance. By the end of December, all worksites achieved a combined 23 million work hours without a Lost Time Incident for the year. Since July 2013, more than 48 million work hours have been completed without a Lost Time Incident.

## 23 MILLION HOURS

worked in 2014 without a Lost Time Incident

Key safety activities conducted in the quarter included: a 'Finish Strong' year-end safety campaign that emphasised the need for workers to recognise and mitigate hazards; safety leadership training for 128 workers including managers and supervisors; and a Contractor Safety, Security, Health and Environment Leadership Workshop, which involved 75 attendees from over 15 companies that contract services to EMPNG.

EMPNG is implementing production workforce health programs, and fine-tuning contractor health services delivery, performance monitoring and reporting, across the three primary health management areas of: medical; public health; and industrial hygiene. This quarter, the Lender Group's Independent Environmental and Social Consultant reported that EMPNG's occupational health program was a "best practice" system.

World Acquired Immunodeficiency Syndrome (AIDS) Day was commemorated during the quarter with three days of activities to raise awareness about Human Immunodeficiency Virus (HIV) and AIDS. The activities, held from 29 November to World AIDS Day on 1 December, included health talks, a video night and a candlelight vigil in memory of people who had died from HIV and AIDS.



**Residents at Moro B Camp wearing red shirts in support of World AIDS Day**

An average of 3,000 training hours is being delivered each quarter as part of a comprehensive training and mentoring program to develop the skills of Papua New Guinean security personnel. The training emphasises workplace safety and adherence to the Voluntary Principles on Security and Human Rights. Security workers also continue to receive training in the Safety Champions initiative, with 449 workers trained to date.

## Environment

EMPNG aims to reduce the use of raw materials and continues to implement waste reuse initiatives at its facilities. Among its many reuse initiatives, the company is using processed drill cuttings as cover material at the Hides landfill. More than 1,500 cubic metres of treated drill cuttings were reused as landfill cover in the fourth quarter.

Over 100 tyres were donated to the PNG Ports Corporation Limited for reuse as wharf fenders during this quarter. Additionally, 19 cubic metres of lead-acid batteries that were previously stored in Kopeanda, along with 32,300 litres of waste drilling oil, were sent to approved recycling facilities in Lae.



**Waste reuse initiatives are being applied throughout EMPNG worksites, such as Hides Wellpad F**

Results from post-construction freshwater ecology monitoring indicate the river systems surrounding EMPNG facilities have recovered from any short-term impacts caused by construction. For example, the diversity of macro-invertebrates, which is an indicator of watercourse conditions, and levels of sedimentation in the Timalia River downstream of the HGCP, indicate these systems have recovered from construction activities.

Substantial flowering of *Nothofagus* sp. was discovered in an Upstream forest area this quarter, with seedlings found on the pipeline Right of Way (ROW) at Hides Ridge. Flowering of *Nothofagus* sp. is sporadic and unpredictable so this event was a positive ecological indicator, as the establishment of seedlings on the ROW was not expected to occur so soon after reinstatement.

To reinforce the PNG LNG Project's 'no spill' culture, 26 spill response drills were conducted across worksites during this quarter. They covered scenarios such as a condensate spill, chemical leak and diesel release. Some scenarios were enacted as desktop exercises, while others involved field-based discussions, full equipment deployment, and practical execution of spill response methods.

## Workforce development

At the end of December, the production workforce reached 2,178, of which 1,537 were Papua New Guineans.

Three engineers from the graduate training development program began their full-time roles at the LNG Plant in December. One of the participants is working as a Surveillance Engineer; another is a Machinery Engineer, and the third is an Integrity Engineer.

A newspaper advertising campaign was launched this quarter to recruit 30 candidates for the third intake of Operations and Maintenance trainees. Successful applicants will begin the training program in 2015. Like their predecessors, they will complete Basic Skills and Advanced Skills training, as well as on-the-job training where they will learn about personal and team safety procedures, how to work in a team environment, and working with complex equipment for the production of LNG. More than 95 percent of Operations and Maintenance trainees from the first intake have achieved Technician Level 1, while the second trainee intake has almost completed their Technician Level 1 training requirements.

EMPNG is delivering ongoing workforce training programs to build the skills and knowledge of Papua New Guinean workers. During the quarter, more than 23,000 hours of training were delivered to almost 1,800 EMPNG and contractor employees through 854 courses. Two thirds of these workers were Papua New Guineans.

Training courses delivered to EMPNG employees focused on the development of graduate engineers, Operations and Maintenance trainees, and technical training for production workers. Contractor-provided training courses are specific to their scope of work and this quarter included topics such as cultural awareness, driving safety, working at heights, hearing conservation and hazard identification.

## 23,000+ HOURS

of worker training provided

Work is progressing on the refurbishment of camp amenities to meet the needs of the production workforce. For example, a new potable water system was installed at the LNG Plant camp during this quarter. Work also began on refurbishing the LNG Plant camp kitchen. Newsletters were introduced to both camps to keep residents informed about camp updates and activities.

### Supporting Papua New Guinean businesses

Papua New Guinean businesses provide valuable services to EMPNG such as equipment hire and camp rental services. Landowner companies (Lancos) in particular provide services such as catering, security, light vehicle maintenance, heavy equipment rental, hire services and spare parts supply. In the fourth quarter, the company's total in-country spend with Lancos and non-Lanco services was more than 245 million Kina (US\$94.4 million), of which approximately 97 million Kina (US\$37.4 million) was spent on Lanco services.

To date, EMPNG's total in-country spend has reached more than 11.37 billion Kina (US\$4.38 billion), with 4.52 billion Kina (US\$1.74 billion) spent on Lanco services.

## 11.37+ BILLION KINA

spent in Papua New Guinea to date

The Enterprise Centre, which was established in 2010 to support the development of Papua New Guinean businesses, continues to build sustainable operations through contracts with EMPNG and external organisations. During the quarter, the Centre secured contracts from government agencies such as the Department of Defence, Department of Justice, and Department of Labour and Industrial Relations. The Centre also signed a contract with the United Nations Development Programme and renewed its contract with EMPNG for another three years to provide business assessment and support services to Papua New Guinean businesses.

Eighty-seven entrepreneurs sought assistance through the Centre this quarter. Since its establishment the Enterprise Centre has provided services to 17,291 Papua New Guinean entrepreneurs. More than 13,500 days of training have also been provided through the Centre to date, with 1,587 training days delivered during this quarter alone.

### Social development

Donations of food and gifts from EMPNG made Christmas Day brighter for 15 young patients and their guardians in the Kikori Rural Hospital children's ward. EMPNG workers delivered the gifts and shared a Christmas cake with the children, their parents, guardians and hospital staff to celebrate Christmas.

Twenty boxes of medical supplies were provided to nine health clinics in communities near EMPNG facilities during this quarter through a partnership between EMPNG, the Papua New Guinea Tribal Foundation and Project C.U.R.E. The medical kits each contained 5,000 Kina (US\$1,930) of basic medical supplies such as towels, wipes, bandages, saline water bottles, tongue depressors, skin dressing kits and adhesive bandages.

The Texas Children's Hospital's teaching physician delivered more than 104 lectures and 470 mentoring hours to 148 University of Papua New Guinea School of Medicine and Health Science students, as well as to physicians and nurses at the Port Moresby General Hospital. The Texas Children's Hospital team also provided training on severe acute malnutrition management for 53 health workers from 15 hospitals across the country.

In addition to their teaching commitments, the doctors are currently managing the care of more than 200 children with severe acute malnutrition.

In partnership with Buk Bilong Pikinini children's libraries, EMPNG provided books for a new library at Lake Kutubu Primary School in the Southern Highlands Province this quarter. The donation included eight boxes of assorted reading books and 50 books from the Toea children's adventure series.

Infrastructure work has been completed at Tugupawi Primary School with the re-opening of the school's fully refurbished recreation hall. Works progressed at Tari Secondary School; Dauli Teachers College; Idauwi, Mananda and Baguale primary schools; and Inu and Omati elementary schools.



**Graeme Hunt, Hides Operations Superintendent, EMPNG, handing over the fully refurbished recreation hall to Sister Jessie Joseph, Head Teacher of Tugupawi Primary School**

At Redscar High School, maintenance works were completed on classrooms, the library, the staff room and sporting facilities. A group of 120 Grade 10 students were the first to sit for their national examinations in the refurbished classrooms.

Eighty laptops previously used for EMPNG trainees were donated to three tertiary institutions this quarter. Female students from Don Bosco Technical College received 30 laptops for their night studies. This donation means the students have no need to venture out to the common computer laboratory at night.

Another 40 laptops were donated to the Papua New Guinea University of Technology's four engineering departments. The remaining ten laptops were given to the University of Papua New Guinea's School of Medicine and Health Sciences to be used as teaching resources.

A three-year, EMPNG funded, Barging Route Waterways Memorandum of Understanding Scholarship Program was completed during this quarter. The Program was part of the Memorandum of Understanding between EMPNG and the eight barging route waterways landowning tribes along the Kikori River. Over the past three years, the scholarship has funded 22 students from barging route waterways communities to attend tertiary studies.

The LNG Plant site food and agriculture program continues to deliver farm supplies and planting materials to farmers. To date, 13,932 crop seedlings and cuttings, and 1,646 tools, such as spades, digging forks, watering cans and sharpening tools, have been distributed to farmers across the four LNG Plant site villages. Women account for more than 60 percent of the farmers involved in the program, with 238 female farmers registered by the end of 2014.

In Caution Bay, fish catch landing surveys were conducted to assess the impact of company activities on fishing in LNG Plant site communities. Following agreement with the Lender Group, no further surveys are required. EMPNG is finalising the fourth quarter catch landing survey data and will compile a close-out report for all Caution Bay fisheries surveys, including fish catch landing surveys, in-village vessel surveys and mangrove use surveys. The report will be completed in early 2015.

The 295 EMPNG volunteers who gave more than 1,500 participant hours in 13 activities to help local communities during 2014 were recognised at a luncheon held this quarter. Some of the many volunteer activities conducted this year included: packing and sorting books for the Buk Bilong Pikinini children's library program; painting the Port Moresby Nature Park fences and City Mission classrooms; giving a face lift to the Port Moresby General Hospital children's playground; cleaning up the Moro market and roadside; and handing out water bottles to those who participated in the annual Walk Against Corruption in Port Moresby. Since 2010, some 1,200 EMPNG volunteers have donated more than 20,500 participant hours to support 30 community activities.

EMPNG provides annual support to the Coalition for Change, a leading non-profit advocate on the issue of gender based violence in Papua New Guinea. During this quarter, the company contributed 20,000 Kina (US\$7,700) to support the Coalition's programs, which included a White Ribbon Day fundraising breakfast on 25 November to commemorate the International Day for the Elimination of Violence Against Women.

Papua New Guinea's First Lady, Lynda Babao-O'Neill, was the guest of honour at the annual Project C.U.R.E. First Lady luncheon held in Denver, Colorado, in November.



**Papua New Guinea's First Lady, Lynda Babao-O'Neill raises awareness of her country's health care needs at the annual Project C.U.R.E. First Lady luncheon held in Denver, Colorado**

*From left: Meg O'Neill, Vice President Asia Pacific, ExxonMobil Production Company; Jeannie Ritter, Mental Health Ambassador, Mental Health Center of Denver; Frances Owens, Community Relations Director, Arc Thrift Stores; Michelle Hau'ofa, Director of Operations, Papua New Guinea Tribal Foundation; Lynda Babao-O'Neill, First Lady of Papua New Guinea; Dr. AnnaMarie Jackson, Founding First Lady of Project C.U.R.E.; and Anne Trujillo, Denver Channel 7 Anchor*



Up close:

## New Managing Director for EMPNG

EMPNG has announced that its new Managing Director, Andrew Barry, will commence his appointment in February 2015.

Andrew Barry has 20 years' international experience in the oil and gas industry, most recently as President of ExxonMobil Canada. In this capacity he has been responsible for ExxonMobil's production, development and exploration activities across Canada. Andrew has previously held several engineering, operational and planning positions associated with oil and gas production from Bass Strait, Australia. He has also been the Global Energy Advisor and Upstream Strategy Advisor for Exxon Mobil Corporation, and was Vice President of LNG Sales for ExxonMobil Qatar Inc., as well as Operations Manager for numerous onshore and offshore projects in the Gulf of Mexico, Texas, Louisiana, Colorado and Alabama. Andrew Barry holds a Bachelor of Civil Engineering degree, with First Class Honours from the Queensland University of Technology, Australia and a Masters of Business Administration from the University of Melbourne, Australia.

Andrew replaces EMPNG's current Managing Director, Peter Graham, who will retire at the end of January 2015. Peter Graham has worked in senior roles with Exxon Mobil Corporation for more than 27 years. He spent the past ten years with the PNG LNG Project, initially as Managing Director of Esso Highlands Limited, which transitioned to his current role as Managing Director, EMPNG.



Andrew Barry, new Managing Director of EMPNG

Over 1,800 people attended the event, which raised more than 4 million Kina (US\$1.5 million) for much needed medical supplies for Papua New Guinea. EMPNG provided 259,400 Kina (US\$100,000) sponsorship for the luncheon.

## Stakeholder and community engagement

The level of engagement with communities remains high to keep people informed about production and drilling activities. During the quarter, more than 14,350 attendees from 160 communities participated in some 730 formal community engagements and 1,430 informal engagements.

# ~2,160 ENGAGEMENTS

conducted in 160 communities

During these engagements, clans involved in caretaking activities along the pipeline ROW were given information about caretaking strategies, and Clan ROW Maintenance Agreements were signed with participating clans.

The EMPNG 2014 advocacy program concluded in December, with almost 100 dignitaries participating in more than ten advocacy workshops during the quarter.

Since the start of 2014, EMPNG has hosted some 900 officials from government departments, foreign embassies and the media in more than 40 workshops. To date, over 1,000 advocacy workshops have been conducted, involving more than 6,000 government and media representatives.

An EMPNG workshop and LNG Plant site tour were held during this quarter for local media to discuss the current status of production with EMPNG executives. At the end of the quarter, EMPNG hosted a media *bung* or 'gathering' where the company's executives mingled with media representatives and PNG LNG Project suppliers. During the *bung* Peter Graham introduced his successor, Andrew Barry.

The completion and successful safe start-up of EMPNG's facilities have demonstrated what can be achieved in partnership with stakeholders in Papua New Guinea, and has now set the stage for future investments in this resource-rich nation.



This Papua New Guinea Liquefied Natural Gas (PNG LNG) Quarterly Environmental and Social Report provides a progress update about ExxonMobil PNG Limited's (EMPNG) performance during the fourth quarter 2014.

EMPNG operates some US\$18.8 billion of gas production and processing facilities in the Southern Highlands, Hela, Western, Gulf and Central provinces of Papua New Guinea. More than 800 kilometres of pipeline connect the facilities, which include a gas conditioning plant in Hides, and liquefaction and storage facilities near Port Moresby. These facilities have the capacity to produce approximately 6.9 million tonnes of LNG per year. The location and elements of EMPNG facilities are shown in Figure 1.1.

Approximately 250 billion cubic metres of gas are expected to be produced and sold during the life of the facilities. This will provide a long-term supply of LNG to Asia Pacific region customers, including: the China Petroleum and Chemical Corporation (Sinopec); The Tokyo Electric Power Company Inc.; Osaka Gas Company Limited; and CPC Corporation, Taiwan.

Since the start of production, EMPNG has safely produced almost 4 million tonnes of LNG, of which 1.8 million tonnes was produced in the fourth quarter alone.

This Report is published on the PNG LNG Project website. Printed copies and translated summaries are also provided for Papua New Guinean citizens who may have limited access to the internet.



READ THE REPORT SERIES AT  
[www.pnglng.com](http://www.pnglng.com)

## 1.1 Production update

Since completing the PNG LNG Project ahead of schedule and shipping the first cargo of LNG in May 2014, all facilities have become fully operational and production has reached steady state.

By the end of 2014, almost 4 million tonnes of LNG were produced, with 1.8 million tonnes produced in the fourth quarter alone.

Celebrations were held at EMPNG worksites to commemorate the 50<sup>th</sup> cargo of LNG loaded, during this quarter. To date, 55 cargoes of LNG have been delivered to customers in Asia.



*The 50<sup>th</sup> cargo of LNG being loaded at the LNG Plant Marine Terminal*

## Hides Gas Conditioning Plant

The Hides Gas Conditioning Plant (HGCP) has achieved stable operations, with six production wells on Hides Wellpads B, C and D providing a steady supply of gas and condensate.

In December, the HGCP achieved a new production record of 1 billion cubic feet of gas produced per day.



*The HGCP site*

## Drilling

Rig 702 continued drilling on Angore Wellpad B, while Rig 703 progressed drilling operations on the Hides Wellpad F well.

The perforation program for the produced water disposal well was completed during this quarter.

**FIGURE 1.1**

PNG LNG PROJECT ELEMENTS





Rig 702 at Angore Wellpad B



Rig 703 at Hides Wellpad F

### LNG Plant

The LNG Plant has achieved steady state operations, with the HGCP, and associated gas from Gobe and Kutubu, providing a reliable feed supply to the Plant. There was a significant increase in production this quarter and a record production week was achieved in December.



The LNG Plant and Marine Terminal

### Marine facilities

By the end of 2014, 55 LNG cargoes were delivered, with 25 cargoes loaded in the fourth quarter alone. A new LNG vessel from China began sea and gas trials during this quarter.



Up close:

### First custom-built LNG ship for EMPNG

The first custom-built LNG carrier for EMPNG has already achieved a record as the largest LNG ship ever built in China.

Sea and gas trials were completed during the fourth quarter in preparation for the launch of the LNG carrier, named the *Papua*.

The 290-metre long and 26-metre tall LNG carrier was built by Hudong-Zhonghua Shipbuilding Group (Hudong), which is based in Shanghai, China. With a capacity to carry approximately 172,000 cubic metres of LNG, the *Papua* is equivalent in size to an 80,000-tonne crude oil carrier (600,000 barrels).

Papua New Guinea's First Lady, Lynda Babao-O'Neill, wife of Papua New Guinean Prime Minister, Peter O'Neill, travelled to China to officially launch the vessel. The ship will arrive in Papua New Guinea in February 2015 to commence operations with EMPNG and will be operated by Mitsui O.S.K. Lines on behalf of the company.

The *Papua* is one of four dedicated EMPNG carriers that will transport LNG from Papua New Guinea to customers in Asia. Two of the three other dedicated carriers, *Spirit of Hela* and *Gigira Laitebo*, are already in service. The fourth carrier, to be named *Kumul*, is currently under construction in China with a 2016 delivery date.



Papua New Guinea's First Lady, Lynda Babao-O'Neill, (centre front) ready to launch the Papua with dignitaries from EMPNG and China



**LNG vessel *Gigira Laitebo* docked at the LNG Plant Marine Terminal jetty**

### Permanent Facilities Compound

Construction of the Permanent Facilities Compound is on schedule for completion in 2015, with 82 percent of construction complete by the end of the quarter. To date, more than 2.2 million hours of work has been completed without a Lost Time Incident and approximately 700 people on-site.



**Construction progress at the Permanent Facilities Compound**

The Permanent Facilities Compound will include an administration office and cafeteria, as well as worker facilities such as space for *haus bungs* or 'places of gathering'.



# THE LIFE OF THE PNG LNG PROJECT

**EMPNG Managing Director, Peter Graham, is retiring in early 2015 following more than 27 years of service with Exxon Mobil Corporation. Here he reflects on highlights from the past decade of development for the PNG LNG Project.**

“Getting to project sanction was personally incredibly satisfying. In mid-2008, having just concluded the Gas Agreement and entered Front-End Engineering and Design, we worked with various government ministers and officials to agree a timeline for what needed to be done before we could give the ‘go ahead’ and sanction the Project. We set a date about 18 months out – 8 December 2009 – and agreed the deliverables required and who was responsible for them. Remarkably, we achieved project sanction on that day. It was an incredible example of teamwork and drive to achieve something very important not just for the developers but the entire country.

“The first construction teams began early works in 2010 and, within a year, the first foundations were poured for the LNG Plant process trains and the first foundation piles arrived on-site for the HGCP.

“When we ‘pushed the start button’ on the completed facilities only a few short years later, we did have an essentially trouble-free start-up. We had the benefit of early gas from the Kutubu oil fields to allow commissioning and start-up at Hides ahead of bringing the new Hides wells online, and likewise the gas from Kutubu allowed early defrost and cool-down activities to be completed at the LNG Plant.

“The first cargo celebration in May 2014 was truly a magical day. For me, it was an emotional day, bringing together so many of the people who were critical to developing the PNG LNG Project. When Prime Minister Peter O’Neill pressed the button to load the first cargo, I looked back over my shoulder and the sun was literally glistening on the *Spirit of Hela* – it was a day I’ll never forget.



**On board the Spirit of Hela, the first LNG ship to arrive at the LNG Plant Marine Terminal**

*From left: the Honourable Nixon Duban, Department of Petroleum and Energy Minister; Peter Graham, Managing Director, EMPNG; the Honourable Peter O’Neill, Prime Minister of Papua New Guinea; the Honourable Anderson Agiru, Hela Province Governor; and Decie Autin, PNG LNG Project Executive, EMPNG*



**The Spirit of Hela being loaded with the first LNG cargo**

“I am very proud of what our EMPNG team has done – we have a very capable and motivated team. If I had to select one group I’m especially proud of, it would have to be our young operations and maintenance trainee technicians – they have excelled. It is also important that we acknowledge the many people outside our organisation who played critical roles in meeting our challenges – government, landowners, suppliers and many others. Papua New Guinea is a land of opportunity, a unique place to work. Here in Papua New Guinea you can see change and you can feel it – that’s something I’ll miss,” said Peter Graham.



**Ground-breaking ceremony for the construction of the LNG Plant process trains**

EMPNG operates in accordance with commitments made in its safety, security, health, environment and social management plans. These plans are designed to protect the health and safety of workers, local communities and the environment surrounding production facilities.

## 2.1 Approach

The Production Environmental and Social Management Plan (ESMP) guides EMPNG’s operations and incorporates lessons learned from: the construction phase; Exxon Mobil Corporation’s Operations Integrity Management System requirements; and the International Finance Corporation Performance Standards.

The Production ESMP consists of two Environmental Management Plans and seven Social Management Plans, as shown in Figure 2.1. The Environmental Management Plans align geographically to production facilities, while the Social Management Plans encompass key social themes.

The ESMP and its supporting management plans apply throughout normal operating conditions, as well as reasonably foreseeable abnormal operating conditions or emergency situations.

EMPNG will periodically update the Production ESMP, in collaboration with stakeholders, to meet ongoing operational needs and the needs of Papua New Guinea’s environment.

The Production ESMP is available on the PNG LNG Project website at [www.pnglng.com](http://www.pnglng.com).



EXPLORE THE PLANS AT [www.pnglng.com](http://www.pnglng.com)

## 2.2 Management of Change

Temporary or permanent modifications to facilities, or changes to previously approved documents, plans, processes or procedures, are managed through EMPNG’s Management of Change process. Requirements for health, safety, security, environmental and social management, operability and maintenance, regulatory, cost and scheduling are considered before any proposed change can be made. Classifications are applied to changes in accordance with how they need to be managed. Class I changes require Lender Group review before implementation, while Class II changes involve Lender Group notification in the Environmental and Social Report.

No Class I or II changes were raised during the fourth quarter.

FIGURE 2.1

PRODUCTION ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN STRUCTURE



EMPNG is supporting the development of Papua New Guinean businesses by using local suppliers wherever possible.

The Enterprise Centre also continues to provide valuable capacity building programs for Papua New Guinean businesses and entrepreneurs.

### 3.1 Supplier development

Papua New Guinean businesses provide valuable services to EMPNG such as equipment hire and camp rental services. Landowner companies (Lancos) in particular provide services such as catering, security, light vehicle maintenance, heavy equipment rental, hire services and spare parts supply. In the fourth quarter, the company's total in-country spend with Lancos and non-Lanco services was more than 245 million Kina (US\$94.4 million), of which approximately 97 million Kina (US\$37.4 million) was spent on Lanco services.

To date, EMPNG's total in-country spend has reached more than 11.37 billion Kina (US\$4.38 billion), with 4.52 billion Kina (US\$1.74 billion) spent on Lanco services.

### 3.2 Enterprise Centre

The Enterprise Centre is building sustainable operations through contracts with EMPNG and external organisations. During this quarter, the Centre secured contracts from government agencies such as the Department of Defence, Department of Justice, and Department of Labour and Industrial Relations. The Centre also signed a contract with the United Nations Development Programme and renewed its contract with EMPNG for another three years to provide business assessment and support services to Papua New Guinean businesses.

In addition, the Centre is providing staff development and training programs for the Office of Climate Change and Development, and will manage supplier development for the Stanley Gas Project operated by Talisman Energy. The scope of this work is similar to the PNG LNG Project's Supplier Development Program.

The Enterprise Centre assisted 87 entrepreneurs during this quarter. Since its establishment in 2010, the Centre has provided services to 17,291 Papua New Guinean entrepreneurs. More than 13,500 days of training have also been provided through the Centre to date, with 1,587 training days delivered during this quarter alone.



*Customer service training conducted for National Judicial Staff Services*



*National Judicial Staff Services workers receive their customer service training certificates*

#### 3.2.1 PNG Employment and Supplier Database management

The PNG Employment and Supplier Database was offline during this quarter for technical upgrades that will make it more robust and user-friendly. The Database is expected to be back online from the second quarter 2015.

EMPNG is working with communities and non-government organisations to deliver sustainable development programs that focus on building the capacity of local communities and community-based organisations.

### 4.1 Community investment

The company continues to invest in sustainable community development through the Community Development Support Management Plan and its community investment programs.

The Plan provides a framework for how community development support activities are identified, selected, prioritised, implemented, monitored and evaluated. Given the broad range of community development support activities, they are grouped under two geographic areas:

- Project area programs – planned activities that are implemented near production facilities. This covers the Upstream area, Pipeline Right of Way (ROW) and LNG Plant site.
- National programs – support for initiatives and activities that target the national level and projects in Port Moresby.

#### 4.1.1 Project area programs

EMPNG's Project area programs focus on building sustainable capacity in the communities surrounding production facilities. A significant portion of work during the fourth quarter involved donating materials and improving infrastructure in local communities and schools. EMPNG also worked in partnership with the Papua New Guinea Tribal Foundation to support the distribution of 20 boxes of medical equipment to nine health clinics in communities near production facilities.

#### Upstream area

Infrastructure work was completed at Tugupawi Primary School with the re-opening of the school's fully refurbished recreation hall this quarter. Works progressed at Tari Secondary School; Dauli Teachers College; Idauwi, Mananda and Baguale primary schools; and Inu and Omati elementary schools.

Four new volleyball and basketball courts, along with associated sports equipment, were provided to Kandiawi, Kindipa and Kawale communities in Angore.

Five recipients of EMPNG agricultural scholarships graduated from the Highlands Agriculture College in the Western Highlands Province this quarter. The three male and two female students completed two-year scholarships and each achieved a Certificate of Tropical Agriculture. Graduate Jerry Hoga, who majored in rice production, said he was keen to apply the skills he had learned and wanted to involve his community in producing their own rice instead of buying rice from stores.



Up close:

### Local communities get medical supplies

Twenty boxes of medical supplies were provided to nine health clinics in communities near EMPNG facilities during this quarter through a partnership between EMPNG, the Papua New Guinea Tribal Foundation and Project C.U.R.E.

The medical kits each contained 5,000 Kina (US\$1,930) of basic medical supplies such as towels, wipes, bandages, saline water bottles, tongue depressors, skin dressing kits and adhesive bandages.

Deliveries were made to Idauwi, Mananda, Para, Angore and Paua clinics in the Upstream area, and to Porebada and Boera clinics near the LNG Plant site. Funds for the medical equipment were raised through Project C.U.R.E. with the support of a 22,000 Kina (US\$8,480) donation from EMPNG.



A Project C.U.R.E medical kit donated to Paua clinic

A 'Stop, Drop and Roll' fire safety session was held with children from local HGCP schools during this quarter. The session emphasised the basics in fire prevention and action in case of a fire. The children also had the opportunity to see and touch the new HGCP fire truck.

In Hides, community engagements focused on raising awareness about road safety, particularly with regard to the safety of children near roads. Parents of young children were reminded to be mindful of their children's safety near high traffic areas.

#### Pipeline Right of Way

In partnership with Buk Bilong Pikinini children's libraries, EMPNG provided books for a new library at Lake Kutubu Primary School in the Southern Highlands Province.

The donation included eight boxes of assorted reading books and 50 books from the Toea children's adventure series.



**Buk Bilong Pikinini staff opening the boxes of books donated by EMPNG for the Lake Kutubu library**

A three-year, EMPNG funded, Barging Route Waterways Memorandum of Understanding Scholarship Program was completed during this quarter. The Program was part of the Memorandum of Understanding between EMPNG and the eight barging route waterways landowning tribes along the Kikori River. Over the past three years, the scholarship has funded 22 students from barging route waterways communities to attend tertiary studies.

World Acquired Immunodeficiency Syndrome (AIDS) Day was commemorated this quarter with three days of activities to raise awareness about Human Immunodeficiency Virus (HIV) and AIDS in local communities. The activities, held from 29 November to World AIDS Day on 1 December, included health talks, a video night and a sharing of experiences from people living with HIV and AIDS. A candlelight vigil was also held in memory of people who had died from HIV/AIDS.



**Residents at Moro B Camp wearing red shirts in support of World AIDS Day**

Donations of food and gifts from EMPNG made Christmas Day brighter for 15 young patients and their guardians in the Kikori Rural Hospital children's ward. EMPNG workers delivered the gifts and shared a Christmas cake with the children, their parents, guardians and hospital staff to celebrate Christmas.



**Donations of food and gifts received by Kikori Rural Hospital in time for Christmas**

Engagements continue with communities along the pipeline ROW. During this quarter, Tolapu residents received information about road safety and community safety along the ROW. The Socioeconomic team also explained caretaking safety procedures to clans involved in pipeline ROW caretaking activities.

### LNG Plant site

EMPNG provided prizes to nine primary and high schools from LNG Plant site communities for their end-of-year school speech day events. The prizes consisted of *Kastom Stori Sene Gori* or 'traditional stories' books, Toea money management games and school stationery gift vouchers worth 2,000 Kina (US\$770).



**A speech day cultural dancing display performed by students of Lea Lea Elementary School**

At Redscar High School, maintenance works were completed on classrooms, the library, the staff room and sporting facilities this quarter. A group of 120 Grade 10 students were the first to sit for their national examinations in the refurbished classrooms.

More than ten community safety education sessions were conducted in seven schools and in villages surrounding the LNG Plant site this quarter.



**Students playing on the new basketball court at Redscar High School**



**Distribution of agriculture tools at Porebada**

Following agreement with the Lender Group, no further surveys are required in Caution Bay. EMPNG is finalising the fourth quarter catch landing survey data and will compile a close-out report for all Caution Bay fisheries surveys, including fish catch landing surveys, in-village vessel surveys and mangrove use surveys. The report will be completed in early 2015.

#### 4.1.2 National programs

In addition to development initiatives focused on communities near production facilities, EMPNG supports nationwide community development programs that encompass education and training, the Exxon Mobil Corporation Science Ambassador Program, community health, and volunteer activities.

In December, EMPNG held an event to acknowledge its community investment partners. More than 50 representatives from over 30 organisations attended the event, which included partners from Texas Children's Hospital, Port Moresby Nature Park, The Voice Inc., the Salvation Army, the Business and Professional Women's Club, We Care Foundation, the US Embassy, the World Bank, Population Services International, the Papua New Guinea Tribal Foundation and the Urban Youth Employment Program.



**Peter Graham, Managing Director, EMPNG (centre), and his successor, Andrew Barry, talking with a community investment partner**



**Refurbished classrooms at Redscar High School**

Over 1,000 primary and high school students, teachers, and community members participated in the sessions. The safety education included interactive games that delivered messages about safety at sea, road safety and safe behaviours within communities.

The LNG Plant site food and agriculture program continues to deliver farm supplies and planting materials to farmers. To date, 13,932 crop seedlings and cuttings, and 1,646 tools such as spades, digging forks, watering cans and sharpening tools have been distributed to farmers across the four LNG Plant site villages. Women account for more than 60 percent of the farmers involved in the program, with 238 female farmers registered by the end of 2014.

In Caution Bay, fish catch landing surveys were conducted from 18 November to 1 December to assess the impact of company activities on fishing in local communities. Survey results showed that the number of lead fishers doubled this quarter compared to the third quarter 2014. Only 175 lead fishers braved poor weather conditions last quarter, while more favourable weather during this quarter attracted 367 fishers.

The results also showed that Caution Bay fishers landed a combined catch of more than 3,880 kilograms of fish, of which over 95 percent was sold.

In 2014, EMPNG contributed more than 3 million Kina (US\$1.2 million) to support community-based programs that encompassed education, health, environment, and women's economic opportunities.

### Education and training

Eighty laptops previously used for EMPNG trainees were donated to three tertiary institutions this quarter. Female students from Don Bosco Technical College received 30 laptops for their night studies. This donation means the students have no need to venture out to the common computer laboratory at night. Another 40 laptops were donated to the Papua New Guinea University of Technology's four engineering departments. The remaining ten laptops were given to the University of Papua New Guinea's School of Medicine and Health Sciences to be used as teaching resources.

EMPNG also donated a generator worth 234,000 Kina (US\$90,200) to the Papua New Guinea University of Technology. The generator will help provide a reliable power supply to the female dormitories and library.



*Peter Graham, Managing Director, EMPNG (pictured centre back) with students and teachers from Don Bosco Technical College*



*Representatives from the Papua New Guinea University of Technology receiving the donation of laptops and a generator*

The Women in Energy Network held a 'lunch and learn' panel discussion about domestic violence with representatives from the Consultative Implementation Monitoring Council, the Warrior Culture group and academia during this quarter. Since 2012 EMPNG has provided annual support to the Coalition for Change, a leading non-profit advocate on the issue of gender based violence in Papua New Guinea. EMPNG contributed 20,000 Kina (US\$7,700) to support the Coalition's programs, which included a White Ribbon Day fundraising breakfast on 25 November to commemorate the International Day for the Elimination of Violence Against Women.



*Lady Winifred Kamit, President for the Coalition for Change with Peter Graham, Managing Director, EMPNG*

The company supported the professional development of accountants and business professionals in Papua New Guinea this quarter through a 20,000 Kina (US\$7,700) sponsorship of the annual Certified Practising Accountants conference in Port Moresby. EMPNG has provided support to the conference for the past three years. More than 1,000 participants attended this year's event, which was held in November.



*EMPNG Managing Director, Peter Graham and Certified Practising Accountants Executives, Thomas Holland, Lisa Costigan, Dr. Ken Ngangan and Jeff Unda*

EMPNG also provided a cash donation of 20,000 Kina (US\$7,700) and donated white goods to the We Care Foundation, a non-profit organisation that supports underprivileged children in Port Moresby with the help and services they need to realise their potential. The Foundation focuses on supporting children with education access and support, and providing their carers with training courses. The Foundation held its annual Christmas Picnic for more than 500 children in its program at the Port Moresby Nature Park on 29 November.



*Children attending the We Care Foundation's Christmas Picnic*

## Science Ambassador Program

The 2014 Science Ambassador Program concluded at the end of the school year. Throughout this year, 22 classes from seven schools participated in the Program, which provided students with education on topics such as the origins of oil and gas, and rocks and geology. Exxon Mobil Corporation's Science Ambassador Program aims to give students a first-hand look at rocks and fossils to make science education fun and encourage students to pursue careers in science and engineering. EMPNG is developing the schedule for the 2015 Science Ambassador Program.

## Community health

EMPNG's contribution to the development of sustainable health initiatives in Papua New Guinea is delivered through the 'Partnership in Health' program with the Papua New Guinea Institute of Medical Research (IMR).

During this quarter, the IMR submitted its sixth bi-annual scientific report to the Papua New Guinean Government and to EMPNG. The report provided an update on the IMR's Integrated Health and Demographic Surveillance System (iHDSS). EMPNG is supporting the IMR with the development of the iHDSS, which is designed to provide evidence-based public health monitoring and surveillance for Papua New Guinea.

According to early indications from the iHDSS, respiratory infections such as tuberculosis and pneumonia remain among the leading causes of illness in the participating iHDSS communities of Hiri and Hides and the two control sites of Asaro Valley and KarKar Island.

To date over 70,000 Papua New Guineans have participated in iHDSS surveys and more than 14,000 patients have been assisted in community clinics by IMR clinicians. Further information about the IMR's research is available at [www.pngimr.org.pg](http://www.pngimr.org.pg).

With support from EMPNG, the IMR continues to conduct additional research into tuberculosis, maternal and child health, sexually transmitted infections, non-communicable diseases, and diarrheal disease.

To date, over 2,000 participants have been interviewed as part of the Tuberculosis Health Study and 1,322 sputum samples collected and tested for tuberculosis. Another 900 people have participated in the non-communicable disease study, while 765 women have been involved in the Healthy Pregnancy Study (sexually transmitted infections) and 482 women have participated in the Maternal and Child Health Study. Fieldwork for these studies was completed during this quarter. The IMR is expected to release findings from the studies in 2015.

The Texas Children's Hospital's teaching physician delivered more than 104 lectures and 470 mentoring hours to 148 University of Papua New Guinea School of Medicine and Health Science students, as well as to physicians and nurses at the Port Moresby General Hospital, this quarter. The Texas Children's Hospital team also provided training on severe acute malnutrition management for 53 health workers from 15 hospitals across the country. In addition to their teaching commitments, the doctors are currently managing the care of more than 200 children with severe acute malnutrition.

Papua New Guinea's First Lady, Lynda Babao-O'Neill, was the guest of honour at the annual Project C.U.R.E. First Lady luncheon held in Denver, Colorado, in November. Over 1,800 people attended the event, which raised more than 4 million Kina (US\$1.5 million) for much needed medical supplies for Papua New Guinea. EMPNG provided 259,400 Kina (US\$100,000) sponsorship for the luncheon.

## Volunteers

The 295 EMPNG volunteers who gave more than 1,500 participant hours in 13 activities to help local communities during 2014 were recognised at a luncheon held this quarter. Some of the many volunteer activities conducted this year included packing and sorting books for the Buk Bilong Pikinini children's library program, painting the Port Moresby Nature Park fences and City Mission classrooms, giving a face lift to the Port Moresby General Hospital children's playground, cleaning up the Moro market and roadside, and handing out water bottles to those who participated in the annual Walk Against Corruption in Port Moresby.

Since 2010, some 1,200 EMPNG volunteers have donated more than 20,500 participant hours to support 30 community activities. Refer to *Case Study – Helping communities* for further information.

## 4.2 Project induced in-migration

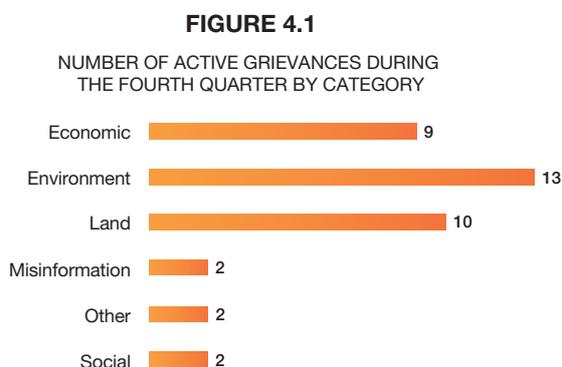
During planning for the PNG LNG Project, Project Induced In-Migration (PIIM) was identified in a social impact assessment as a potential risk. Measures to monitor and manage PIIM were therefore incorporated in EMPNG's construction and production social management plans. To date, PIIM monitoring has consisted of a combination of data analysis from the iHDSS and community observations.

The greatest risk of PIIM was during the construction period. Since EMPNG entered production, the focus on PIIM has reduced and a close-out report was finalised this quarter. The report found that, while PIIM did occur in Hides and at the LNG Plant site villages, it did not reach a critical level where the assimilative capacity of the host communities was affected. While changes within communities were observed, including increased populations, increased housing stock, and inflation of goods and services in areas near EMPNG facilities, basic services were not overwhelmed and there was no evidence of social conflict linked to in-migration.

While EMPNG is continuing to monitor changes to local communities as part of the company's health and social programs, the Lender Group's Independent Environment and Social Consultant (IESC) has advised there is no further requirement to report specifically on PIIM.

## 4.3 Community grievance management

EMPNG addressed 38 active grievances during this quarter, including 34 raised within the quarter. By the end of the quarter, 31 grievances were closed. The complex nature of some grievances requires additional time for investigation so they can be addressed appropriately. Timely closure of grievances remains a priority, with 84 percent of grievances closed within the 30-day target timeframe. Figure 4.1 outlines the types of grievances addressed in the fourth quarter.



Environment-related grievances accounted for 34 percent of active grievances and primarily related to community concerns about flaring near the LNG Plant site. EMPNG engaged with these communities to keep them informed of flaring activities and to address residents' concerns.

Land-related grievances accounted for 26 percent and regarded compensation assessments, payments and concerns about damage to land. Several of these grievances were found to be not genuine. Compensation was paid for two grievances, while others are still being addressed.

Economic grievances represented 24 percent of concerns raised. Many of these related to requests for agricultural supplies from villages surrounding the LNG Plant site. Other economic claims were about requests for employment with EMPNG. Grievants were provided with advice about seeking employment with EMPNG, as well as information about the food and agriculture program.

At the end of this quarter, seven grievances remained open for further investigation in the next quarter.



## HELPING COMMUNITIES

**Since 2010, some 1,200 EMPNG workers have volunteered 20,500 hours in more than 30 activities to help local communities.**

Volunteering spans all levels of the company, from the Managing Director through to field contract workers and EMPNG families, who continue to be involved in activities that range from cleaning rubbish from beachside areas through to reading books to children in hospital. In 2014 alone, 295 EMPNG volunteers completed more than 1,500 participant hours in 13 activities throughout the EMPNG operations area as members of the company's Volunteer Involvement Program.



*A team of 40 EMPNG volunteers collected more than 250 bags of rubbish at an Ela Beach clean up held in October 2012*



*Volunteers involved in painting buildings for City Mission*

The Program is an ExxonMobil supported corporate initiative, which provides workers and their family members with an opportunity to give back to the community.

Some of the many local organisations that have benefited from EMPNG volunteer support include the Buk Bilong Pikinini children's libraries, the Port Moresby Nature Park, City Mission and the Port Moresby General Hospital children's ward. In addition, individuals and teams have provided specific or technical support to some community investment partners. For example, EMPNG Public and Government Affairs workers provided scribe support to the Papua New Guinea Women's Forum and technical support for the Advancing Leadership Papua New Guinea Network.

### **Buk Bilong Pikinini children's libraries**

EMPNG volunteers regularly sort books for the Buk Bilong Pikinini children's libraries. Buk Bilong Pikinini establishes children's libraries throughout Papua New Guinea, and currently operates in 17 libraries across the nation.

During 2014, 30 volunteers, including PNG LNG Project Executive Decie Autin, were involved in sorting books for the libraries. In late 2013, EMPNG donated more than 90,000 Kina (US\$34,700) to refurbish the Buk Bilong Pikinini library in the Koki market area. The funds were used to replace floorboards, paint the building, provide water tanks, repair doors and windows, and install insect screens to improve the safety and overall functioning of the library. A team of more than 40 EMPNG volunteers conducted the refurbishment works.



*Decie Autin, PNG LNG Project Executive, EMPNG, was among the volunteers sorting books in support of the Buk Bilong Pikinini children's libraries*

### **Port Moresby General Hospital Children's Ward**

EMPNG workers and their families have been involved in multiple volunteer activities at the Port Moresby General Hospital children's ward. For example, in June 2014, EMPNG Managing Director, Peter Graham, joined 50 workers and their families in refurbishing the playground at the Hospital's children's ward. The volunteers were involved in painting the fence, replacing old swings, spreading gravel and painting decorative pictures on walls to make the playground a brighter and happier place for the Hospital's young patients.



## HELPING COMMUNITIES

In September 2014, EMPNG volunteers read books to children's ward patients as part of National Literacy Week activities. The volunteers also donated books to the children's ward library.



An EMPNG volunteer reading to a young patient at the Port Moresby General Hospital children's ward

### Port Moresby Nature Park

EMPNG volunteers provide ongoing support to Port Moresby Nature Park, with infrastructure and technical support given this year alone. For example, during the second quarter 2014, a team of 26 EMPNG volunteers painted walkways and moved plants at the Park.



Volunteers painting fences at the Port Moresby Nature Park

### Walk Against Corruption

Since 2010, EMPNG volunteers have participated in the annual Sir Anthony Siaguru Walk Against Corruption, organised by Transparency International Papua New Guinea. The walk aims to raise awareness about the effects of corruption. This year, 30 EMPNG volunteers joined the walk on 25 May 2014, while another 30 distributed water to the more than 2,000 walkers who were led by EMPNG Managing Director, Peter Graham.



Peter Graham, EMPNG Managing Director, leads the 2,000-strong group of walkers in the annual Sir Anthony Siaguru Walk Against Corruption



### Up close:

### Why I volunteer – Freda Tamdodo

EMPNG Global Real Estate and Facilities Data Technician, Freda Tamdodo, spends much of her spare time volunteering as part of the company's Volunteer Involvement Program. This year, Freda contributed 21 hours of her personal time to the Program.

Freda said she enjoyed volunteering as it gave her the chance to meet people and give back to her local community.

"Participating in the volunteering program this year has been a very rewarding experience for me personally and I am humbled and honoured to be recognised for this work, which I enjoy," said Freda.



Freda Tamdodo (centre front) sorting books for the Buk Bilong Pikinini children's libraries

Livelihood restoration and standard of living indicators are used to determine the success of EMPNG’s Livelihood Restoration Program. This Program is supporting people who have been physically or economically displaced by EMPNG activities.

In accordance with requirements of the *Oil and Gas Act 1998*, compensation is paid to households and individuals who were physically or economically displaced as a result of PNG LNG Project construction.

## 5.1 Compensation

EMPNG continues to engage with clans to complete Clan Agency Agreements along the onshore pipeline ROW from Homa to Dajia River, and in Angore.

By the end of the fourth quarter, 18 Clan Agency Agreements were signed and 14 compensation payments made for access roads and a laydown area in Angore, a road along the onshore pipeline route, and for land access across 3 kilometres of the onshore pipeline ROW.

The progression of some Clan Agency Agreements has been impacted by clan disputes regarding customary land ownership. These Agreements will progress as clan disputes are resolved.

## 5.2 Livelihood restoration

EMPNG continues to support and assess the livelihood status of resettled households through the Livelihood Restoration and Monitoring and Evaluation programs.

The distribution of livestock, the delivery of poultry and training about their care, as well as crop training and outreach programs, continued during this quarter.

Preliminary results from a 25 percent sample of the economically displaced households originally identified showed that, in most cases, living conditions had improved as a result of EMPNG’s Livelihood Restoration Program. EMPNG is conducting a further evaluation of resettled households, with the results to be published in 2015.

Preparations also began this quarter for a Resettlement Completion Audit to be conducted by a third party auditor in 2015.



*Gardens re-established by households affected by resettlement in the Hides/Komo areas*

EMPNG is providing training opportunities to continually develop the skills of the production team and, in particular, to build the capacity of the Papua New Guinean workforce.

### 6.1 Workforce composition

At the end of December, the production workforce reached 2,178, of which 1,537 were Papua New Guineans.

### 6.2 Workforce training

The company is delivering ongoing workforce training programs to build the skills and knowledge of Papua New Guinean workers. In the fourth quarter, more than 23,000 hours of training were delivered to almost 1,800 EMPNG and contractor employees through 854 courses. Two thirds of these workers were Papua New Guineans.

#### 6.2.1 Production training

More than 15,600 hours of training was provided to 861 EMPNG employees through some 810 courses delivered this quarter. Papua New Guineans comprised more than half of the training recipients, and more than one third of these were women.

Training courses focused on the development of graduate engineers, Operations and Maintenance trainees, and technical training for production workers. Course topics included: Hazard Awareness, Basic Fire training, Gas Testing, Ship Loading, preparing equipment for maintenance, and a variety of occupational health competencies.

#### Engineering

Three engineers from the graduate training development program began their full-time roles in December. One of the participants is a surveillance engineer for LNG Plant utilities covering water, nitrogen, air and waste. Another is a machinery engineer, while the third is responsible for operations integrity at the LNG Plant. For further information refer to *Case Study – The sky's the limit for EMPNG trainees*.

An additional two engineers from the first intake travelled to Italy during the quarter for advanced specialist training provided by the primary compressor vendor.

#### Operations and maintenance

A newspaper advertising campaign was launched this quarter to recruit 30 candidates for the third intake of Operations and Maintenance trainees. Selected candidates will begin the training program in 2015. Like their predecessors, they will complete Basic Skills and Advanced Skills training, as well as on-the-job training where they will learn about personal and team safety procedures, how to work in a team environment, and working with complex equipment for LNG production.



Up close:

### A lesson in LNG production

Three engineering students from the University of Technology in Lae have spent their summer holiday learning how to produce LNG at EMPNG facilities.

The students, Stephanie Manoi, Francis Sakato and Immaculate Wanjik, spent ten weeks at the LNG Plant working alongside experienced technicians and engineers.

Stephanie had the opportunity to focus on surveillance engineering, working on the implementation of energy efficiency measures at the LNG Plant.

Francis focused on machinery engineering, working on vibration monitoring and lube oil analysis, while Immaculate worked on cyber security of the control system.

“The key thing I learned during my vacation training is that communication, respect and teamwork are very important in an organisation. If you know how to communicate well, be a team player and show that you have respect for those you work with then that will take you a long way,” Immaculate said.

Stephanie said the vacation training gave her confidence in the workplace. “You don’t have to know everything, if you have the passion and interest in what you are doing, no task is too big. It has inspired me not to be limited to where I am, but to reach out to others and learn as much as I can.”

Francis said the training had enabled him to build a strong foundation for his career. “I learned about safety, teamwork, taking initiative, setting work priorities and time management. One of the key things that really stood out was the value of teamwork. I will maintain the teamwork spirit throughout my career.”



Vacation training students Francis Sakato, Stephanie Manoi and Immaculate Wanjik

By the end of this quarter, more than 95 percent of Operations and Maintenance trainees from the first intake had achieved Technician Level 1, while the second trainee intake had almost completed their Technician Level 1 training requirements. To achieve Technician Level 1, trainees must demonstrate a high quality of work, along with initiative and the ability to self-monitor. They must also have strong planning and organisational skills, be able to demonstrate teamwork and competency at the worksite and show high levels of safety, health and environmental awareness.

### 6.2.2 Contractor training

Approximately 7,400 hours of training was provided to 916 contractor workers through 44 courses delivered during the quarter. More than 780 of the training recipients were Papua New Guineans and, of these, 59 were women.

Training courses delivered by contractors are specific to their scope of work and included topics such as cultural awareness, driving safety, working at heights, hearing conservation and hazard identification.

## 6.3 Workforce health

EMPNG is implementing production workforce health programs, and fine-tuning contractor health services delivery, performance monitoring and reporting, across the three primary health management areas of: medical, public health and industrial hygiene.

During this quarter, the IESC reported that EMPNG's occupational health program was a "best practice" system.

### Medical

The clinical service provider has successfully integrated clinical services into production activities. This includes weekly health toolbox talks delivered to production teams by the service provider, and monthly clinical performance reviews provided to site management.

The clinical educator, who was appointed in the third quarter 2014, commenced training for healthcare workers during this quarter.

Clinical operations continue to achieve a high standard of performance across all worksites.

### Public health

Monthly health assessments of food safety, potable water safety, vector surveillance and control, camp hygiene and sanitation, and infectious disease outbreak response were completed during this quarter.

Results of these assessments show that EMPNG and its contractors and service providers are meeting camp health standards and effectively implementing program improvements.

For example, hepatitis B vaccinations were offered to camp housekeeping and site emergency response teams to reduce the risk of these workers contracting hepatitis while carrying out their duties.

Also during this quarter, potable water treatment plant workers participated in training on the operation of a new potable water treatment facility at the LNG Plant. Topics covered included the operation of the water treatment facility, collection and delivery of water samples for laboratory testing, and company and government reporting requirements.

Vector surveillance services, including daily mosquito trapping and larva site treatment, were completed this quarter as scheduled. Reminders about vector management procedures were distributed to workers by email and during toolbox discussions. These reminders covered general vector awareness, how to identify mosquito breeding areas, bite prevention, and advice about seeking medical attention if symptoms of mosquito-borne illness occur.

### Industrial hygiene

Production-related industrial hygiene programs continued this quarter. These included implementation of the exposure assessment system and programs for: hazardous materials communication; noise and hearing conservation; respiratory protection; and heat stress. Performance assessments indicate EMPNG is progressing its implementation of industrial hygiene programs as expected.

### Other strategic initiatives

Production teams were reminded of significant world health days that occurred during this quarter. Worksite toolbox talks were dedicated to raising awareness about Global Handwashing Day on 15 October, World Diabetes Day on 14 November and World AIDS Day on 1 December.

## 6.4 Workforce safety

EMPNG's continued reinforcement of its safety focus areas resulted in strong safety performance throughout 2014. Focus areas included creating an actively caring safety leadership environment, identifying hazards and reducing risk tolerance, and managing higher hazard risks.

Key safety activities this quarter included:

- 'Finish Strong' campaign – EMPNG's year-end 'Finish Strong' campaign emphasised the need for workers to recognise, understand and mitigate hazards. The campaign involved Safety Weeks held at all EMPNG worksites and included activities such as a 'spot the hazard' competition, a last minute risk assessment relay, and a security quiz.
- Safety leadership program – 128 EMPNG and contract managers and supervisors were trained in ExxonMobil's Fundamentals of Safety leadership program.

This is a corporate program that includes best practices and common safety models used throughout the oil and gas industry. It provides managers and supervisors with the skills, knowledge, and desire to lead teams in achieving an injury and incident-free work environment, and is used to drive a strong safety culture throughout organisations. The program will continue to be a key training mechanism for building safety leadership skills in the workforce.

- Contractor leadership workshop – More than 75 people from over 15 different companies who perform contract services for EMPNG attended the second Contractor Safety, Security, Health and Environment Leadership Workshop for 2014 in Port Moresby. The workshop theme was ‘The 30+ Year Journey Begins: Nobody Gets Hurt’. It focused cross-company discussions and forward action planning on establishing a ‘No Hurt’/ ‘I Care’ safety culture. Participants were also provided with additional training on EMPNG’s Production ESMP.



*The Port Moresby office Safety, Security, Health and Environment Committee*

Permanent Facilities Compound and Drilling teams continue to achieve commendable safety records. A safety milestone was reached at the Permanent Facilities Compound, with over two million work hours achieved without a Lost Time Incident this quarter.



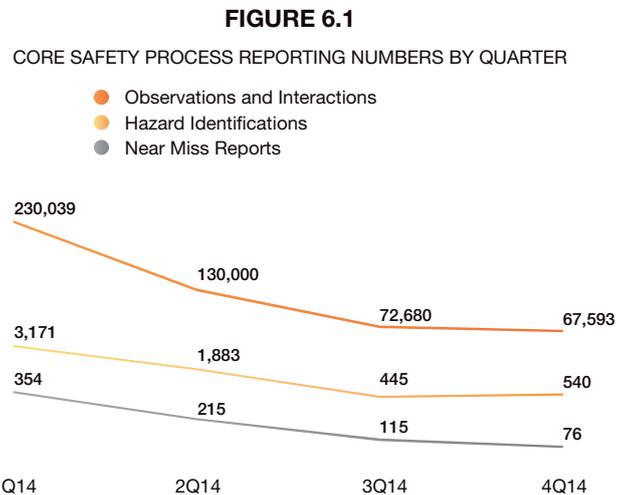
*Workers at the Permanent Facilities Compound celebrating two million hours worked without a Lost Time Incident*

Both drilling rigs operated with zero recordable incidents and no reportable spills during this quarter. Rig 703 achieved 476 consecutive days without a Lost Time Incident by the end of the quarter.

### 6.4.1 Leading and lagging indicators

EMPNG measures safety system effectiveness through leading and lagging safety indicators. Leading indicators measure proactive incident prevention efforts, while lagging indicators measure actual incidents and their consequences.

Core safety processes of Observations and Interactions, Near Miss Reporting, and Hazard Identification are used for incident prevention. The demobilisation of more than 10,000 construction workers during 2014 is reflected in the decreasing trend in core safety process reporting, as shown in Figure 6.1.



By the end of December, EMPNG worksites achieved a combined 23 million work hours without a Lost Time Incident for 2014. Since July 2013, more than 48 million work hours have been completed without a Lost Time Incident. EMPNG’s high safety performance standards have resulted in a current 365-day moving average of 0.18 for the Total Recordable Incident Rate and 0.00 for the Lost Time Incident Rate.

## 6.5 Security

An average of 3,000 training hours is being delivered each quarter as part of a comprehensive training and mentoring program to develop the skills of Papua New Guinean security personnel. The training emphasises workplace safety and adherence to the Voluntary Principles on Security and Human Rights.

Security workers also continue to receive training in the Safety Champions initiative, with 449 trained to date. Another 255 security workers have completed the internationally accredited Safe Driver Training course.

## 6.6 Worker welfare and conditions

EMPNG operates in accordance with the Labour and Working Conditions Management Plan to maintain high standards of worker welfare and working conditions.

### 6.6.1 Camps

Work is progressing on the refurbishment of camp amenities to meet the needs of the production workforce. For example, a new potable water system was installed at the LNG Plant camp during this quarter. Work also began on refurbishing the LNG Plant camp kitchen. A temporary kitchen is operating during these works to maintain service levels. Improvements to pathways and landscaping continued at both the LNG Plant and HGCP worker camps.

Production Camp Committees are now well established, with regular meetings proving an effective forum to identify and address recommendations for camp improvements as well as communicating positive feedback and upcoming initiatives. During this quarter, the camp contractor's senior management team conducted a walkthrough of the HGCP and LNG Plant camps, accompanied by EMPNG representatives, to meet with their staff, gauge current service levels and identify focus areas for improvement in 2015. Newsletters were also introduced to both camps in the quarter to keep residents informed about camp updates and activities.

Internet access and commissaries established at camps in the third quarter 2014 were operating successfully during this quarter.

### 6.6.2 Labour and working conditions

EMPNG is committed to maintaining a productive work environment by creating work and training opportunities that enable continuous learning for workers.

In addition to providing ongoing training programs, EMPNG aims to ensure that all new and existing employees observe the highest standards of integrity in business conduct and operate in an atmosphere of mutual trust and respect. Therefore, all new production workers are given a Standards of Business Conduct booklet as part of the company's induction program. Existing workers are also provided with periodic refresher training, which covers topics such as ethics, conflicts of interest, the use of corporate assets, anti-corruption, customer relations, alcohol and drug use, equal employment opportunity, harassment in the workplace, and health, safety and environment.

During this quarter, almost 50 EMPNG workers participated in a Women in Energy Network 'lunch and learn' panel discussion about domestic violence. The panel included representatives from the Consultative Implementation Monitoring Council, the Warrior Culture group and academia.

Compulsory cultural awareness training also continues to help workers better understand the diversity of Papua New Guinean cultures within the workplace. Camp dining facilities are catering to the needs of the multicultural workforce with customised menus, such as Halal and vegetarian meals, as well as special meals that were provided for workers who celebrated Christmas while at EMPNG camps.



# THE SKY'S THE LIMIT FOR EMPNG TRAINEES

**EMPNG is investing in ongoing training to develop the skills of Papua New Guinean production workers so they can achieve their career goals both within Papua New Guinea and internationally.**

In addition to a broad range of training delivered to all production workers, EMPNG is providing specialised training through the Operations and Maintenance training program, and the graduate training development program.

The Operations and Maintenance training program aims to provide tertiary-level students with knowledge and skills that enable them to become technicians responsible for the safe and efficient operation and maintenance of EMPNG facilities.

The graduate training development program provides engineering graduates with experience across many areas including production operations, technical support, drilling, and safety, health and environment. The graduates learn directly from mentors and industry experts and gain hands-on experience with EMPNG's global operations, enabling them to build a global network of colleagues.

### Operations and Maintenance training program

Two intakes for the Operations and Maintenance training program have been recruited to date, with a third intake advertised during this quarter. Key program statistics for the first two intakes are outlined in Table 1.

**Table 1 – Operations and Maintenance training program statistics**

	Intake 1	Intake 2
Number of trainees	59	74
Recruitment year	2010	2012
Gender of trainees	43 males and 16 females	54 males and 20 females
Program structure	Basic Skills: 18 months Advanced Skills: 12 Months in Canada On-the-job: 24-36 months	Basic Skills: 12 months Advanced Skills: 12 Months in Malaysia On-the-job: 24-36 months
Trainee disciplines	Operations: 32 Maintenance: 27	Operations: 31 Maintenance: 43
Trainee assignments	LNG Plant: 41 HGCP: 18	LNG Plant: 41 HGCP: 33

More than 95 percent of EMPNG's first intake of Operations and Maintenance trainees, who were recruited in 2010, have already achieved Technician Level 1.



*Students from the first intake of the Operations and Maintenance training program*



*The second intake of Operations and Maintenance trainees prior to their departure to Malaysia for training*

Esther Kila is among the 134 trainees from the first two intakes who are realising the benefits of being part of the Operations and Maintenance training program. She was one of the first trainees to advance to Technician Level 1.

"I am an Operator Technician, responsible for the Utilities, Storage and Loading Areas in the LNG Plant. I have found that working in this industry has brought a lot of beneficial changes to my life within a short period of time. Never did I see myself working in the LNG business to begin with, nor did I imagine I would one day be working with big equipment such as power generators, compressors, pumps, or the loading arms used to transfer LNG to the huge LNG carriers. As a female, I have ventured into a traditionally male-dominated industry, and being quite small in size it has posed challenges for me. However, the company has helped me to grow confidently in progressing my career. I have to say I am very proud of my achievements so far and grateful for the opportunity I was given. I have the necessary tools and resources to help in my training, but more importantly, is the team that I work with every day.



# THE SKY'S THE LIMIT FOR EMPNG TRAINEES

“We have a multitude of nationalities, different personalities and backgrounds. The vast amount of experience and knowledge available on-site makes my job interesting. One of the great things about this job is that we never stop learning. Every day there is something new to learn, and every day after there is still more to learn.”



*Esther Kila, one of the first Operations and Maintenance trainees to achieve Technician Level 1, working at the LNG Plant*

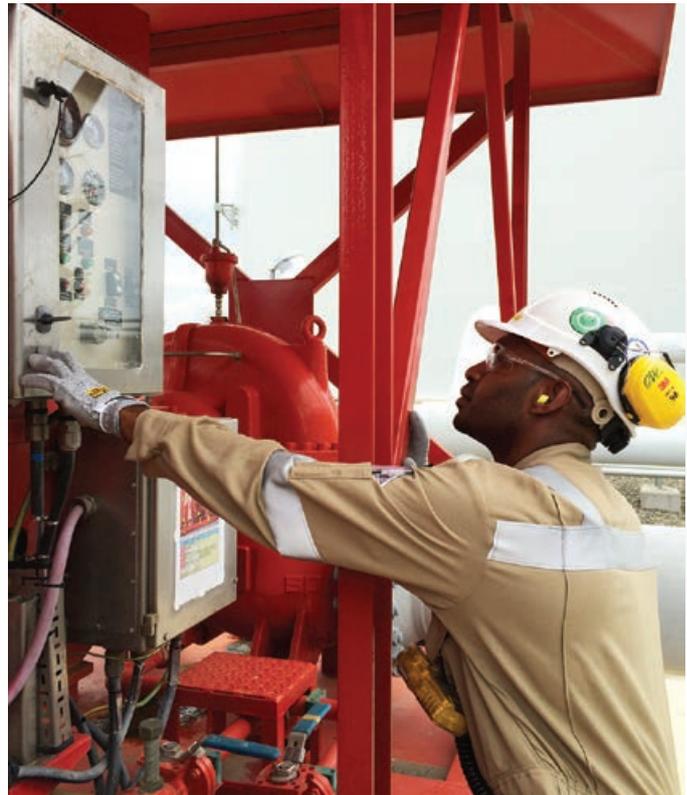
Rodney Camilus is also a Technician Level 1 from the first intake of Operations and Maintenance trainees who works at the LNG Plant with Esther.

“I’ve been chipping away at my assigned training and proving my competency for Technician Level 1, all the while maintaining safety as a priority. I have to admit, it was tough at times but that was more motivation to achieve Technician Level 1. As a Technician, there is more responsibility and higher expectations compared to a trainee, but I feel no extra pressure thanks to the training and mentoring I received from some of the best in the business.

“My tasks during one shift (either day or night) generally include routine surveillance, data collection and task execution, which involve performing isolations on equipment in preparation for maintenance. This is a critical part of my job as someone’s life depends on it. Therefore, there are several checks in place to prevent any mishaps. One of my main tasks is maintaining a safe working environment. So hazard identification, reporting and mitigation are vital in keeping everyone in my area safe.

“We also have a second intake of Operations and Maintenance trainees on our shift so I try my best to share whatever experience I have with them.

“Reaching Technician Level 1 has been a relief to me. I see it as a reward and recognition for the hard work, time and dedication I’ve put into my training and work, but I am fully aware that this is just the first step and there is still a long way to go depending on where I want to be. I know it requires a lot of work and discipline, but with all the avenues provided by the company, I know I will reach my ultimate goal, and I will do that one safe day at a time. Only I can set my own limits.”



*Rodney Camilus believes reaching Technician Level 1 at the LNG Plant is enabling him to achieve his career goals*

## Graduate training development program

EMPNG initially recruited 22 Papua New Guinean graduates in early 2010 and provided them with on-the-job training in engineering, project control, administration and finance roles in Australia, Singapore and Papua New Guinea. By the end of 2010, another two graduates were recruited as trainee drilling engineers. Many of these graduates have secured work with EMPNG and other companies associated with the PNG LNG Project.

For production, a further 16 graduates have been trained in roles including pipeline, corrosion, machinery and facilities surveillance engineering, with experience gained in both onshore and offshore facilities.



# THE SKY'S THE LIMIT FOR EMPNG TRAINEES



Graduate engineers from the first intake at the Longford Plants in Gippsland, Australia

Being able to start with an organisation like EMPNG sets a high platform for excellence. It also helps improve your professional and personal life by giving you exposure to different people, scenarios, challenges and training. For me, safety training has given me a greater appreciation of the value of life."



Alma Gaso, Machinery Engineer

Alma, a Machinery Engineer at the LNG Plant, said starting her career as a graduate was beneficial because of the opportunities and experience she gained. "The overall experience is amazing. There has been so much to learn and every day brings a new encounter. I like that especially because it challenges me to keep striving to do better. I'm certain my career will go a long way as EMPNG has a defined program

that will assist in kick-starting my career. Also, there are a lot of people from different cultural backgrounds who have numerous work experiences that I can learn from and use, not only for my career, but also so that I can be an asset to the company."



Graduate engineers from the second intake on the jetty at the Long Island Point Fractionation Plant, Victoria, Australia with Operations Superintendent Neil Wainwright (pictured centre)

In December 2014, Oliver Launu, Alma Gaso and Kenny Hampalekie joined EMPNG as full-time engineers after completing graduate training with the company.



Oliver Launu, Integrity Engineer

Oliver, who is employed at the LNG Plant as an Integrity Engineer, said he enjoyed meeting different colleagues from all over the world. "Working with EMPNG is in my opinion the best start for any engineering graduate to have a successful career. ExxonMobil operates to the highest world-class standards and takes pride across its safety, security, environment protection, work ethics, teamwork and excellence.



Kenny Hampalekie, Surveillance Engineer

Kenny is employed as Surveillance Engineer working at the LNG Plant. He said the graduate training enabled him to work with, and learn from, some of the most talented people in the oil and gas industry. It also gave him a good insight into the company's workplace culture. "The highlight of my experience as an EMPNG employee so far is meeting many people from different backgrounds and

learning about the whole Project, the people in it and how the company does business," Kenny said.

EMPNG has procedures in place to reduce potential impacts on areas surrounding production facilities.

7.1 Air

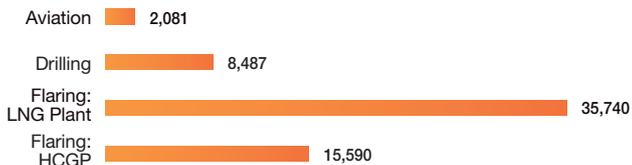
Dust impacts on air quality are decreasing as most earthworks have been completed, developed areas are re-vegetated and roads sealed. Water trucks are used occasionally during dry conditions to suppress dust. For example, the use of water trucks for dust suppression was required in the Hides area due to dry conditions in the fourth quarter.

An accredited stack testing consultant has been appointed to manage EMPNG’s stack emissions program. The consultant conducted a site inspection and made recommendations such as providing power sources for air sampling equipment, which were addressed by maintenance teams during this quarter. A schedule for stack sampling in 2015 was also developed.

Greenhouse gas emissions attributable to flaring were 15,590 tonnes of carbon dioxide equivalent at the HGCP, and 35,740 at the LNG Plant this quarter. LNG Plant greenhouse gas emissions decreased by more than 70 percent compared to the third quarter 2014. This reduction is due to the completion of commissioning activities and achieving steady state operations. Drilling generated 8,487 tonnes of carbon dioxide equivalent in the quarter, while aviation produced 2,081 tonnes, as shown in Figure 7.1. Total greenhouse gas emissions, including fuel gas use, are calculated and reported on an annual basis.

FIGURE 7.1

GREENHOUSE GAS EMISSIONS (TONNES OF CARBON DIOXIDE EQUIVALENT) DURING THE FOURTH QUARTER



7.2 Noise

Mitigation of noise associated with the fully operational facilities has been successful. However, three grievances were reported in early November related to noise from flaring during facility re-start activities.

EMPNG has conducted many engagements with local communities about flaring activities, although in response to these grievances the company conducted additional engagement sessions that enabled the grievances to be closed within the quarter. No further noise-related grievances were received.

7.3 Water

EMPNG primarily uses water for domestic purposes in worker camps, as well as for drilling wells and other activities such as dust control and vehicle washdown.

7.3.1 Usage

Freshwater for production use is mainly sourced from groundwater. During this quarter, approximately 83,600 kilolitres of fresh groundwater was extracted.

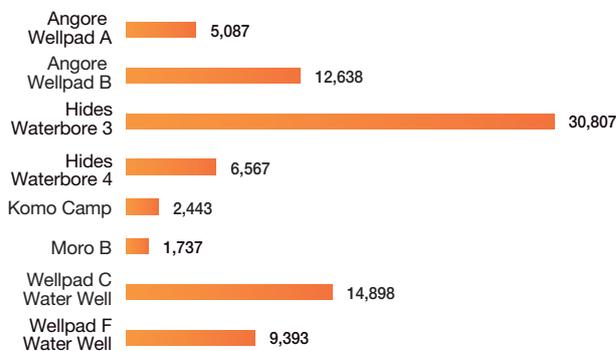
At the LNG Plant, 158,000 kilolitres of seawater was extracted to supply the desalination plant. This was used to generate almost 20,000 kilolitres of potable water.

One new permitted groundwater extraction point was established at Angore Wellpad B this quarter to support drilling activities.

Water extraction volumes across all EMPNG facilities continue to comply with the company’s permitted limits. Figure 7.2 shows water volumes from each extraction source this quarter.

FIGURE 7.2

VOLUME (KILOLITRES) OF FRESHWATER USED DURING THE FOURTH QUARTER BY EXTRACTION SOURCE



7.3.2 Quality

EMPNG conducts ongoing water quality monitoring to ensure conformance with the ESMP.

The company uses independent third party laboratories to analyse water samples, as well as site-based laboratories to monitor water quality parameters, and to assist in fine-tuning site management of surface water run-off prior to the water entering the surrounding environment. Results from monitoring activities this quarter showed that water quality criteria were within EMPNG’s nominated water quality guidelines for the effective management of marine and freshwater quality. However, three low-level non-conformances were reported.

The first non-conformance was at the LNG Plant retention pond where oil and grease levels and chemical oxygen demand were above criteria. Retention pond water was retained while investigations were conducted. Investigations found that a contractor had entered incorrect waste into the system. No direct impact was recorded in the off-site receiving environment where parameter levels remained well below EMPNG's criteria.

The second involved low levels of phenols detected during analysis of samples from the HGCP retention pond. EMPNG plans to meet with the Papua New Guinean Department of Environment and Conservation to seek clarity about the phenols parameter and to determine how improvements can be made to the testing methodology for phenols.

The third non-conformance related to elevated potassium levels measured in the Hides Waste Management Facility retention pond and an adjacent stream. An investigation found that the potassium levels could be reduced through slight modification to the vetiver reed bed system, which included recirculating the water through the reed beds and stimulating new reed growth to improve the uptake of potassium. As part of the investigation, additional sampling of the receiving water body showed all monitoring parameters were below criteria, and no impacts were observed to the receiving environment.

Following elevated levels of iron, cobalt and manganese recorded during monitoring at Hides in the third quarter 2014, subsequent investigation was undertaken and found that these elevated levels were characteristic of the natural groundwater environment and not associated with activities undertaken at the Hides Waste Management Facility.

Sampling of rivers in the Upstream area during this quarter found that all water quality results were within EMPNG's criteria. The Drilling team's insitu surface water quality monitoring also showed all levels to be within EMPNG's water quality criteria.

## 7.4 Materials management

EMPNG aims to reduce the use of raw materials; however aggregate from quarries is occasionally required for repair works, maintenance or special projects. This material is primarily sourced from existing third party quarry operations.

In the Upstream area, approximately 1,620 cubic metres of limestone was sourced from Wellpad C and sidcasted material from Wellpad E for works including: repairs to site roads at the HGCP; erosion management at Komu; and backfill around foundations supporting the water injection flowlines for the produced water disposal well. In addition, 852 cubic metres of sand and gravel were purchased from third party suppliers for concrete works.

Most timber used during this quarter was recycled from construction demobilisation waste resulting in only 7 cubic metres of processed timber being purchased from third party suppliers.

During this quarter, updates on EMPNG's raw materials management commitments were presented to production workers during toolbox talks and through posters displayed at all EMPNG facilities.

**ISSUE 130**  
NOVEMBER 2014

**SSH&E Alert!**

**PNG LNG**

**RAW MATERIALS MANAGEMENT:**  
PROCURING AGGREGATE FROM QUARRIES/BORROW PITS

**Environment Management Plan Objective:**  
Avoid significant impacts associated with the procurement and use of raw materials

Quarry Scenario	Volume extracted triggers Permit requirements? *	Minimum Quarry Management Expectations	EMPA Environment (Prescribed Activities) Regulation 2002: Measurement permit required for:
1. Impact Quarry – supplies only the Project and adjacent to EMPNG Contractor (or subcontractor to EMPNG Contractor)	EMPNG Env. Permit volume extracted	Recent Conditionally Approved (CCA) design/assessment • EMPNG design/assessment • Environmental Plan to be prepared and approved • Clear cut Permit required	• Quarrying involving the extraction of more than 200,000 tonnes/year • Measurement permit required for: • Quarrying involving the extraction of more than 20,000 tonnes/year
2. Third party Quarry (contracted, EMPNG is not their sole customer (Quarries, Private Business))	No Yes Third party Env. Permit	As part of procuring material, EMPNG must ensure: • Environmental Plan to be prepared and approved • Recent design/assessment • Clear cut Permit required	• Quarrying involving the extraction of more than 20,000 tonnes/year
3. Third party Quarry (contracted, EMPNG is not their sole customer (Quarries, Private Business))	No Yes EMPNG Env. Permit design/assessment Returns Step 1**	As part of procuring material, EMPNG must ensure: • Environmental Plan to be prepared and approved • Recent design/assessment • Clear cut Permit required	• Quarrying involving the extraction of more than 20,000 tonnes/year
4. Third party Quarry (contracted, EMPNG is not their sole customer (Quarries, Private Business))	No Yes Third party Env. Permit	As part of procuring material, EMPNG must ensure: • Environmental Plan to be prepared and approved • Recent design/assessment • Clear cut Permit required	• Quarrying involving the extraction of more than 20,000 tonnes/year

**ADDITIONAL INFORMATION THAT YOU NEED TO KNOW:**

**SCENARIO 1:** These quarries (owned by EMPNG or directly or indirectly by EMPNG) are permitted under the existing Environment Permit and additional permits are not necessary. Conditions and commitments under EMPNG's Environmental Permit and CCA apply. The site is considered to be a "Project quarry" and an overarching Quarry Development Plan shall be prepared to reduce the potential for non-compliance situations to develop over the life of the quarry. If the quarry is a "greenfield" site then a pre-construction quarry (PCS) is necessary. If the site is a "brownfield" site and the existing pre-constructed design is not extended, then a PCS is recommended for due diligence purposes only. The PCS for a "brownfield" site should be designed to collect the following minimal information:

- Record the extent of the existing pre-constructed footprint using photographs and GPS imagery
- Record and then mitigate any cultural heritage and archaeological sites that are known to occur in the area within 200m
- Baseline noise survey
- Determine the presence of adjacent waterways and collect baseline water quality data
- Record the location of nearby residents and evaluate potential for vibration and noise disturbance as per our V&P

**IMPORTANT: THE PNG LNG ENVIRONMENTAL PERMIT DOES NOT ALLOW THE ESTABLISHMENT OF QUARRIES ON HIDE'S RANGE, OR QUARRYING OF MATERIAL FROM RIVER BEDS, FLOOD PLAINS OR EPHEMERAL STREAMS.**

**SCENARIO 2:** Aggregate and quarry material purchased from Third Party suppliers before EMPNG is not their sole customer will be sourced from legal quarries that are in possession of permits where necessary.

**SCENARIOS 1 & 4:** Aggregate and quarry material purchased from Third Party suppliers who either operates an abandoned quarry (Scenario 2) or develops a new quarry (Scenario 4), away from EMPNG, then the following considerations are required:

- Third Party is to be in possession of all necessary permits. Alternatively, EMPNG can decide to operate the quarry under the PNG LNG Environmental Permit & EMP.
- If the Third Party obtains their own permit, EMPNG to provide Third Party an outline of EMPNG's DMC expectations as it applies to operating a quarry (Management through influence) which is to be included into T&Cs of the contract.
- If quarry will operate under EMPNG Environment Permit (only quarry considered when being/whenever processes occur), then the quarry is classified as a "Project quarry" and requirements of Scenario 1 applies.

\*Due to IFC Performance Standard 3, EMPNG have obligations for sites facilities that are developed/operated by Third Parties, whereby EMPNG is their sole customer.

**ExxonMobil**      Direct any further queries to: Julie McDowell, Environment Advisor, Julie.McDowell@png.com.pg      **It's about people**

Poster outlining EMPNG's raw materials management commitments

## 7.5 Spill prevention and response

EMPNG maintains plans and dedicates equipment, personnel resources, and workforce training and drills to reduce the likelihood and consequences of emergency situations. This includes hydrocarbon spill prevention and response.

During this quarter, EMPNG recorded five low-level incidents involving four hydrocarbon spills to ground and one release of LNG to air. Three of the hydrocarbon spills were 1 litre or less and the fourth was 30 litres. One near miss incident was also recorded for a condensate leak that was contained within a sealed bunded area.

The Drilling team reported six near misses incidents. Three of these related to drilling fluid spills to contained areas, two regarded cement and water spills and one spill was a non-harmful substance that was used as a shale stabiliser.

To reinforce the PNG LNG Project's 'no spill' culture, 26 spill response drills were conducted across worksites during this quarter. They covered scenarios such as a condensate spill, chemical leak and diesel release.

Some scenarios were enacted as desktop exercises, while others involved field-based discussions, full equipment deployment, and practical execution of spill response methods.

## 7.6 Waste management

EMPNG follows waste reduction, reuse and recycling protocols wherever practicable. In situations where waste cannot be reused, a waste management hierarchy is applied for waste disposal and management at approved facilities.

### 7.6.1 Solid waste

EMPNG continues to implement waste reuse initiatives at its facilities. Approved third party facilities are also used to recycle some production waste. During this quarter, EMPNG donated more than 100 tyres, each measuring 1.7 metres in diameter and weighing 40 kilograms, to the PNG Ports Corporation Limited for reuse as wharf fenders. Additionally, 19 cubic metres of lead-acid batteries that were previously stored in Kopeanda, along with 32,300 litres of waste drilling oil, were sent to approved recycling facilities in Lae.



**One truckload of tyres being loaded for delivery to PNG Ports Corporation Limited for re-purposing**

As part of the final clean up from demobilisation of PNG LNG Project construction sites, surplus chemicals, including new unopened chemicals, were collected from the HGCP and delivered to suppliers in Lae for resale.

New colour-coded waste bins were deployed across Komo and the HGCP this quarter to enhance waste segregation efforts at these locations. The colour-coded bins have already been successfully implemented at the LNG Plant.

EMPNG began using the Kopeanda high temperature incinerator for liquid waste disposal during the quarter. By the end of December, 23,600 litres of waste oil was incinerated. The use of the incinerator is enabling the processing of waste oil from construction a few months earlier than previously planned. The high temperature incinerator also continued to be used to dispose of putrescible wastes from camp operations and oily rags, filters and paints.

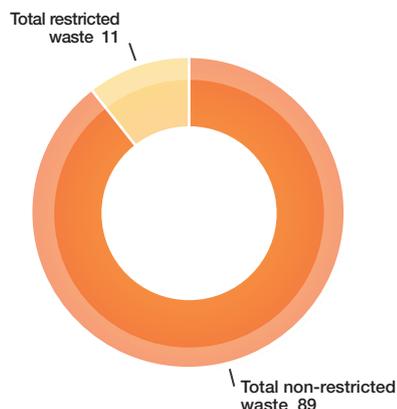
The incinerator is fitted with emission control filters and an emissions monitoring system. Monitoring conducted this quarter found that the incinerator was complying with EMPNG's air emissions criteria.



**Colour-coded waste segregation bins in use at the HGCP**

Landfill cells at the Hides Waste Management Facility are being used for the disposal of construction demobilisation wastes. The Hides Waste Management Facility is also receiving treated drill cuttings and solid waste from drilling operations, food waste, and general accommodation/ office waste. Most of the waste produced this quarter was classified as non-restricted, as shown in Figure 7.3.

**FIGURE 7.3**  
PERCENTAGE OF WASTE GENERATED DURING THE FOURTH QUARTER BY CLASSIFICATION

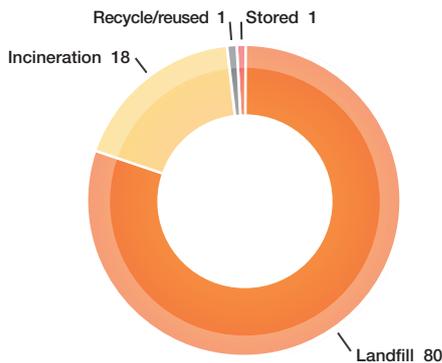


As part of its reuse initiatives, EMPNG is using processed drill cuttings as cover material at the Hides landfill. This enables effective reuse of the drill cuttings, while providing a protective layer over the base of landfill cells prior to any new waste placement and compaction. More than 1,500 cubic metres of treated drill cuttings were reused as landfill cover during this quarter.

Food waste and sludge from wastewater treatment plants were the predominant waste sources at the LNG Plant in the fourth quarter. Figure 7.4 shows the total solid waste by disposal method.

**FIGURE 7.4**

PERCENTAGE OF WASTE GENERATED DURING THE FOURTH QUARTER BY DISPOSAL METHOD



The Permanent Facilities Compound construction contractor is managing waste in accordance with the site waste management hierarchy. Combustible wastes are incinerated in the worksite incinerator when practicable and remaining waste from construction activities is sent to landfill at the LNG Plant site. Two of the five landfill cells at the LNG Plant site have been prepared for capping, which will be completed in early 2015. Other cells have adequate capacity to take remaining construction, demobilisation and production wastes.

### 7.6.2 Wastewater

The operation of wastewater treatment plants requires continual monitoring and maintenance to adjust systems so they can effectively accommodate variations in camp populations and volumes of wastewater to be treated. Throughout EMPNG facilities, specialised resources are dedicated to the management of these plants.

Regular de-sludging of wastewater treatment plants continues at the LNG Plant, along with ongoing monitoring of wastewater operations. During this quarter, operational monitoring of permanent wastewater treatment plants identified a design fault in one aeration chamber that reduced the treatment capacity of one unit. The fault was investigated and a request for modification of the unit has been made. Treated water flows from the plant to a retention pond where it is regularly monitored to ensure compliance with EMPNG's water quality criteria prior to discharge.

A temporary wastewater treatment plant is treating effluent at the HGCP main worker camp until the population of the camp reduces to meet the design specifications of the permanent wastewater treatment facility, which is commissioned and on standby. One temporary treatment plant was decommissioned in the quarter, following the demobilisation of one of the temporary HGCP construction camps.

Upstream production camps have temporary wastewater treatment plants that are regularly monitored. During this quarter, monitoring showed that these treatment plants were between 72 and 88 percent of operational compliance, with five low-level incidents recorded. Parameters reported to be above EMPNG's wastewater criteria are being investigated and system modifications and follow-up is ongoing. Work continues on improving wastewater treatment plant performance, for example the treatment plant at Komo Airport was decommissioned this quarter because the population using it was too small for its size.

Wastewater treatment plants for drilling operations are also regularly monitored. In the fourth quarter, monitoring showed that the treatment plants did not consistently perform at optimum performance, however monitored parameters in the receiving waters remained within criteria and there were no observable adverse impacts to the surrounding environment.

### 7.7 Reinstatement, erosion and sediment control

Ground and aerial inspections are used to monitor the effectiveness of erosion and sediment control measures in locations near EMPNG facilities. Specialist teams manage the repair and augmentation of these control measures as required.

During this quarter, regular maintenance works were conducted for erosion control along the pipeline ROW at Homa Ridge, and Kilometre Points 104, 100 and 81.

Maintenance works were also conducted at Komo Airfield, with earthworks in the northwest (Phase 1) completed and earthworks in the southern portion of the site (Phase 2) commencing.

In addition to regular monitoring conducted by EMPNG, local communities have agreed to notify the company of erosion issues along the pipeline ROW as part of Clan ROW Maintenance Agreements. Under these Agreements, clans are helping EMPNG monitor vegetation and erosion along the ROW. They also report the presence of unauthorised vehicles and structures on reinstated sites.

An independent third party consultant completed the second 2014 bi-annual reinstatement audit this quarter. Audit results confirmed that drainage lines appeared stable and water quality was high in areas around EMPNG facilities. The drainage lines have returned riverbed surfaces to a level where upstream and downstream migration appears to be unhindered for both vertebrates and aquatic invertebrates. The progress of reinstatement and recovery varies by location, with altitude being a dominant factor.

Between Omati and Kilometre Point 120, reinstatement has been successful with generally 75 to 95 percent vegetation cover.



***ROW at Kilometre Point 190 in April 2013, six months after initial reinstatement***



***Kilometre Point 190 two years after site reinstatement showing the progress of native vegetation succession***

Between Kilometre Point 120 to Hides recovery is noticeably slower due to factors such as a longer and more intense disturbance history, steep topography and a higher incidence of cloudy days. This has resulted in 25 to 50 percent vegetation cover. Despite slower regeneration in this area, the audit found that regeneration of Antarctic Beech *Nothofagus pullei* was recorded for the first time along Hides Ridge, with a small number of seedlings observed beneath a mature tree.

Environmental mitigation measures are being applied during production to preserve Papua New Guinea's biodiversity.

## 8.1 Biodiversity Strategy

The Biodiversity Strategy is implemented through the Biodiversity Offset Delivery Plan and the Biodiversity Monitoring Plan, which are intended to preserve biodiversity values in areas near production facilities.

### 8.1.1 Biodiversity Offset Delivery Plan

EMPNG is progressing implementation of the Biodiversity Offset Delivery Plan and continues to support Wildlife Management Area Committees with initiatives to preserve known protected areas such as the Lake Kutubu Wildlife Management Area.

### 8.1.2 Monitoring

An initial post-construction biodiversity assessment was completed in the fourth quarter. Findings from this analysis will be reported in EMPNG's Environmental and Social Reports during 2015.

Post-construction assessments of the Upstream area are progressing. These assessments are required as part of the Biodiversity Monitoring Plan. They aim to regularly evaluate the condition of known biodiversity values in areas surrounding EMPNG facilities.

A remote sensing analysis of 2009 imagery of EMPNG sites and a report on the forest condition before construction was completed and submitted for management review this quarter. An analysis of 2011 and 2013 remote sensing imagery to evaluate forest conditions is progressing, with a finalised report expected in 2015.

Preparations continue for further in-field biodiversity surveys to collect flora and fauna data in the Upstream area. These in-field surveys are scheduled to begin in 2015, with the data collected to help evaluate the effectiveness of ecological management activities.

Results from the 2014 post-construction freshwater ecology monitoring indicate the river systems have recovered from any short-term impacts caused by construction of the pipeline. For example, the diversity of macro-invertebrates, which is an indicator of watercourse condition, and levels of sedimentation in the Timalia River downstream of the HGCP, indicate these systems have recovered from construction activities. Akara Creek, which is located near the HGCP, continues to be monitored following a landslide that occurred in 2011 and as expected, signs of recovery are gradually appearing.

Samples from some watercourses downstream of the Komo Airfield are also showing a return towards pre-construction levels with regard to factors such as sedimentation and the diversity of freshwater aquatic communities.

## 8.2 Ecological management

EMPNG is monitoring two Sandalwood *Santalum macgregorii* trees at the LNG Plant site, which were initially identified in the PNG LNG Project Environmental Impact Statement and are listed as endangered by the International Union for Conservation of Nature. During this quarter, both trees were observed to have flowers and seeds. A seed catcher has been installed to collect seeds from the trees so they can be propagated.

Mangrove regeneration is progressing at the LNG Plant landfall site, with the establishment of Stilted Mangrove *Rhizophora stylosa* on the seaward side of the pipeline ROW and Grey Mangrove *Avicennia marina* on the leeward side.



**Mangrove regeneration at the LNG Plant landfall site**



**Seed catcher to trap seeds from Sandalwood at the LNG Plant site**

Substantial flowering of *Nothofagus* sp. was discovered in an Upstream forest area this quarter, with seedlings found on the pipeline ROW at Hides Ridge. Flowering of *Nothofagus* sp. is sporadic and unpredictable so this event was a positive ecological indicator as the establishment of seedlings on the ROW was not expected to occur so soon after reinstatement.



*Nothofagus* sp. seedling



Flowering *Nothofagus* sp.



*Nothofagus* sp. germinating seed

### 8.3 Quarantine management

EMPNG has appointed the freight contractor DHL Global Forwarding to consolidate cargo at global hubs that will improve efficiencies with sending cargo to Papua New Guinea.

The contractor will be responsible for loading sea freight containers and ensuring National Agriculture Quarantine and Inspection Authority procedures are followed. Customs and freight forwarding training, which includes National Agriculture Quarantine and Inspection Authority quarantine procedures, was provided to production workers involved in cargo operations.

The increased use of ship freight is reducing the need for airfreight to import machinery, spare parts and associated equipment for production operations.

During this quarter, 476 EMPNG shipments arrived in Papua New Guinea. In accordance with National Agriculture Quarantine and Inspection Authority procedures, 32 EMPNG cargoes were inspected, with only two requiring refumigation.

### 8.4 Weed, plant pathogen and pest management

The second weed audit for 2014 was completed in the quarter. This is the sixth independent weed audit for the PNG LNG Project. Results from the audit show that the diversity of weed species remains unchanged compared to previous audits. The abundance of weeds has declined at most EMPNG sites as a result of effective weed management, stabilisation of disturbed sites and natural regeneration.

Two known Priority 1 weed species were identified at new locations – the Priority 1 weed Anglestem Willow Primrose *Ludwigia leptocarpa* was found on the Homa-Paua Road, while Japanese Sunflower *Tithonia diversifolia* was identified in a garden near the Mubi River Bridge. Subsequent monitoring also found Spiked Pepper *Piper aduncum* along the Hides Wellpad Access Road.

EMPNG is implementing ongoing weed identification, monitoring and treatment to control these weeds through either the application of herbicide or manual removal by hand as appropriate.

During this quarter, Papua New Guinea's National Herbarium and the Queensland Herbarium reclassified five weed species as naturalised or native to Papua New Guinea. These species are Couch Grass *Cynodon dactylon*, a Sedge species *Cyperus distans*, Large Crab Grass *Digitaria setigera*, Forked Rush *Fimbristylis dichotoma*, and Crab Grass *Ischaemum polystachyum*.

Previously classified as Priority 3 weeds, they have now been removed from EMPNG's weed register, bringing the total number of Priority 3 weeds identified in the areas surrounding production facilities down from 111 to 106.

Weed awareness training was delivered to 120 security workers at the HGCP this quarter. The training focused on Priority 1 weeds recorded near EMPNG facilities at high elevations.

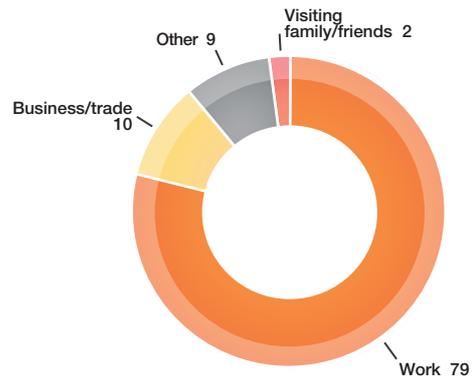
Colourful Priority 1 weeds are sometimes used by Papua New Guinean people for personal and property decoration. Therefore, this training is providing security personnel with the ability to identify these high priority weed species and reduce the risk of Hides area workers bringing them onto the HGCP site.

### 8.5 Access control

Monitoring the public use of EMPNG-controlled roads continued in the quarter. The company has introduced an access control system where data is collected from manned gates and collated into a database to enable analysis of the types of vehicles entering controlled areas. The database registered 759 vehicles that used EMPNG controlled roads this quarter.

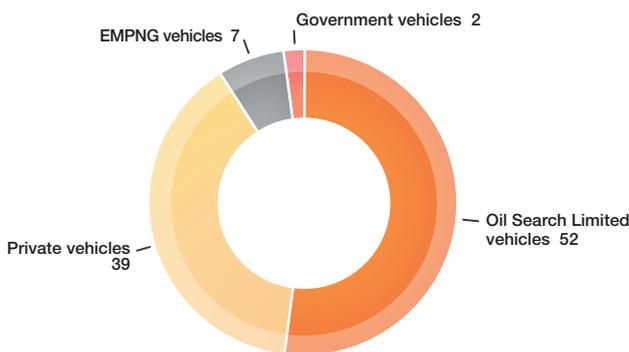
Figure 8.1 shows the types of vehicles that used EMPNG access points, while Figure 8.2 outlines the reasons for the access. No new access roads were constructed in the quarter.

**FIGURE 8.2**  
PERCENTAGE OF TRAFFIC USING EMPNG CONTROLLED ROADS DURING THE FOURTH QUARTER BY PURPOSE



Security checkpoints and site identification cards for workers continue to be used to control access to the Hides Wellpad Access Road.

**FIGURE 8.1**  
PERCENTAGE OF VEHICLE TYPES USING EMPNG ACCESS POINTS DURING THE FOURTH QUARTER



EMPNG assesses the effectiveness of its ESMP through monitoring and evaluation tools such as system assessments, site inspections, surveys, sampling and measurement.

These tools also enable the company to determine whether mitigation measures designed to manage risks and impacts are achieving the intended outcomes.

9.1 Incidents

EMPNG's incident management system defines the requirements for managing incidents, including near misses. An incident is a situation that has an unintended impact on a person's safety, security, health or livelihood, or an impact on property, the environment, or legal/regulatory compliance. EMPNG investigates the causes of incidents, including near misses, and implements corrective actions to reduce the likelihood of reoccurrence. A Severity Level of <0, 0, 1, 2, or 3 is assigned to incidents, where <0 has no significant impact and Severity Level 2 or 3 require notification to the IESC or designated government authorities.

During the fourth quarter, EMPNG recorded 13 environmental incidents, all classified Severity Level <0, and one near miss. All of these incidents were addressed within the quarter.

The Drilling team also reported six environmental near miss incidents in the quarter.

None of the incidents and near misses recorded resulted in significant impacts to the environment.

No Severity Level 2 or 3 incidents, requiring notification to the IESC or designated government authorities, occurred during this quarter. Figure 9.1 shows the incidents and near misses recorded by Severity Level this quarter.

9.2 Monitoring and evaluation

EMPNG uses Exxon Mobil Corporation's Operations Integrity Management System framework to monitor, verify and assess the company's conformance with Production ESMP environmental and social commitments. The System is also used to confirm that recognised risks are mitigated, and to ensure intended outcomes are achieved. The level of risk involved in an activity determines the type, extent and frequency of monitoring and evaluation.

The production verification program, which began in the third quarter 2014, continued this quarter. Field environmental specialists inspected worksites, conducted field observations, and conducted water discharge, air and noise monitoring in accordance with company environmental protocols.

Situations detected that do not meet ESMP requirements are considered a non-conformance. EMPNG uses three Severity Levels to classify a non-conformance. The levels range from Severity Level I, involving no damage or reasonable expectation of damage, to Severity Level III requiring expeditious corrective actions. Examples of good environmental practices are also recorded as positive field observations.

9.3 Results

Twenty-six field observations, including four positive field observations, were recorded for EMPNG facilities during this quarter. Of these, 23 percent related to erosion and sediment control management on the pipeline ROW, and were addressed by the Pipeline Integrity team. By the end of the quarter 62 percent of field observations were closed, with work progressing to close the remaining field observations.

Three Severity Level I environmental non-conformances were recorded this quarter, as shown in Figure 9.2.

FIGURE 9.1

NUMBER OF INCIDENTS DURING THE FOURTH QUARTER BY SEVERITY LEVEL

- Severity Level 3
- Severity Level 2
- Severity Level 1
- Severity Level 0
- Severity Level <0
- Near Miss

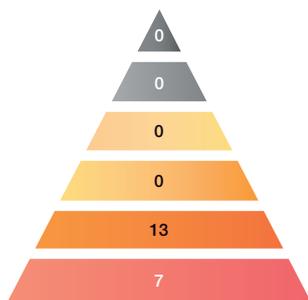
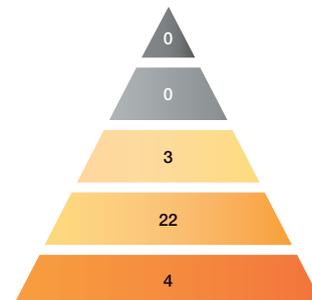


FIGURE 9.2

NUMBER OF NON-CONFORMANCES AND FIELD OBSERVATIONS DURING THE FOURTH QUARTER BY SEVERITY LEVEL

- Severity Level III
- Severity Level II
- Severity Level I
- Field Observation
- Positive Field Observation



These non-conformances were also recorded as Severity Level <0 incidents because they did not result in damage to the environment. Corrective actions were developed and implemented for the non-conformances.

Details of field-based environmental monitoring programs are covered in *Chapter 7 – Environmental Management*.

## 9.4 External monitoring

The IESC conducts periodic reviews of EMPNG activities to determine whether the company is complying with the social and environmental mitigation measures outlined in the Production ESMP. Findings from the IESC's October review have been published on the PNG LNG Project website.



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The IESC will conduct its next review in May 2015.

Engagement continues with Papua New Guinean communities to keep them informed of production and drilling activities and to build on the trust, collaboration and mutual understanding that was developed during the PNG LNG Project construction phase.

### 10.1 Communities

In the fourth quarter, the level of engagement with communities remained high, with more than 14,350 attendees from 160 communities participating in some 730 formal community engagements and 1,430 informal engagements.

During these engagements, clans involved in caretaking activities along the pipeline ROW were given information about caretaking strategies, and Clan ROW Maintenance Agreements were signed with participating clans.

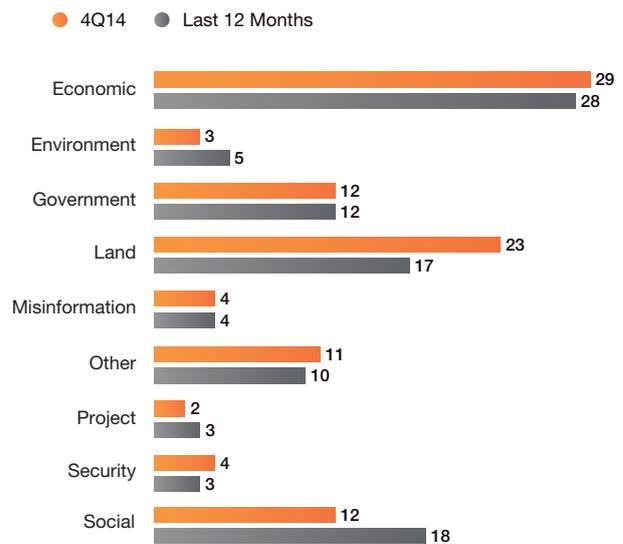
LNG Plant site villages were also provided with information about flaring activities and ballast water management during shipping operations. The information explained what was involved in flaring operations and addressed community concerns with regard to emissions and environmental impacts.

#### 10.1.1 Issues identification

Economic concerns represented 29 percent of all issues raised in the quarter, with most regarding employment and business opportunities with EMPNG. Economic issues remain the highest area of concern, as shown in Figure 10.1. However, positive feedback was also received about EMPNG's community investment program.

**FIGURE 10.1**

PERCENTAGE OF ISSUES RECEIVED BY ISSUE CATEGORY



Land concerns comprised over 23 percent of issues raised and primarily regarded land access agreements and compensation payments.

Government issues, representing 12 percent, generally related to royalty payments from EMPNG revenues and the clan vetting process. These issues were forwarded to the Department of Petroleum and Energy for resolution.

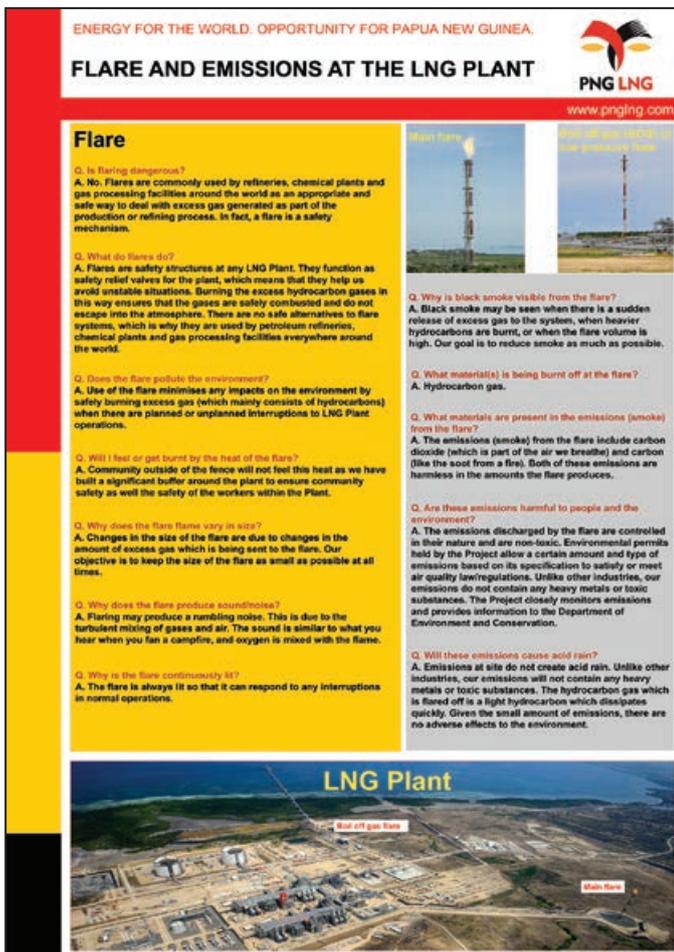
Social aspects also represented 12 percent of total issues raised, with many being positive comments from community members who participated in EMPNG community education sessions.

### 10.2 Government

EMPNG maintains ongoing engagement with national, provincial and district government representatives to keep them informed about production progress.

#### 10.2.1 Infrastructure and government support

Preparation for installation of a new bridge across the Benaria River, funded by the Hela Provincial Government and EMPNG, commenced during this quarter.



Awareness poster focused on flaring activities at the LNG Plant

In addition to funding support, EMPNG has provided the Government with engineering advice regarding the scope and cost of the bridge construction.

EMPNG is also providing engineering advice and funding support to the Department of Works for emergency repairs to sections of the Highlands Highway that were damaged by heavy rainfall this quarter.

### 10.2.2 Advocacy

The EMPNG 2014 advocacy program concluded in December, with almost 100 dignitaries participating in more than ten advocacy workshops during this quarter. Since the start of 2014, EMPNG has hosted some 900 officials from government departments, foreign embassies and the media in more than 40 workshops. To date, over 1,000 advocacy workshops have been conducted, involving more than 6,000 government and media representatives.



**A group of Papua New Guineans from the Rotary Youth Leadership Awards 2014 during a visit to the LNG Plant site**

### 10.2.3 Benefits assurance delivery

Royalty payments for PNG LNG Project area landowners are being held in a Department of Petroleum and Energy trust account with the Bank of Papua New Guinea until the Department completes the clan vetting process. This work is expected to be completed during 2015.

EMPNG is working with the Department on the payment process for the Development Levy, which is payable annually in accordance with requirements of the *Oil and Gas Act 1998*. The levy is equivalent to 2 percent of the wellhead value and is payable to the provincial governments and local-level governments to support local infrastructure development.

### 10.2.4 Revenue management

Papua New Guinea's Treasurer, the Honourable Patrick Pruaitch, presented the national budget in November, stating that 2015 is expected to be the country's fourteenth consecutive year of growth.

Gross Domestic Product growth for 2015 is forecast to be 15.5 percent because of revenues derived from EMPNG production. The Treasurer has forecast that, from 2016, Gross Domestic Product will drop to 2.3 to 5 percent growth.

Meanwhile, the Papua New Guinean Government published a Sovereign Wealth Fund gazettal notice in October. The notice indicated that all mining and petroleum taxes would be deposited into the Fund from 2016.

During this quarter, Papua New Guinea's Department of Treasury progressed the recruitment process for the head of the country's Extractive Industries Transparency Initiative (EITI) National Secretariat. This role oversees the activities of the National Secretariat, which, once formed, will be tasked with day-to-day implementation and coordination of EITI activities in Papua New Guinea. The World Bank-funded EITI scoping study team continues to collect and collate fiscal data from various government agencies for the study.

The EITI is a voluntary initiative to improve governance in resource-rich countries through the disclosure and verification of company payments and government revenues from oil, gas and mining projects. Papua New Guinea was officially accepted as a candidate country by the EITI Secretariat in Oslo, Norway, on 19 March 2014. EMPNG is among 21 members of Papua New Guinea's EITI multi-stakeholder group. ExxonMobil has served continuously on the EITI board since its inception in 2002.

### 10.3 Media

The final edition of *PNG LNG Toktok*, a quarterly pictorial four-page newsletter featuring stories from local communities, was published as an insert in national daily and weekly newspapers this quarter. The newsletter focused on some of EMPNG's environmental programs in Papua New Guinea. It will be replaced with a new newsletter in 2015.

The PNG LNG Project was prominently showcased at the thirteenth Mining and Petroleum Investment conference held in Sydney, Australia in December. The three-day conference attracted more than 1,400 participants. EMPNG Managing Director, Peter Graham, presented a speech about the Project's transition from construction to production. Key health programs were also highlighted at the conference.

An EMPNG workshop and LNG Plant site tour were held during this quarter for local media to discuss the current status of production with EMPNG executives. At the end of the quarter, EMPNG hosted a media *bung* or 'gathering' where the company's executives mingled with media representatives and EMPNG suppliers. During the *bung* Peter Graham introduced his successor, Andrew Barry.

Peter Graham's November newspaper column *Yumi Stori long PNG LNG*, meaning 'let's talk about PNG LNG', discussed the importance of partnerships, especially for the provision of health care in Papua New Guinea.

The column was written in honour of non-government organisations – such as the Papua New Guinea Tribal Foundation, and Project C.U.R.E. – that have worked with EMPNG and the government to improve health care capacity in Papua New Guinea.

The October *Yumi Stori long PNG LNG* column focused on the importance of training Papua New Guineans to maintain EMPNG facilities over the next 30 years. *Yumi Stori long PNG LNG* is published in the *Post Courier*, *The National* and *Wantok Nius* newspapers.

The nineteenth PNG LNG Quarterly Environmental and Social Report, which covered production activities in the third quarter 2014, was published on the PNG LNG Project website.



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The Report's Executive Summary was also published in Tok Pisin. Printed copies of the Report were made available to stakeholders with limited access to the internet.



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## ACRONYMS

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AIDS	Acquired Immunodeficiency Syndrome
EITI	Extractive Industries Transparency Initiative
EMPNG	ExxonMobil PNG Limited
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
PIIM	Project Induced In-Migration
PNG	Papua New Guinea
ROW	Right of Way

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