PNG LNG Quarterly Environmental and Social Report

Third Quarter 2010

PNG LNG

Energy for the World. Opportunity for Papua New Guinea.

PNG LNG

About This Report

Papua New Guinea Liquefied Natural Gas Quarterly Environmental and Social Report – Third Quarter 2010, provides updated reporting on the Project's construction, safety, health, environment and social management activities.

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

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

NOTE: While this Report uses US English, document titles, institutions and legislation use exact titles which may include variations of English, depending on the country of origin.

Exxon Mobil Corporation has numerous affiliates, with many names that include ExxonMobil, Exxon, Mobil, and Esso. For convenience and simplicity, those terms and terms such as Corporation, Company, our, we, and its, are sometimes used as abbreviated references to specific affiliates or affiliate groups.

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Working Together

"By engaging with the citizens of Papua New Guinea as neighbors, and community development partners we can ensure that the PNG LNG Project results in sustainable improvements and economic growth for the nation".

Peter Graham, Managing Director, Esso Highlands Limited

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

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

The Project has completed its third quarter of a four-year construction period. Key activities this quarter (July to September, 2010) included further development of the Environmental and Social Management Plan (ESMP) to incorporate additional environmental monitoring requirements as well as lessons learned from field programs. The revised ESMP was submitted to the Lender Group and to the Department of Environment and Conservation (DEC), Papua New Guinean Government in August. The DEC issued an interim approval of the Plan in September, and the ESMP will be publically disclosed on www.pnglng.com.

Another significant activity during this quarter was the release of the first report issued by the Independent Environmental and Social Consultant (IESC) following their site visit in May, 2010. The IESC is an independent auditor group working on behalf of the Lender Group. The purpose of the visit was to monitor compliance with Project environmental and social commitments made during Project development. The IESC recognized the Project's commitment to avoiding adverse social, environmental, health and safety impacts that could be caused by Project activities. Non-conformances were reported in relation to the milestone schedule, waste management and resettlement. The Project is using these findings to identify appropriate actions.

As part of its continuous and transparent flow of information to elected Papua New Guinean officials, the Project Management Team provided a Project update to the Papua New Guinean Cabinet's Ministerial Committee on the Economic Sector in August. It is expected that these reviews will be conducted several times each year.

Bi-monthly meetings continue to be held with key Government agencies and contractors to manage the effective and efficient mobilization of Project labor into Papua New Guinea. A major initiative adopted by the Government during this quarter will enable Papua New Guinean consulates to accept bulk packages of Work Residential Employment visa applications from offshore locations such as Manila, Kuala Lumpur, Beijing and Brisbane. This process will facilitate visa processing for expatriate workers employed by the Project.

Construction

Third quarter construction activities continued to focus on improving and upgrading infrastructure including roads and bridgeworks, telecommunications and the installation of pioneer and construction camps. A major milestone was the completion of two wharves at Kopi that will be used to receive the line pipe for the construction of the gas and condensate pipelines. In addition, the first load of finished line pipe arrived in Port Moresby in September.

Other highlights were; the completion, commissioning and handover to the contractor of the 800 person Pioneer Camp at the LNG plant site, and land clearing and earthworks activities commencing at the Hides Gas Conditioning Plant (HGCP) site. Table 1 provides an overview of all work that was undertaken.

Offloading of first line pipe delivery

Table 1 – Contracts and main construction activities

Contract	Contractor	Major Activities During the Third Quarter 2010
Upstream Infrastructure (C1)	Clough Curtain Brothers Joint Venture	The completion of two wharves at Kopi and the associated laydown area. Site clearing and earthworks activities at the HGCP site.
	Telecommunications (EPC1) – TransTel Engineering	Completion of a permanent communication facility at the LNG plant site, establishing voice and data services at the LNG plant site Pioneer Camp.
LNG Plant Early Works (C2)	Curtain Brothers Papua New Guinea Limited	LNG plant site Bypass Road and fencing completed. Papa and Lea Lea Road upgrades progressed.
Offshore Pipeline (EPC2)	Saipem	Manufacture of 190 kilometers (118 miles) of line pipe, of which 100 kilometers (62 miles) is complete with internal coating and concrete weight coating.
LNG Plant and Marine Facilities (EPC3)	Chiyoda and JGC Corporation	Site preparation works commenced. Jetty subcontract awarded.
Hides Gas Production Facilities and Hides Wellpads (EPC4)	CBI Clough Joint Venture	Detailed engineering, procurement and planning progressed at the contractor's main project offices in Singapore and Brisbane.
Onshore Pipelines and Infrastructure (EPC5A)	SpieCapag	Clearing activities commenced for the main pipeline route, with the resulting timber used primarily for temporary camp construction. The first load of finished line pipe arrived in Port Moresby. The contractor's Shore Base Camp at Kopi became operational. Work began on the access road to Kopi Scraper Station.
Komo Airfield (EPC5B)	McConnell Dowell and Consolidated Contractor Group Offshore	Clearing of the runway centerline completed. Clearing for camp areas and fencing of the Komo Airfield site began.

Contract	Contractor	Major Activities During the Third Quarter 2010
Oil Search Limited Associated Gas Development	Aker Solutions	Completed detailed Hazard and Operability Study and model reviews for the Associated Gas scope. Design review plans were finalized for the new offloading buoy system.
Drilling (new wells and workovers)	Nabors Drilling International Limited	Finalized detailed drilling and completions engineering designs. Progressed drill rig optimization.
Port Moresby Construction Training Facility	Eos	Construction is in the final stages, with power and water systems installed and commissioned in all buildings.

Completed LNG plant site Pioneer Camp at night

Safety and Security

In support of the Project's Safety Vision – "Nobody Gets Hurt" – a key focus during the third quarter was gathering lessons learned from early works activities to date and sharing them with contractors preparing to mobilize. Safety alerts, improved hazard identification, a better understanding of risks specific to working in Papua New Guinea, and more effective communication about hazards and mitigation measures all contributed to a downward trend in incidents.

More than one million hours worked with zero Lost Time Injuries

LNG Plant Early Works team celebrating one million hours worked without a Lost Time Injury

During this quarter, the LNG Plant Early Works team achieved over one million hours worked, almost double the efforts of the previous quarter, and with zero Lost Time Injuries.

However, some Project activities were impacted as a result of two situations involving Papua New Guinean citizens and workers that led to work interruptions. In August, work halted over resettlement concerns and claims regarding working conditions. The Papua New Guinean Constabulary maintained order and protected the wellbeing of those on the site and in the adjacent community. There was a second incident in September when equipment was damaged at a quarry site in Kaiam, and the Project's Security team supported police with an investigation.

Environmental Performance

Pre-construction surveys, monitoring, verification and mitigation underpin the Project's commitments in the area of environmental performance. Interim approval of the Project-wide Environmental Management Plans, including the Environmental Monitoring Plan by the DEC, was a key achievement in the third quarter.

The Project has established a strong reporting culture, which resulted in 126 environmental and regulatory incidents being recorded in this quarter, the majority of which were classified as Severity Level <0 (very minor). There were nine environmental near misses, all related to preventing spills from reaching a permeable surface. Identifying and addressing the root cause of each spill, no matter how minor, continues to be a priority so that spills can be prevented from occurring.

To ensure environmental mitigation and management requirements are implemented throughout the Project, site verifications continued across all active worksites. Over 200 summary site verification reports were completed, listing major field observations, non-conformances and required actions. Additional independent verifications by contractors brought the total number of verifications to over 300 for the quarter.

Project Field Environmental Advisors have been stationed at Kopi, Gobe, the LNG plant site, and Hides. They are providing reports summarizing verification activities, which replace verification visits in these locations.

In recognition of the important biodiversity resources in the Project area and Papua New Guinea as a whole, the Project is taking a number of steps to protect these resources. The Quarantine Management Program was finalized during this quarter, and the Biodiversity Strategy is in the final stages of review and approval. Once finalized, consultation will commence with stakeholders such as Government, non-government organizations, industry and communities.

Biodiversity of Papua New Guinea – Broad-Striped Tube-Nosed Fruit Bat, Rhododendron, Modest Forest Dragon

During the third quarter, site-based waste management practices also continued to evolve. Four wastewater treatment plants became operational at camps in Oiyarip, IDT10, Wellpad A and Gobe.

The Project also received notice from the Director of the Papua New Guinea National Museum and Art Gallery that its obligations under the Permit for Salvage Archaeology for the Upstream Scope of the PNG LNG Project were deemed complete. This approval follows the conduct of significant Project cultural heritage survey and salvage efforts across the Hides portion of the Project area.

Social Development

The Project is investing and participating in a broad range of initiatives to promote economic growth and create positive, sustainable impacts in areas including health, education, agriculture, local economic development, women's economic empowerment, and capacity building of individuals and community institutions.

In the area of community health, the Project approved the construction of a Diagnostic Laboratory at the University of Papua New Guinea's School of Medical Sciences to diagnose malaria, tuberculosis, cholera and other diseases. This will be the first integrated infectious disease diagnostic research facility in Papua New Guinea.

The Project continued its collaboration with the Papua New Guinea Institute of Medical Research in the fight against pneumonia, sponsoring their upcoming research program aimed at identifying the most effective vaccine against the specific strain of pneumonia in Papua New Guinea. This research precedes the Papua New Guinean Government's planned selection of a vaccine against pneumonia in 2012.

Support was also provided to the Port Moresby Cancer Relief Society and Friends That Care, which raises awareness around Human Immunodeficiency Virus (HIV)/Acquired Immune Deficiency Syndrome (AIDS) through music and media productions. The Project continues to support Rotarians Against Malaria with the logistics involved in malaria prevention and education programs, for example, through the distribution of bed nets to remote villages.

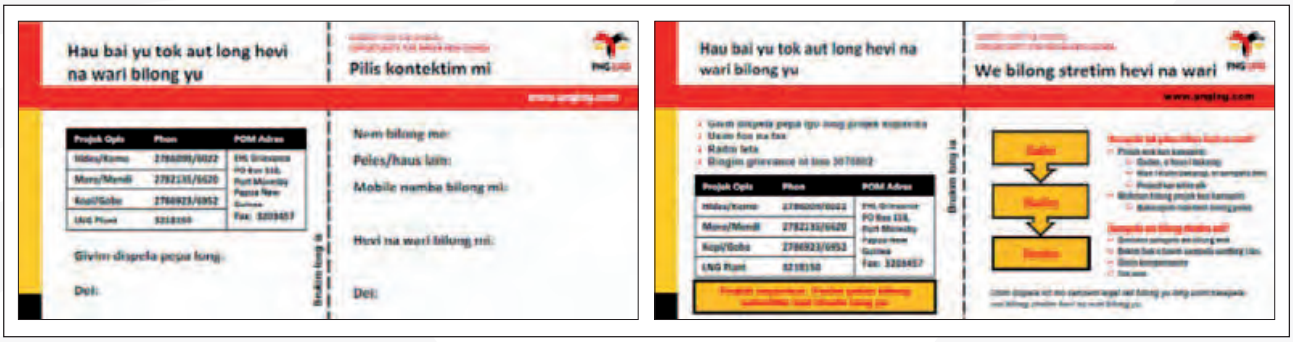
Papua New Guinea flag ceremony for Independence Day celebrations at Kopi Shore Base

Providing a cohesive and considered approach to community investments that ensures resources are allocated efficiently, effectively and equitably is a priority. In September, the Project established a Community Investment and Contributions (CIC) Committee and Working Group to provide internal coordination, strategic oversight and approval of Project-funded community support activities.

The Project's Community Development Support Plan (CDSP) was also provided to the Lender Group. This Plan is aimed at providing opportunities for sustainable development benefits while avoiding or reducing the risk of adverse social impacts on Papua New Guinean communities during Project construction and production.

The Project achieved significant progress with grievance management during this quarter, implementing its Community Grievance Procedure, which covers the reporting, assessment and management of grievances. Training and awareness sessions were attended by close to 200 Project employees and contractors. An information card was also developed for community members, summarizing the grievance process and providing concise contact details and instructions for submitting a grievance.

Community Grievance Procedure card



Stakeholder engagement activities during the third quarter continued to be based on proactively communicating about current and proposed Project activities, addressing stakeholder concerns and seeking opportunities for shared outcomes. The Land and Community Affairs team held approximately 700 formal and impromptu meetings with landowners, spanning all work locations. Landowners have been primarily concerned about business development and employment opportunities.

Community engagement for this quarter focused on the Porebada, Papa, Boera and Lea Lea villages near the LNG plant site. These regular meetings provided a forum for updates on the LNG plant site Pioneer Camp construction work and plans for the near future, as well as an opportunity for open communication with these communities.

In the Hides and Komo areas, a Traffic and Construction Site Safety Awareness Program was implemented focusing on schools, churches, local communities and Project drivers. Direct engagement, drama skits, and fun children's games with a safety message supplemented posters and flyers.

Presentation at Lea Lea Elementary School

Children participating in literacy development activities

A Driver Traffic Safety Awareness Program was conducted in August at the LNG plant site, prior to the opening of the new Bypass Road. The Bypass Road replaced the existing road, which ran through the site, and ensures uninterrupted travel for people living on either side of the site.

As part of the Project's support for empowering women to drive positive economic change in their communities, a number of Papua New Guinean women were sponsored to attend the Australian Women in Agriculture's annual meeting in August. This event allows female farmers to share lessons learned, best practices, and network with peers. In September, along with partner organization the Papua New Guinea Chamber of Mines, the Project began a skills development needs assessment, as a precursor to launching a training program for women in communities around the LNG plant site, including Porebada, Boera, Papa and Lea Lea.

38,000 books sorted and packaged for Children's Libraries

The Project also launched its Workforce Volunteer Program in September with Buk Bilong Pikinini, a library that provides education services and literacy development to children who otherwise would not be able to obtain formal education. Over four days, 59 members of the Project's workforce and their families sorted and packaged over 38,000 books for distribution to Buk Bilong Pikinini libraries in Papua New Guinea.

Developing Papua New Guinean Businesses

Presentation of a certificate of attainment in Business Basics training

In support of the Project's National Content objectives, more than 1.7 million Kina (US$660,000) has been invested through the Enterprise Centre for building the capacity of local businesses and establishing channels for communication between domestic businesses and Project contractors. A series of workshops held in September introduced over 600 Papua New Guinean business people to the LNG Plant and Marine Facilities contractor and its awarded subcontractors, so they could learn more about them, their scope of works, and business opportunities.

During this quarter, the Enterprise Centre assisted more than 1,500 Papua New Guinean entrepreneurs, and so far, almost 900 on-line expressions of interest from Papua New Guinean businesses have been registered and approximately 11,000 page logins recorded in the PNG Supplier Database (http://www.pnglng.com/opportunities/expression_of_interest.htm).

556 million Kina invested this quarter with local companies

In addition, the Project invested more than 556 million Kina (US$210 million) in Papua New Guinean goods and services related to early works, logistics and construction activities during this quarter.

Workforce Development

The Project's workforce has doubled since the second quarter, scaling up rapidly as activities began to transition from early works/site preparation activities into the early construction phase on a number of sites. More than 3,700 Papua New Guinean citizens were employed on Project activities at the end of September, representing almost 80 percent of the Project's total construction workforce. More than two-thirds of these workers were sourced through Landowner Companies (Lancos).

3,700 Papua New Guinean citizens employed representing almost 80% of the total construction workforce

In addition to employing Papua New Guinean citizens for construction-related activities, the Project has recruited 22 personnel as part of a Graduate Training Development Program. These recruits are recent Papua New Guinean university graduates with degrees in Engineering, Business and Finance. Having completed an initial Project-specific training program, they have been assigned within the Project team in a variety of engineering, project control, administration and finance roles at locations including Brisbane, Singapore and Papua New Guinea.

A significant training milestone this quarter was the official opening of the Production Operations Training Centre in Waigani, Port Moresby in September. The Centre will train Papua New Guinean operations and maintenance technicians who will be recruited over the next two years for work in the LNG plant site operating facilities after Project completion and commissioning.

Official opening of the Production Operations Training Centre

Finally, the new Port Moresby Construction Training Facility is on target to take its first 80 civil construction labor trainees in the fourth quarter 2010. Since training commenced in April, 2010 at the interim training facility in Gordon, 152 male and 40 female trainees have graduated with a certificate in civil construction. Approximately 2,500 Papua New Guinean citizens are expected to be trained by the end of March, 2012.

Street view of buildings at the Port Moresby Construction Training Facility nearing completion

Graduate Profile

Name: Paul M Koli
Home Province: Western Highlands
Position: Project Controls

"The six month training program has really changed and equipped me to be a professional and a leader for the company and also the Nation in the future. I have also developed the basic skills to work in the Western corporate environment, and how to work in a team. Not only that, but I also learned a lot about safety at the personal and corporate level which I am always conscious about now in everyday life."

1.0 INTRODUCTION

This Report represents a commitment to transparency by the Project. It provides quarterly updates on construction activities and safety, health, environment and social management of the Project. The publication of this information makes it possible for the citizens of Papua New Guinea, interested non-government organizations and other stakeholders to remain well informed about the Project as it progresses.

This Report is available on the Project's website www.pnglng.com. Where applicable, printed reports and translated summaries are distributed to stakeholders to make information available to the citizens of Papua New Guinea where access to the internet may be limited.

The Project is an integrated development that includes gas production and processing facilities in the Southern Highlands and Western Provinces of Papua New Guinea, including liquefaction and storage facilities (located northwest of Port Moresby on the Gulf of Papua) with capacity of 6.6 million tons per year. There are over 700 kilometers (435 miles) of pipelines connecting the facilities. The investment for the initial phase of the Project, excluding shipping costs, is estimated at US$15 billion. Over the life of the Project, it is expected that over nine trillion cubic feet of gas will be produced and sold. The Project will provide a long-term supply of Liquefied Natural Gas (LNG) to four major LNG customers in the Asia region including: Chinese Petroleum Corporation, Taiwan; Osaka Gas Company Limited; The Tokyo Electric Power Company Inc.; and Unipec Asia Company Limited, a subsidiary of China Petroleum and Chemical Corporation (Sinopec).

The Project will progress in a series of development phases with the first LNG deliveries scheduled to begin in 2014. The location and elements of the Project are illustrated in Figure 1.1. *Appendix 1* details how the contracts for Phase I of the Project have been divided.

Plate 1.1 – Project LNG tanker

Figure 1.1 – Project elements

2.0 CONSTRUCTION OVERVIEW

During this quarter, Project construction activities continued to focus on improving and upgrading infrastructure including road and bridge works, telecommunications and the installation of the pioneer construction camps.

Notable achievements this quarter included:

- The completion of two wharves at Kopi that will be used to receive line pipe for the construction of the gas and condensate pipelines, as well as the associated laydown area for storage.
- The completion, commissioning and handover to the contractor of the 800 person Pioneer Camp at the LNG plant site.
- Commencement of land clearing and earthworks activities at the HGCP site.

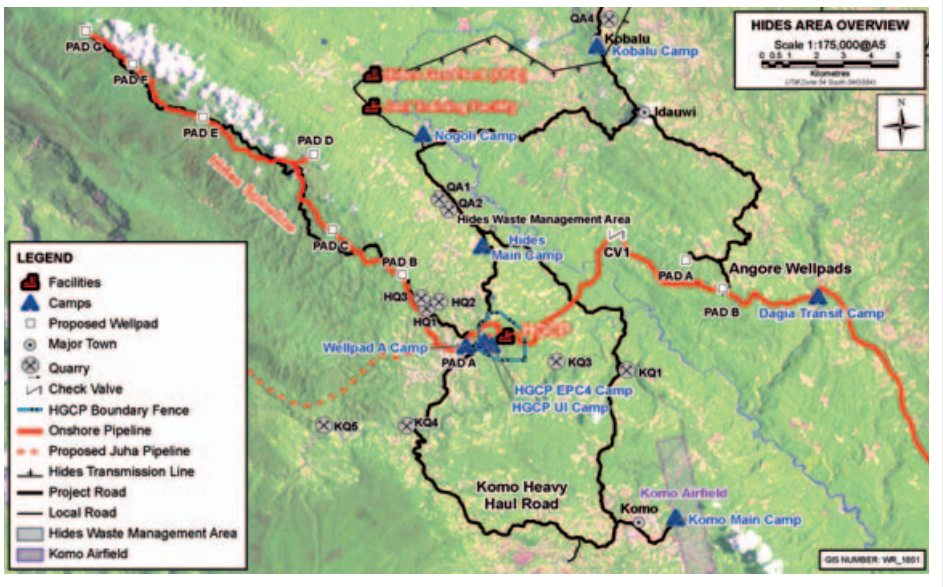
Detailed engineering, execution planning and procurement activities continued to progress at the main office locations of the Engineering, Procurement and Construction (EPC) contractors.

Plate 2.1 – Completed Kopi wharves

Plate 2.2 – LNG plant site Pioneer Camp

2.1 HIGHLANDS AREA (DRILLING, HGCP, KOMO AIRFIELD, HEAVY HAUL ROAD, SUPPLY ROUTES)

Figure 2.1 – Highlands area Project activities (all phases)



2.1.1 Upstream Infrastructure

The Upstream Infrastructure contractor progressed work on a number of fronts as outlined below:

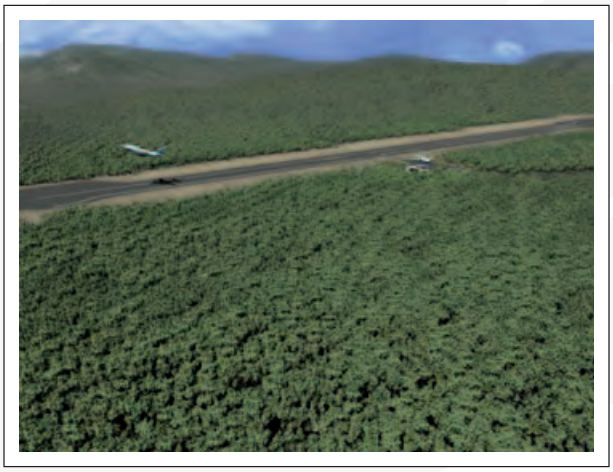
- Northern Logistics Route:
  - Repairs and re-grading of sections of the road were undertaken to support the mobilization of equipment and materials to the Hides site.
  - Accommodation module pre-fabrication continued in Mendi to support the Hides and Kantobo camps.
- Hides/HGCP:
  - The Wellpad A Camp expansion was nearing completion with 330 beds installed.
  - Site clearance for the Upstream Infrastructure HGCP Camp was completed at the HGCP site.
  - Water wells were drilled at the Wellpad A and Juni camps.
  - Pioneering works commenced on the Hides Quarry Access Road.
- Southern Logistics Route:
  - All works at Kopi were completed, including wharves 1 and 2, and the associated laydown area.
  - Construction of the 250 bed Gobe Camp was completed in September.
  - Piling and abutment construction for the Kikori River Bridge progressed.
  - Re-surfacing of the Gobe to Mubi Road was near completion.
  - The Kutubu Central Processing Facility Bypass Road work was near completion.
  - Ridge Camp Bypass Road work commenced.
  - Kantobo to Mubi Road pre-construction surveys were completed.

Plate 2.3 – Wellpad A Camp

Plate 2.4 – 250 bed Gobe Camp

Plate 2.5 – Re-driving piles for the Kikori River Bridge

Plate 2.6 – Illustration of Komo Airfield design



2.1.2 HGCP and Hides Wellpads

The Hides Gas Production Facilities and Hides Wellpads contractor progressed detailed engineering, procurement and planning at their main project offices in Singapore and Brisbane, notably:

- Final design readiness review was completed.
- Detailed plans were developed for the foundation pile testing program.
- The first shipment of temporary camp flat pack modules arrived in Papua New Guinea ready for transportation to the HGCP site.

2.1.3 Telecommunications

A permanent communication facility was completed at the LNG plant site, establishing voice and data services at the Pioneer Camp.

Preparations continue for the installation of satellite communications at camp locations.

2.1.4 Komo Airfield

During the third quarter, clearing of the runway centerline was completed and clearing of camp areas and fencing of the Komo site began.

Geotechnical drilling for the Heavy Haul Road between the airfield and the HGCP site also started, and is expected to be completed during the fourth quarter 2010. Three drill rigs are in operation for soil investigation in the Timalia River area.

Meanwhile, the Komo Pioneer Camp became operational and was expanded to 95 beds.

2.1.5 Drilling

Detailed drilling and completions engineering designs were finalized and progress made with the drill rig optimization. Procurement activities advanced, with significant progress in the review of tenders for the wellhead packages.

Recruitment of two Papua New Guinean drilling engineering trainees was also successfully completed, with both candidates scheduled to start work during the fourth quarter 2010.

2.2 Onshore Pipeline

Highlights during the third quarter included:

- In September, the first load of finished line pipe arrived in Port Moresby.
- The contractor's Shore Base Camp at Kopi became operational.
- Surveys of the pipeline route progressed, with approximately one third of the pre-construction survey complete, and one quarter of the topographic survey complete.
- Clearing commenced for construction camps at Kaiam and at Kopi Scraper Station. Work also started on the access road to the Kopi Scraper Station.
- Clearing activities commenced for the main pipeline. The cleared timber was reused primarily for temporary camp construction.
- Bulk earthmoving vehicles and heavy equipment were delivered to Kopi.

Plate 2.7 – Kopi Shore Base Camp

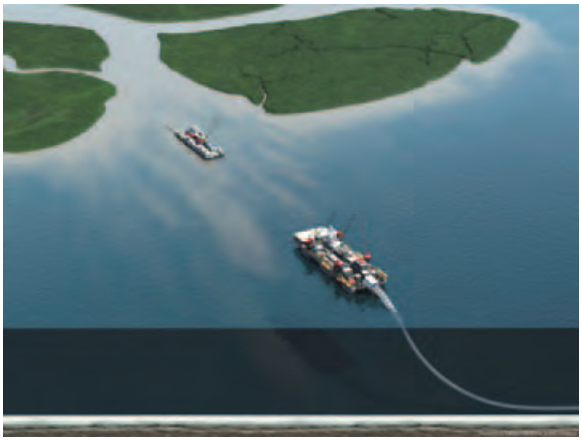
Plate 2.8 – First line pipe load out from Kabil Coating Yard

2.3 Offshore Pipeline

Plate 2.9 – Offshore pipeline illustration

Detailed engineering, execution and installation planning activities progressed at the contractor's Singapore office. Other activities during the quarter included:

- Manufacture of 190 kilometers (118 miles or 46 percent) of bare line pipe, of which 100 kilometers (62 miles) is complete with internal coating and concrete weight coating.
- Commencement of welding procedure qualification tests.



2.4 LNG Plant and Associated Activities

2.4.1 LNG Plant Early Works

The LNG Plant Early Works team achieved over one million hours worked, almost double the efforts of the previous quarter, and with zero Lost Time Injuries.

The LNG plant site Pioneer Camp was commissioned and handed over to the main contractor in September. Meanwhile, the LNG plant site Bypass Road and fencing activities were completed and upgrades to the Papa Lea Lea Road progressed.

2.4.2 LNG Plant and Marine Facilities

Plate 2.10 – Jack-up barge commencing soil boring at jetty head

The LNG Plant and Marine Facilities contractor progressed well with detailed engineering, procurement and planning activities at their main execution office in Japan, notably:

- A preliminary review of the three-dimensional model for the LNG facility process area was completed.
- Hazard and Operability Studies for hot and cold sections, fractionation and off-site utilities were finalized. Hazard and Operability Studies for all process units have now been completed.
- Award of the jetty EPC subcontract.

LNG plant site preparation works have commenced with clearing and earthworks for the construction camp, process areas, equipment laydown and settling pond areas. A temporary concrete batching plant is also being installed.

2.5 Associated Gas Development

Detailed engineering, equipment procurement and execution planning continued for the Kutubu Central Processing Facility, Gobe Production Facility, crude export system and Kumul platform upgrades. The detailed Hazard and Operability Study and model reviews were completed for the Associated Gas Development scope, and design review plans for the new offloading buoy system were finalized.

Camp construction activities continued at the Oil Search Limited Ridge Camp at Kutubu.

2.6 Port Moresby Technical College

Construction of the Port Moresby Construction Training Facility moved into the final stages, with power and water systems installed and commissioned in all buildings. Work has progressed to close-out all punch-list items, including the installation of security systems. The first training will commence at the college during the fourth quarter 2010.

Plate 2.11 a–b – Accommodation and classroom facilities nearing completion

2.7 Development Support – Logistics and Aviation

Plate 2.12 – New Project ferry berthed in Port Moresby

Significant progress was made towards the provision of the ferry service that will operate between Port Moresby and Motukea. This included the arrival in Port Moresby of the transport vessel, and the award of the ferry operations and maintenance contract. Work progressed on the construction of the ferry pontoon at Motukea.

Groundwork also commenced on the new Moro helipad, while the first Project-owned helicopter was delivered. Meanwhile, Kobalu Camp Phase 1 was commissioned and turned over to camp operations.

2.8 Pre-Construction Surveys

Figure 2.2 provides an overview of the progress of environmental pre-construction surveys undertaken across Project worksites during this quarter. These surveys address archaeology/cultural heritage, ecology, weeds and, where necessary, water quality (for example, in camp sites). These pre-construction surveys are a requirement of the Project's Environment Permit issued by the DEC. Sensitivities identified during the surveys are subject to avoidance or other forms of management and mitigation. The pre-construction survey reports are provided to the DEC and, where particular sensitivities (such as those listed in the Environment Permit) are identified, work may not proceed until the DEC has accepted the survey and associated mitigation measures.

Approved pre-construction survey reports are provided to contractors prior to their work commencing at any worksite and status updates are issued to Project construction teams on a regular basis. This status update forms part of the overall site activation process and enables control over the commencement of works at all sites.

Plate 2.13 – Pre-construction survey team for the onshore pipeline

Figure 2.2 – Progress summary of environmental pre-construction surveys

1	Protected Areas	4	Sites or Habitats with Ecological Significance
2	Protected Species	5	Cultural Heritage Sensitivity
3	High-Conservation Value Habitat	6	Social Sensitivity
☑	Approved by DEC	Ⓟ	Approval Pending
ⓘ	Submitted for Information	*	Submission/Approval Month (2010)

Survey Site	Sensitivities Surveyed						Status	
	1	2	3	4	5	6		*
HGCP to Hides Quarry Road				✓	✓		☑	Aug
HGCP to Hides Quarry Road Spoil Site					✓		Ⓟ	Sep
Hides Quarry (HQ) 1 and HQ3, HQ3 Access Road		✓		✓			☑	Aug
Bridges: TA03, TA04, TA05				✓			☑	Aug
Bridges: TA10, TA11, MR05, TA09					✓		☑	Aug
Bridges: HP03, KB02					✓		Ⓟ	Sep
Bridges:TA01							ⓘ	Aug
Kantobo to Mubi River Road (zero to three kilometers)		✓			✓		☑	Aug
Kantobo to Mubi River Road (three to eight kilometers)		✓		✓	✓		Ⓟ	Sep
Kantobo to Mubi River Road (eight to eleven kilometers)		✓			✓		☑	Aug
Kwill Creek Bridge and Laydown							ⓘ	Jul
Kopi Scraper Station Site				✓			☑	Aug
Kopi Shore Base to Kopi Scraper Station Access Road				✓			☑	Aug
Right of Way Kilometer Point (KP) 260 to KP278		✓		✓	✓		☑	Aug
Kaiam Transit Camp KP226		✓					☑	Aug
LNG Plant Early Works Road Upgrade Quarry							ⓘ	Aug

3.0 SAFETY, SECURITY, HEALTH, ENVIRONMENT AND SOCIAL MANAGEMENT

The Project remains focused on protecting and promoting the safety and health of its employees and the communities in which Project-related activities occur. The Project also takes sustainability seriously, by promoting economic growth, social development, and environmental protection while working to bring Papua New Guinea's natural gas to the global market.

3.1 Approach

ExxonMobil's Standards of Business Conduct form the framework by which it operates around the world. Relevant guiding principles and foundation policies to meet these Standards include:

- Environment Policy.
- Labor Practices guidance.
- Health Policy.
- Statement of Principles on Security and Human Rights.
- Transparency initiatives.
- Best Practices in External Affairs.
- Operations Integrity Management System.

Specifically, environmental and social requirements for the Project are addressed in the Project's ESMP.

Safety, health, regulatory compliance, and security aspects pertaining to the Project are discussed in the Project Safety Management Plan, the Health Management Plan, the Regulatory Compliance Plan, and the Security Management Plan, respectively.

The ESMP provides an overview of the environmental and social aspects relevant to the Project, an overview of the environmental and social risks associated with its construction and an outline of environmental and social management and mitigation measures, and monitoring requirements.

The ESMP incorporates all relevant Papua New Guinean legal requirements, International Finance Corporation's Performance Standards, relevant international treaties and conventions and Environmental Impact Statement commitments.

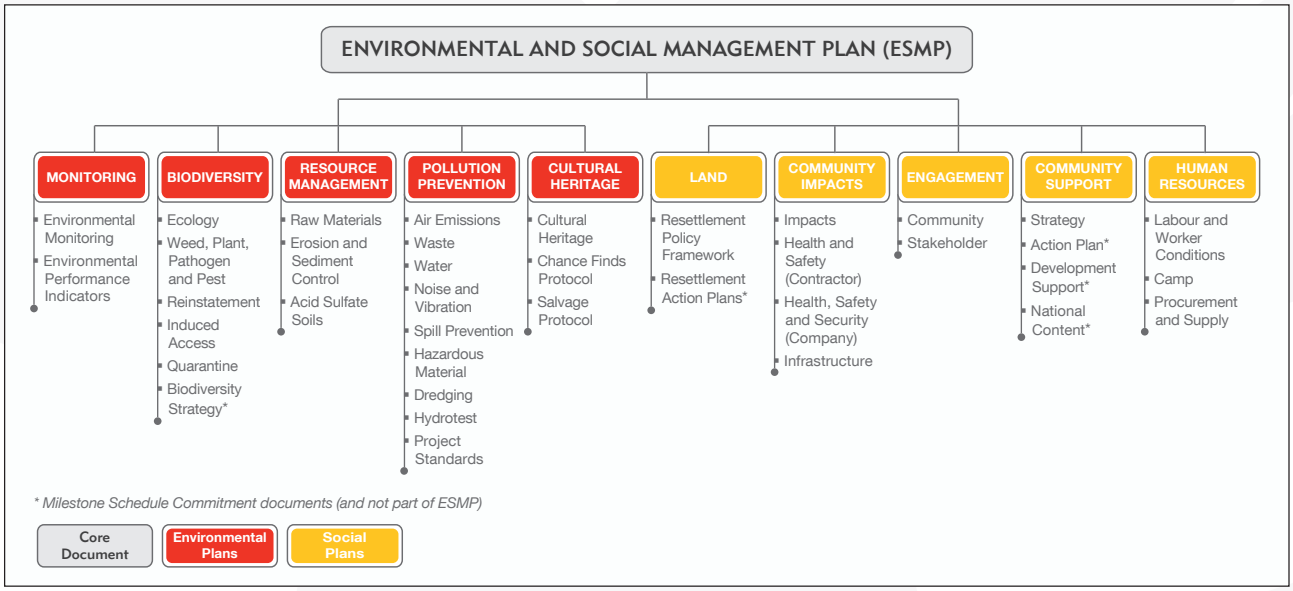
The ESMP is supported by a series of discipline specific plans as summarized in Figure 3.1.

The ESMP and its component plans were agreed with the Lender Group prior to Financial Close. However, further development of the ESMP, was required to incorporate additional environmental monitoring requirements as well as lessons learned from field programs (see *Section 3.6 Environmental and Social Milestone Schedule Update*). The revised ESMP (Revision 1) was submitted to the Lender Group and to the DEC at the end of August. The DEC issued an interim approval of the ESMP (Revision 1) in September.

Plate 3.1 – Native birds

Any further comments received from the Lender Group and/or the DEC will be incorporated in a subsequent revision to the ESMP (Revision 2), which will be publically disclosed on www.pnglng.com.

Figure 3.1 – Environmental and Social Management Plans



3.2 Contractor Management

The Project has seven contractor related Social Management Plans with mitigation measures to reduce negative impacts on communities and to ensure fair and equitable working and living conditions for employees. The contractor related management plans cover; Community Engagement, Community Health and Safety, Community Infrastructure, Community Impacts, and Procurement and Supply.

The plans that provide guidance and mitigation measures to ensure healthy worker welfare conditions are the Camp Management Plan and the Labour and Worker Conditions Management Plan.

Contractors are required to formulate site-specific plans that describe how they will implement the measures described in the seven contractor related plans.

Contractor monitoring for compliance with these measures will begin in the first quarter 2011.

3.3 Security

Project security challenges are systematically addressed and draw on the global experience of ExxonMobil. The Project tailors security best practices to mitigate security risks and has systematic inspection and auditing. The Project works closely with EPC contractors and service providers, and the Papua New Guinean community, to support the management of security in Project work areas. Sustainable and long-term relationships in the communities in which the Project works continues to underpin the Security Strategy. Project Management, Socioeconomic, Land and Community Affairs and Security teams work closely to achieve this goal.

The Project Security team has fully staffed expatriate positions and continues to recruit, train and mentor newly mobilized Papua New Guinean citizens. As a key service provider, the Security team will continue to develop, ensuring that it is flexible enough to quickly adapt to the challenges faced by the construction teams in what is a complex operating environment.

In July, a security alignment workshop was conducted by the Company, which involved EPC contractor security teams as well as key stakeholders. The workshop reinforced to contractors ExxonMobil security best practices and the importance of robust and sustainable community affairs engagement. The principles discussed in the workshop are being implemented by the EPC contractors.

The Royal Papua New Guinea Constabulary continued to have a presence in Project areas with police resources in the Gulf and Central Provinces, complementing the Southern Highlands police resources provided from the second quarter 2010. These resources include community police, investigators, traffic police and a headquarters group to enhance the effectiveness and sustainability of the deployments. The Papua New Guinean Government has committed to providing training to members of the Royal Papua New Guinea Constabulary in the Voluntary Principles of Security and Human Rights before they are assigned to these operations.

During this quarter, the Royal Papua New Guinea Constabulary engaged in two situations involving Project workers and Papua New Guinean citizens. The first occurred in August, when Papua New Guinean landowners and LNG plant site workers halted work over resettlement concerns and claims regarding working conditions. Papua New Guinean police worked to maintain order and protect the wellbeing of those on the site and in the adjacent community. The second incident occurred in September when equipment was damaged at a quarry site in Kaiam and this is now under police investigation.

To prevent actions such as these and minimize work disruptions, the Project continues to work with local leaders and Government to address residents' concerns through the established grievance process. The provision of order through law enforcement is fundamental to a safe and secure operating environment and to be successful requires the cooperation of all stakeholders, including Government, landowners, and the Project.

3.4 Revenue Management

Good governance, accountability and revenue transparency promotes economic stability and deters corruption. They are critical to ensuring that the value unlocked from the extensive gas resources of the Southern Highlands provides economic growth, a better standard of living and increased opportunities for the citizens of Papua New Guinea.

The Governments of Papua New Guinea and Australia are engaged in discussions related to Project revenue management opportunities. Australia is sharing its experience related to the establishment of offshore accounts as a mechanism for effective and transparent management of a government's share of resource revenues. As a member and supporter of the Extractive Industries Transparency Initiative, the Group of Eight Transparency Initiative and the United Nations Convention against Corruption, ExxonMobil welcomes and supports their work in this area.

The Project is committed to honest and ethical behavior, and opposes corruption by supporting transparency. The Project remains an active member of Transparency International, a global coalition dedicated to increasing Government accountability and curbing both international and national corruption. Transparency International has a presence in over 80 countries including Papua New Guinea.

3.5 Management of Change

The Project's Management of Change approach is designed so that changes to Project scope are appropriately reviewed and endorsed by Project management prior to implementation. Proposed changes are considered against a range of Project requirements spanning safety, security, health, environment and social management aspects, as well as operability and maintenance, regulatory and cost and scheduling considerations. Changes are then given a classification, ensuring they are managed appropriately. For example, Class II changes are of Moderate Significance and require Lender Group notification in the PNG LNG Quarterly Environmental and Social Report. Class I changes are more significant and therefore require Lender Group review prior to implementation.

During this quarter, there was one Class II change approved. The change related to urgent repairs and maintenance required on the Northern Logistics Route. The scope of work included repairs and maintenance of major road slips, blocked or collapsed culverts, bridge abutment and deck repairs in order to maximize highway availability in 2011.

3.6 Environmental and Social Milestone Schedule Update

The Project's financing agreements specify undertakings and deliverables required during the Project's development, construction and operation phases.

During this quarter, the following documents were issued to the Lender Group as required by the Environmental and Social Milestone Schedule:

- Updated ESMP (Revision 1).
- Project Standards document.
- Environmental Monitoring Plan.
- Social Monitoring Plan.
- Updated Noise and Vibration Management Plan.
- Journey and Traffic Management Procedure.
- LNG Plant Near-Shore Marine Survey Report.
- Updated Biodiversity Strategy.
- Quarantine Management Program.
- Updated Cultural Heritage Management Plan.
- Community Development Support Plan.
- Community Support Strategy Action Plan.

Plate 3.2 – A Huli from the northern end of the pipeline area decorated for the performance of a celebratory dance – mali

Resettlement Action Plans for the Komo Airfield, HGCP and Hides Quarry Road were also submitted for review. A Resettlement Action Plan for the Heavy Haul Road progressed and will be submitted during the fourth quarter 2010.

The Roads Access Register was developed and is being maintained.

4.0 PROCUREMENT AND SUPPLY

The Project is investing significantly in developing national supply sources and supply route logistics that are mutually beneficial to the Project and Papua New Guinea.

4.1 Supplier Development

The Project aims to create economic opportunities for Papua New Guinean businesses and invest in developing the capabilities of local contractors, suppliers and vendors as part of the National Content Plan.

Papua New Guinea's *Oil and Gas Act 1998* also requires the Project to use and purchase Papua New Guinean goods and services whenever they are comparable to foreign-sourced supplies. This approach has led to the development of Lancos that are owned by people of the same clan or origin, registered with the intent of doing business and who use or have title to land in a specific area.

During this quarter, 14 Lancos provided more than 2,500 personnel to the Project in a range of roles including; construction labor, catering and camp management, security, logistics, and vehicle drivers.

The Project continued to support the development of Papua New Guinean businesses, investing more than 556 million Kina (US$210 million) for goods and services during this quarter. The majority of third quarter activity, and hence, investment, was focused on early works infrastructure construction in upstream areas and at the LNG plant site, construction of training facilities at the Port Moresby Technical College site, mobilization of early works teams for two major upstream contractors, and logistics support.

4.2 Enterprise Centre

In support of the Project's National Content objectives, the Papua New Guinea Institute of Bankers and Business Management's Enterprise Centre continues to work to provide capacity building opportunities to domestic businesses and establish channels for communication between those businesses and Project contractors. To date, more than 1.7 million Kina (US$660,000) has been spent through the Enterprise Centre. A further 1.1 million Kina (US$426,000) was allocated to the Enterprise Centre in July for additional Representative Lanco assistance services.

Plate 4.1 – The Enterprise Centre team

Plate 4.2 – Site for new Enterprise Centre premises

To meet the demand for Enterprise Centre services, plans to expand the team were accelerated. The Enterprise Centre consists of two groups who work closely together and are led by the Enterprise Centre Manager. The Communication and Interface Group includes four full-time employees who administer the PNG Supplier Database, identify business opportunities and communicate with the Project. The Business Assessment Group has three full-time employees and four consultants conducting Business Assessments and providing training for Papua New Guinean businesses.

Construction of the Enterprise Centre's new permanent building has been delayed awaiting a construction permit. The Enterprise Centre continues to operate out of refurbished facilities at the Papua New Guinea Institute of Bankers and Business Management's premises in Port Moresby. The Centre is expected to move to its new facilities, also located on Papua New Guinea Institute of Bankers and Business Management premises, by the end of the first quarter 2011.

4.2.1 Business Training and Assessments

The Enterprise Centre provides comprehensive training for Papua New Guinean businesses, ranging from a short (two and a half day) course on Board of Director roles and responsibilities to a 15 day course in accounting. Advisory services are also offered on topics such as Management, Human Resource Management, Accounting and Finance, and Inventory Management. For the year-to-date, the Enterprise Centre has provided over 770 days of training to the Papua New Guinean business community. Of this, 245 days training were undertaken by women, equating to 32 percent of total training days.

Figure 4.1 – Capacity building in training

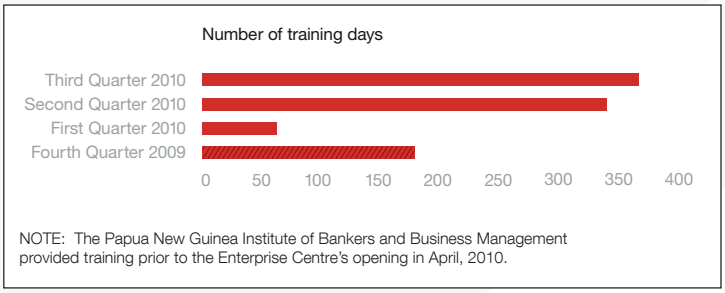
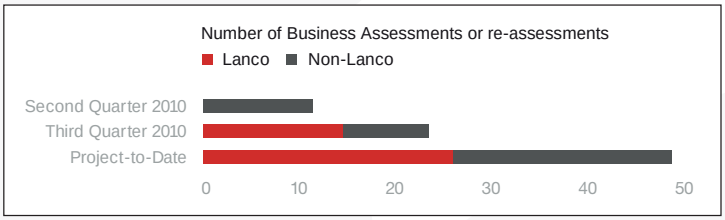


Figure 4.2 – Enterprise Centre assessments of local companies



Business Assessments of Papua New Guinean companies continued during this quarter, bringing the number conducted so far this year to 34. Each company assessed by the Enterprise Centre receives a proposed Business Improvement Plan with solutions matched against key management and performance standards.

Plate 4.3 a–b – Conducting Business Assessments

4.2.2 Enterprise Centre Communication and Events

The Enterprise Centre served more than 1,500 Papua New Guinean entrepreneurs during the third quarter through workshops, business meetings, and by providing assistance with PNG Supplier Database registration and information about the Project.

The Enterprise Centre provides a professional, safe and convenient location where the Papua New Guinean business community can engage with Project contractors. During the third quarter, 377 business meetings took place at the Enterprise Centre involving contractors, Lancos and non-Lancos.

So far, 887 on-line expressions of interest from Papua New Guinean businesses have been registered and 11,364 page logins recorded in the PNG Supplier Database (http://www.pnglng.com/opportunities/expression_of_interest.htm).

The PNG Supplier Database is accessible on-line to registered companies via the PNG Supplier Dashboard. The PNG Supplier Dashboard continues to be an effective means of sharing information between local companies and Project contractors by providing a platform for Project contractors to access Papua New Guinean company profiles. It contains information about the Project that is tailored to local companies and is easily accessed from the Project's website (www.pnglng.com).

Figure 4.3 – Expression of interest 2010 status in the PNG Supplier Database

Registered	Awaiting review	Incomplete	Page logins
374 First Quarter	71 First Quarter	703 First Quarter	4,281 First Quarter
336 Second Quarter	67 Second Quarter	368 Second Quarter	4,851 Second Quarter
177 Third Quarter	31 Third Quarter	542 Third Quarter	2,232 Third Quarter

During this quarter, the Enterprise Centre Communication and Interface Group also hosted a series of events to better understand business community expectations, deliver information about the Project, and identify business opportunities for Papua New Guinean businesses.

Road Shows

With the assistance of the Port Moresby Chamber of Commerce and Industry (CCI), the Lae CCI and the Mount Hagen CCI, the Enterprise Centre conducted road shows in Lae and Mount Hagen in July. Information booklets and other communication materials relating to the Project were distributed to over 147 Papua New Guinean entrepreneurs. This initiative was received positively by attendees and the media.

Plate 4.4 – Presentation during the Enterprise Centre road show

Port Moresby Chamber of Commerce and Industry Monthly Breakfast Meeting

The Enterprise Centre Manager was invited as a guest speaker at the Port Moresby CCI monthly breakfast meeting in July. This meeting was attended by 94 participants. This event targets the local business community and is considered one of the best platforms in Papua New Guinea for businesses to become informed about domestic and foreign market trends and opportunities. Directly after the event, the Enterprise Centre Manager was interviewed by the local television station EMTV.

Plate 4.5 a–b – Port Moresby Chamber of Commerce and Industry breakfast

Seminars and Workshops

A series of workshops held in September also gave 639 Papua New Guinean business people the opportunity to meet with the LNG Plant and Marine Facilities contractor and its awarded subcontractors to learn about them, their scope of works, specific requirements and procurement processes as well as business opportunities.

The Enterprise Centre also convened a Procurement and Payables training session to help vendors to avoid payment delays. A total of 30 vendors participated and the presentation from the session is publicly available on the PNG Supplier Dashboard.

Plate 4.6 – Procurement and Payables training session

CASE STUDY ONE:
ENTERPRISE CENTRE PRIMING LOCAL BUSINESSES FOR SUCCESS

When the LNG Plant and Marine Facilities contractor required a supplier of sand and gravel for the LNG plant site, 20 kilometers (12 miles) north of Port Moresby, they sought the assistance of the Enterprise Centre.

The Enterprise Centre is an independent institution located within the premises of the Papua New Guinea Institute of Banking and Business Management in Port Moresby with two primary functions. The first is facilitating communication between national suppliers, contractors and subcontractors by communicating business opportunities, maintaining a PNG Supplier Database and facilitating access to Project information.

The second is to build the capacities of national companies by organizing seminars and business training and providing business improvement services such as gap analysis, consulting and advisory services.

Having been approached by the LNG Plant and Marine Facilities contractor for assistance identifying potential suppliers of sand and gravel, the Enterprise Centre conducted a search across the relevant companies that have registered an expression of interest in working on the Project through the PNG Supplier Database.

The Enterprise Centre provided a shortlist of companies with relevant expertise who were subsequently invited to tender for the contract. Following an evaluation of the tenderers' technical and commercial offers, HG Quarries Limited was selected by the LNG Plant and Marine Facilities contractor as the preferred tenderer and awarded a contract in July.

HG Quarries Limited commenced operations six years ago and has grown to 150 employees.

Enterprise Centre Manager, Ms. Sweta Sud said: "What is most impressive about HG Quarries is their quality control processes. Being procedure oriented, they follow strict quality assurance guidelines for their end products and they have a state-of-the-art quality control laboratory on-site."

Ms. Sud goes on to say: "Our business assessment with HG Quarries resulted in a two-star rating [out of a possible three stars]. An area we identified for improvement, which could make their business more sustainable for the future, is developing process manuals in finance, human resources and administration as well as a specific plan on continuous improvement."

Enterprise Centre assessment report presentation

"We are now working closely with the management team of HG Quarries to implement a Business Improvement Plan that addresses the gaps we identified and promotes business sustainability through rigorous management processes", Ms. Sud said.

Based on the Enterprise Centre's experience working with local companies to date, many businesses need assistance developing commercial documentation and policies that grow their operations on a sustainable basis and move towards compliance with best practices.

CASE STUDY ONE:
ENTERPRISE CENTRE PRIMING LOCAL BUSINESSES FOR SUCCESS

The Enterprise Centre has responded by increasing the skills of its business advisors, developing personalized and comprehensive Business Improvement Plans and broadening the portfolio of advisory services provided to meet local business needs.

HG Quarries facilities

The Managing Director of HG Quarries, Mr. Calvin Loh, said that companies wishing to win contracts with the Project must be proactive in improving and marketing themselves: "My advice to other companies is that you have to be self-motivated and chase after the contractors rather than just sit and wait."

Mr. Loh also said: "We believed that if we could get a start with the Project, regardless of how small it is, we will grow from there."

When asked for his thoughts on the service provided by the Enterprise Centre, Mr. Loh said: "Our experience with the Enterprise Centre has been good. In order to comply with the Project's high level of requirements, there are some things that we needed to act on. The Enterprise Centre gave us positive feedback and pointed out how we can improve. The end result is that there are some guidelines for us to follow".

The Enterprise Centre's Approach to Business Assessments

Business Assessments examine companies in terms of their business structure, operations, systems and processes in order to identify skills gaps, training requirements and opportunities for business improvement. Evaluations are conducted across key elements of business management including organization and governance, business management, finance, personnel, safety, health and environment, quality, equipment, and citizenship and reputation.

Business Assessments benefit companies by providing:

- An independent review and gap analysis of critical business elements.
- A documented Business Improvement Plan.
- Access to Enterprise Centre capacity building programs.
- Enhanced visibility to Project contractors and other stakeholders.

Business Assessment Methodology

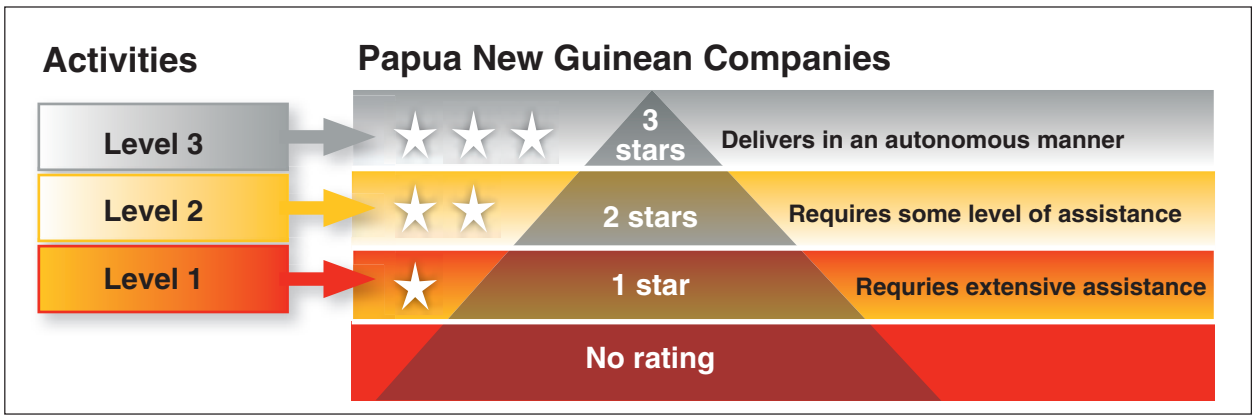
Following a pre-assessment meeting, an on-site business review is conducted by Enterprise Centre consultants to gain a clear understanding of the company's objectives and key business processes. Business managers, directors and operational staff are interviewed, the Business Plan and operations are assessed and areas for improvement are identified.

CASE STUDY ONE:
ENTERPRISE CENTRE PRIMING LOCAL BUSINESSES FOR SUCCESS

Key areas of focus include process control, formal documentation, the sustainability of key operational processes and whether the organization as a whole strives for excellence.

Business Assessments segment businesses using a three level rating system as shown in the following diagram.

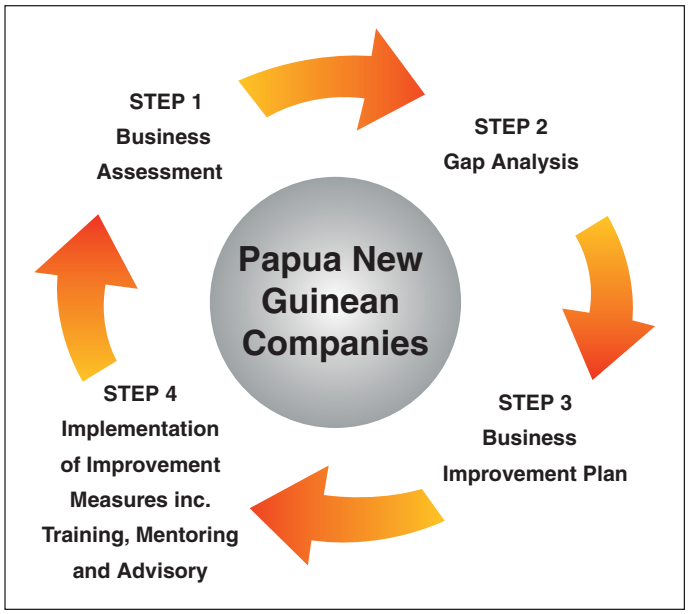
Business Assessment Ratings



The outcome of each business assessment is a comprehensive report containing a gap analysis identifying improvements required to align a business' operations with global business standards and opportunities to increase business performance.

The final step is converting the analysis and the recommended approaches into a practical and cohesive Business Improvement Plan which includes implementation phases mapped to identified gaps and corresponding specific recommendations for process improvements.

The Business Assessment Process



5.0 COMMUNITIES

The Project has translated its respect for the land, environment, and rights and cultures of local communities into detailed plans and processes aimed at anticipating potential impacts of construction activities on local communities within Papua New Guinea, understanding community perspectives on issues of mutual interest and directing Project operations appropriately.

5.1 Structure and Relations

A specific set of management plans have been developed, which include the:

- Community Engagement Management Plan: covers community relations, grievances and disruption.
- Community Impacts Management Plan: addresses impacts that may affect the structure of, and relations within, communities.
- Community Infrastructure Management Plan: aims to avoid or minimize the impact of construction activities on existing community infrastructure and services.
- Community Health and Safety Management Plan: focuses on avoiding or minimizing risks to and impacts on the health, safety and security of the local community during construction.

The Project's progress on community structure and relations activities in the third quarter is outlined in the following sections.

5.1.1 Community Grievance Procedure

The Project achieved significant progress with grievance management during the third quarter. This included formal implementation of the Community Grievance Procedure, which covers the reporting, assessment and management of grievances.

The Project has adopted an Information Management System, which encompasses three environmental modules and seven social modules, four of which have already been implemented. One of these is a grievance module, which enables systematic, electronic management of the Community Grievance Procedure. The Procedure complies with risk management, safety and continuous improvement objectives and requirements.

During this quarter, Community Grievance Procedure training and awareness sessions were attended by close to 200 Land and Community Affairs employees, Socioeconomic, Land and Community Affairs leads, EPC Project Management Teams, and contractors, emphasizing the importance of thorough and consistent grievance recording and management. To date, 80 percent of Village Liaison Officers and Community Liaison Officers have been trained, and the remaining 20 percent will be trained by early November, 2010.

As defined within the Procedure, a grievance is considered submitted when a formal complaint is lodged by an individual, group, or community alleging damage, impact, or dissatisfaction resulting from Project actions. It is usually submitted in expectation of a corrective action.

The Community Grievance Procedure provides tools to manage and track, to completion, all grievances.

Simplified Community Grievance Procedure process flowchart

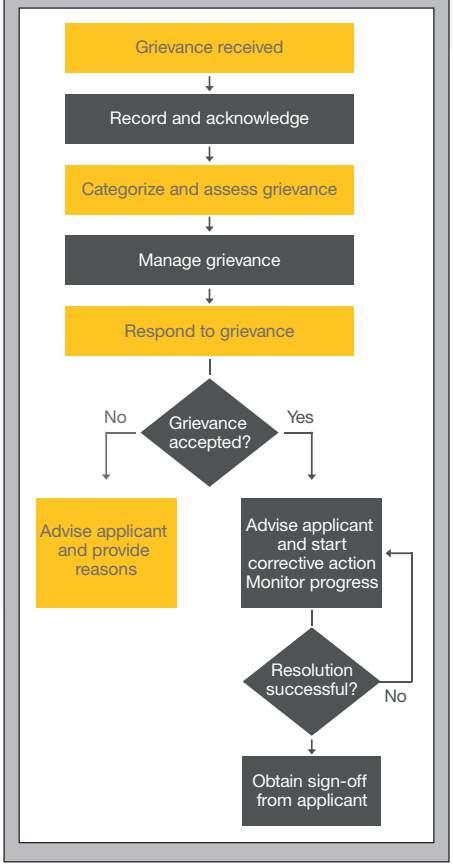


Figure 5.1 – Information Management System Dashboard

During this quarter, 90 grievances were received and a further eight historical grievances were added to the Information Management System (as shown in Figure 5.2). Nine grievances were closed. As indicated in Figure 5.3, most grievances related to compensation associated with resettlement. Other grievances covered recruitment, land disputes, business opportunities and strategic community investments, environmental and miscellaneous concerns.

An information card was developed during this quarter, which summarizes the grievance process and provides concise contact details and instructions for submitting a grievance. This information card aims to provide an easy to use mechanism for members of the community to utilize the Project's Community Grievance Procedure. The cards became available in late September and were distributed by Land and Community Affairs Area Coordinators at central community meeting points and via Community Relations and Village Liaison Officers. Most sites can print the cards as needed. Awareness and training sessions are in the process of being planned for the community.

Figure 5.2 – Grievances recorded during the third quarter

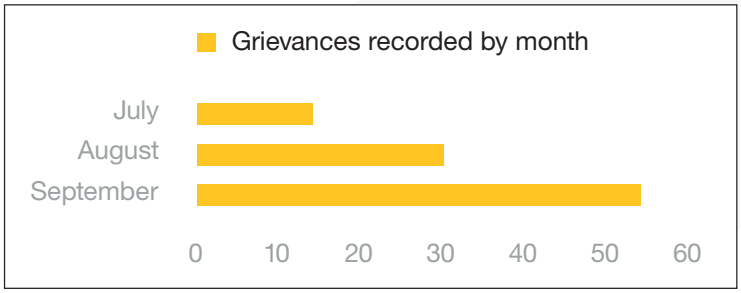
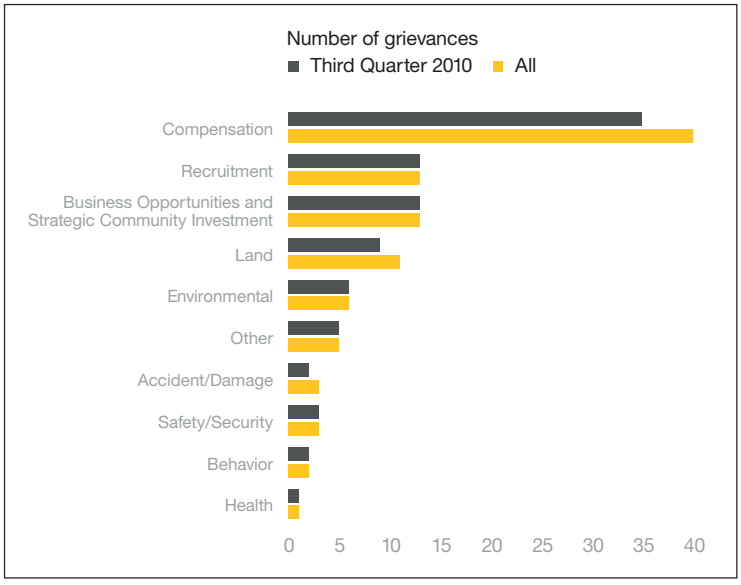


Figure 5.3 – Grievances reported by category of grievance



5.1.2 Project Induced In-Migration Study

Large construction projects can directly lead to an influx, or in-migration, of people from both outside and within the Project Impact Area who perceive there will be economic and employment opportunities, and access to improved community services or family security.

The Project is conducting a Project Induced In-Migration Study to better understand potential migration pathways and concentration points, as well as key environmental, social and spatial impacts. This study involves:

- Collecting baseline information on naturally occurring in-migration within the Project area.
- Analyzing the construction phase workforce schedule and identifying the locations and size of temporary camps for workers, including how long they may be in use.
- Assessing the potential for more permanent in-migration as a result of the Project's production phase, for example, in areas close to the HGCP and LNG plant site.
- Prioritizing locations for the preparation of monitoring and management action plans.

Once the study is completed, a Project plan addressing Project induced in-migration will be developed including in-migration strategies and influx management and mitigation measures.

5.1.3 Fisheries Surveys

The Project has engaged the University of Papua New Guinea to undertake fish catch landing surveys at Porebada, Papa, Lea Lea and Boera. The fish catch landing surveys involve a survey team comprising experienced local fisheries specialists, Village Liaison Officers, and Land and Community Affairs staff from each of the villages. The survey data is captured by University of Papua New Guinea marine biology students supervised by Project fisheries team members and University of Papua New Guinea senior lecturers or supervisors.

To date, surveys to test the fish catch landing methodology have been undertaken at least once in each of the four villages. Community involvement and willingness to allow the survey team to record the catches is critical to understanding fishing activities in the four villages.

Plate 5.1 – University of Papua New Guinea staff and students recording fish catch information at Boera village

Plate 5.2 – Students recording fish catch survey data at Lea Lea village

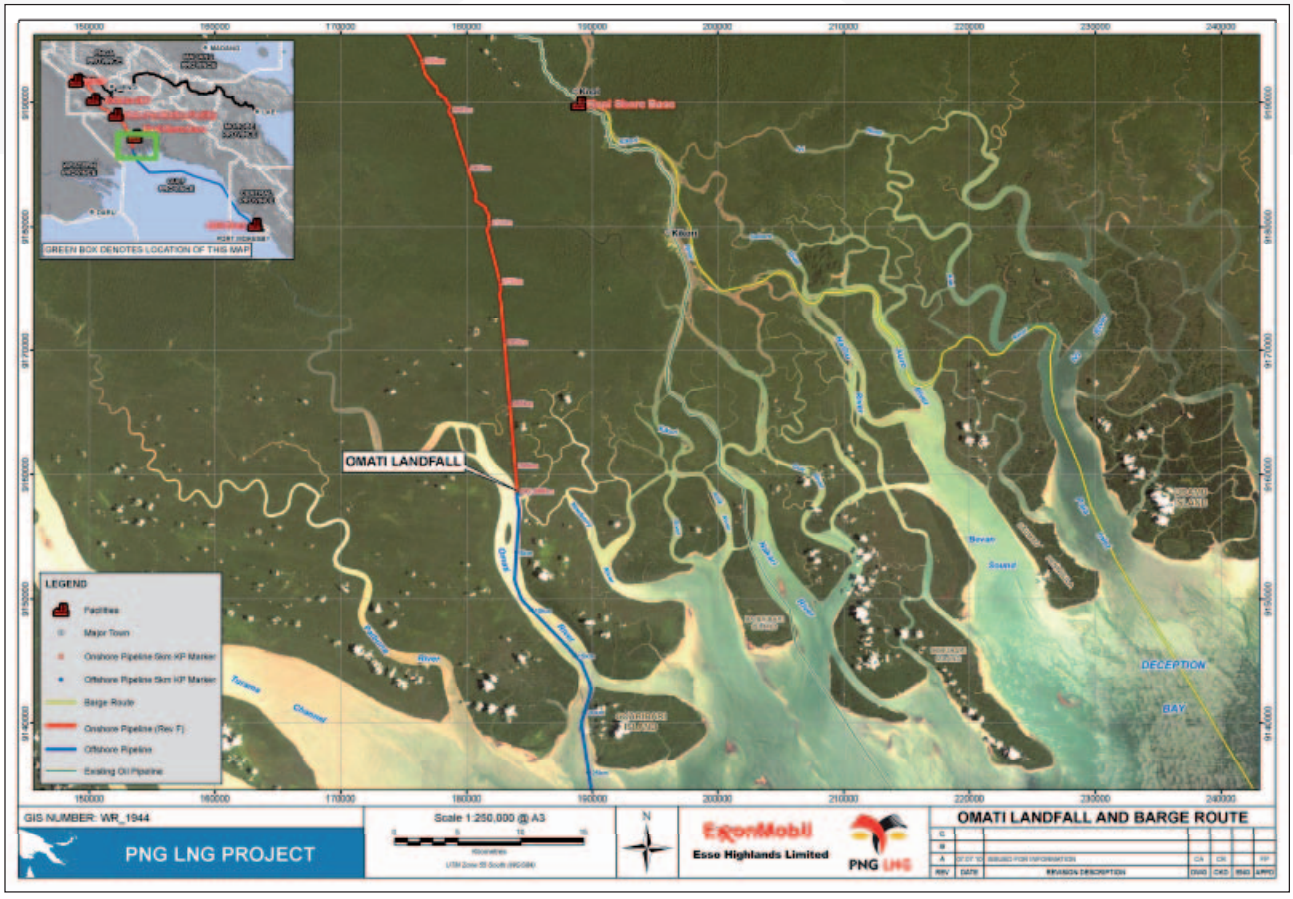
Plate 5.3 – The survey team recording the weight of fish caught at Papa village

Plate 5.4 – A student recording the length of a fish caught at Porebada village

5.1.4 Social Considerations for Logistics Activities

The Southern Logistics Route enables the Project to transport materials and equipment to existing facilities both across waterways and on land. The Southern Logistics Route includes access to Kopi via waterways, as well as overland access to Project facilities by trucks and heavy vehicles using existing roads, and upgraded and new roads constructed by the Project and the use of airfields. The barging route section of the Southern Logistics Route that enables transportation via existing waterways is illustrated in Figure 5.4.

Figure 5.4 – Southern Logistics Route



The Kopi wharves are a key component of the Southern Logistics Route. Bulk carriers will moor in the deep water channel at Paia Inlet while Project materials and equipment are offloaded on to barges. Tug boats will then tow these barges through the river system to the Kopi wharves where cargo will be offloaded for transportation by land to construction camps, pipe laydown yards and other sites.

The Project has worked with tribal groups within the barging route area to provide the Project with access to the waterways for transportation requirements and to address the temporary impacts this will have on local communities.

In September, a Memorandum of Understanding was signed with the eight tribal groups whose livelihoods are dependent on the waterways of the barging route. The Memorandum of Understanding includes the implementation of community projects that support the eight barging route tribal groups. Meanwhile, the Komo Airfield Study is nearing completion, pending confirmation of a number of design elements and their potential social outcomes, and related mitigation measures.

5.2 Infrastructure, Services and Resources

The Project's Community Infrastructure Management Plan addresses aspects such as changing road conditions, road access, river access, disruption to electrical supplies, water supply and distribution, and telecommunications. The Community Impacts Management Plan covers topics including improved road conditions, marine and river vessel movements, fire and emergency services and response, water quality and quantity, raw materials, and produce availability and price distortions.

At 292 kilometers (181 miles) long and 1 kilometer (0.6 mile) wide, the onshore pipeline temporary construction corridor is a significant component of the Project. The construction corridor allows for re-alignment of the pipelines 30 meter (98 foot) wide Right of Way in the event that an obstruction or sensitivity is encountered within the construction corridor. In accordance with the plans described above, the Project conducts pre-construction route surveys to confirm the placement of the pipeline construction corridor and the associated Project footprint. The surveys identify potential impacts of construction activities on community infrastructure as well as environmental and/or social sensitivities. Pre-construction survey team specialists record 'built' features such as houses, roads, and graves and 'natural' features such as forests, gardens and bodies of water. They then provide location reports describing any community infrastructure, housing, agriculture and potentially significant social constraints or other sensitive receptors.

These are recorded in the Project Geographical Information System, and practical advice, options and recommendations to reduce or avoid impacts to communities are provided. A social constraints map indicating specific sites of potential social impact is subsequently prepared and mitigation measures to minimize impact are proposed. In some instances, this may mean proposing a suitable alternative route for the pipeline to avoid a particular sensitivity.

Pre-construction surveys support decision-making at Project locations, as evidenced by work that is now underway at the Komo Airfield and Hides area. A report identifying existing water sources at Hides that may be impacted by the Project and recommending mitigation measures to ensure no loss of amenity and accessibility to infrastructure by the community was completed last quarter. An action plan has been developed and execution is set to commence.

Another pre-construction survey identified that the construction of the HGCP fence may increase the walking distance for some individuals to roads or other facilities. Design and planning work is underway for construction of an access track on the outside edge of the fenceline. This will provide the community with an access way from the entrance point of the HGCP Southern Access Road into the buffer area and around to the eastern side of the site.

The Project continues to strengthen its relationship with the local community at Hides through regular contact with the Hides Land Owner Committee to discuss and negotiate decisions that have the potential to impact the community.

Meanwhile at Komo Airfield, a perimeter fence is being constructed and an additional 2 meters has been cleared on the outside of the fence to provide a pedestrian track.

In addition, the Heavy Haul Road, which connects Komo Airfield with the HGCP, has been re-aligned to minimize the number of household resettlements.

5.3 Verification, Monitoring, Assessment and Audit

The first IESC Environmental and Social Compliance Monitoring Report was published on the Project's website (www.pnglng.com) in August, following an initial monitoring visit held in the second quarter 2010.

This Report acknowledged the significant efforts taken by the Project to meet its commitments. It identified some non-conformances in areas such as milestone schedule, waste management, resettlement and community impact. The Project used the Report's findings to identify appropriate remedial actions, with many areas already addressed. A summary of findings and Project actions is located in *Appendix 2*.

The Project has also significantly progressed work with contractors and subcontractors on a Contractor Field Monitoring checklist that enables the Project to verify contractor compliance with the Social Management Plans. The checklist is being finalized and will be introduced from the first quarter 2011. Where non-conformances are identified, the contractor will be notified and corrective actions will be required.

The checklist will coincide with a new monthly reporting template that is also planned to be introduced in the first quarter 2011. Contractors will be required to complete monthly reports on the implementation of the Project's seven Social Management Plans within their work scope.

5.4 Community Health

The Project's commitment to protecting the health of the communities in which it operates is demonstrated through its Community Health Management Program. The Program is based on 12 Environmental Health Areas identified in the International Finance Corporation Performance Standards to provide a standard framework for considering potential community and household level impacts. Resources and support are provided for a range of activities and projects that have the potential to bring about positive impacts on community health both immediately, and in the long-term.

5.4.1 Integrated Health and Demographic Surveillance System

The Partnership for Health, a formalized partnership agreement between the Project and the Papua New Guinea Institute of Medical Research, was launched in August. Representatives from the Institute of Medical Research, the Project and the Papua New Guinean Government came together to celebrate this very important event. Further details of the Integrated Health and Development Surveillance System are given in *Case Study Two – Improving Public Health in Papua New Guinea*.

5.4.2 Scoping and Feasibility Analysis

The Project is providing support to conduct a Scoping and Feasibility Analysis to determine what health and education programs can be conducted effectively and sustainably. The Analysis covers five geographic areas; the LNG plant site, the Gulf Province, Onshore Pipeline Route, Hides and the Northern Logistics Route.

Ten program areas are addressed:

- Maternal and child health including immunizations, pre- and post-delivery care and planning.
- Sexually Transmitted Infections, including HIV/AIDS.
- Malaria and other vector-borne diseases.
- Water sanitation.
- Tuberculosis.
- Education.
- Gender issues.
- Health systems strengthening.
- Non-communicable diseases.
- Workplace/community interface.

5.4.3 Health Services Infrastructure/Capacity

During this quarter, support was provided to the Hiri District Supplemental Immunization Program for communities in the area of the LNG plant site. This Program is a Papua New Guinean Government Program and the Project provided support as part of its input to existing functional programs targeted towards the Community Health Program mitigation strategies. Equipment was provided to the eight Immunization teams to enhance their Program efforts. Project Community Liaison Officers were involved in communicating dates when the Immunization teams would be in the area to provide Immunizations.

Building on discussions held during the second quarter 2010, the Project also provided support to the Salvation Army Health Services to help equip their newly renovated Papa Community Health Post.

Based on needs identified by local health workers and the Hiri District Maternal Child Health Coordinator, small clinic support supplies were obtained and delivered to both Papa and Porebada Health Posts to assist with patient care.

Plate 5.5 – Hiri District Supplemental Immunization Program team

Plate 5.6 – Salvation Army Papa Community Health Post under renovation

5.4.4 General Community Health Education

A number of areas are covered under the heading of general community health education – first aid, HIV/AIDS prevention, community based vector control, and sanitation and hygiene.

Dental health and hygiene is a significant issue in Papua New Guinea and one that can contribute to respiratory disease in both adults and children. The Project is liaising with the Department of Education, schools and the Hiri District Family Health Unit to determine its involvement in a community based Dental Health and Hygiene Program.

5.4.5 National Program Management Delivery Systems

As part of the Project's commitment to community investments (see *Section 5.6.3 – Strategic Community Investments*), the design phase of the National Infectious Diseases Diagnostic and Research Laboratory and Outreach Program was underway this quarter. The Program is being undertaken in conjunction with the University of Papua New Guinea School of Medicine and the Institute of Medical Research. These two organizations will collaborate on the Diagnostic Laboratory to be located at the School of Medical Health Sciences main campus with the Institute of Medical Research as the managing operator.

Plate 5.7 – Blood pressure equipment donated to a local health center to build capacity for diagnosis

5.4.6 Sexually Transmitted Infections and HIV/AIDS

Following a review of approach/protocols last quarter, the Project signed an agreement with the Papua New Guinea Institute of Medical Research for the evaluation of Sexually Transmitted Infection rapid diagnostic testing kits across key Project areas with an emphasis on the Northern Logistics Route. Coordination meetings were ongoing with Project teams to define 'closed camp' policies and enforcement procedures.

5.4.7 Respiratory Infections

The Project continued its collaboration with the Papua New Guinea Institute of Medical Research in the fight against pneumonia, sponsoring their upcoming research program aimed at identifying the most effective vaccine against the strain of pneumonia in Papua New Guinea. This research precedes the Papua New Guinean Government's planned selection of a vaccine against pneumonia in 2012. The Project was also a sponsor of the Institute of Medical Research Pneumonia Colloquium in August, which involved significant numbers of health workers from the Hides area.

5.4.8 Vector Related Diseases (malaria, lymphatic filariasis, dengue fever)

The Project continues to collaborate with Rotarians Against Malaria to provide logistics support for their Long Lasting Insecticide Treated Bed Net Education and Distribution Program. This includes household surveys on bed net use, interviews to determine possible evidence of lymphatic filariasis, follow-up with the National Department of Health for lymphatic filariasis treatment responses where symptoms are found, and malaria prevention education programs. Distribution of bed nets occurred in the Kikori/Kopi and Southern Highlands remote village areas.

The Project is determining the capacity for expanding their bed net educational programs to cover other health areas such as sanitation/hygiene, Sexually Transmitted Infection/HIV/AIDS prevention, hand washing and respiratory disease prevention.

5.4.9 Contractor Conformance

Further meetings were held with the Papua New Guinea Business Coalition Against HIV/AIDS following on from previous activities, including submission of the Projects' policy on Sexually Transmitted Infections and HIV/AIDS in the second quarter 2010. The purpose was to develop strategies to connect the Project contractor organizations with the Papua New Guinea Business Coalition Against HIV/AIDS's services. The Papua New Guinea Business Coalition Against HIV/AIDS aims to assist employers to develop an HIV and AIDS workplace policy and related services.

CASE STUDY TWO: IMPROVING PUBLIC HEALTH IN PAPUA NEW GUINEA

Investing in research, population-based surveillance, and training and development opportunities for scientific and medical personnel creates opportunities for significant and lasting public health improvements in Papua New Guinea.

As such, the Project has formalized a partnership agreement with the Papua New Guinea Institute of Medical Research, which will span several years and is described as the Partnership for Health.

Peter Graham (Esso Highlands Limited) formalizing the partnership agreement with Professor Peter Siba (Institute of Medical Research)

"We are pleased to support IMR [Institute of Medical Research] in their efforts to improve the health of the families and communities that this disease [pneumonia] impacts."

Mr. Peter Graham,
Managing Director,
Esso Highlands Limited

"I am very pleased that the Institute will be working with the PNG LNG Project to develop health programs that will benefit the people in the Project areas and throughout PNG."

Professor Peter Siba,
Director of the Institute of Medical Research
Papua New Guinea

Under the agreement, the Project will support the development of public health programs that will benefit people who live and work in the vicinity of the Project as well as other parts of Papua New Guinea. Research and training will be a particular focus, with priority areas identified as:

- Research on respiratory diseases aimed at decreasing the occurrence of such diseases in adults and children.
- Decreasing and managing Sexually Transmitted Infections, and an evaluation of HIV/AIDS related research strategies.
- Expansion of research into the diagnosis of tuberculosis, analysis of drug resistance patterns and advanced training of Papua New Guinean citizens as biomedical scientists.
- Development of a surveillance system for relevant vector-borne diseases, including advanced training for Papua New Guinean students as future scientists.
- Extension of a formal Integrated Health and Demographic Surveillance System involving monitoring of a population for rates of births, deaths and migration over time. Support will be provided to the Institute of Medical Research for expansion of activities at two existing Institute of Medical Research Demographic Surveillance System sites, Madang and Asaro, with the addition of another two sites, the LNG plant site and Hides, covering 70,000 people. Training will be provided to Papua New Guinean citizens in demography and advanced epidemiology. The Port Moresby Institute of Medical Research office was being established during this quarter and staff have been recruited for the LNG plant site area, offering employment opportunities to the local population. Clinical staff positions are being recruited in conjunction with the University of Papua New Guinea and Port Moresby Hospital.

CASE STUDY TWO:
IMPROVING PUBLIC HEALTH IN PAPUA NEW GUINEA

The partnership agreement will also provide training for Papua New Guinean scientists in epidemiology, diagnostic capabilities and demography, reflecting the shared commitment of Papua New Guinea and the Project to build national capacity in these important areas.

An early outcome of the agreement is a 478,500 Kina (US$188,000) research program sponsored by the Project to identify the most effective vaccine against pneumonia in Papua New Guinea. Work is scheduled to begin late in 2010 as a precursor to the Government of Papua New Guinea selecting a pneumonia vaccine in 2012.

The Partnership for Health was announced by the Director of the Institute of Medical Research, Professor Peter Siba, at the Pneumonia Colloquium in Goroka, of which the Project was a sponsor. Hosted by the Institute of Medical Research, the Papua New Guinean Department of Health and the World Health Organization, the colloquium celebrated 40 years of pneumonia research in Papua New Guinea and set a path forward to continue combating the impacts of this disease.

Pneumonia Vaccine Research Grant announced

Pneumonia remains the number one cause of death in children under the age of 12 months in Papua New Guinea, and along with malaria, is a leading cause of death in children aged one to five years. Effectively immunizing children against this disease could bring Papua New Guinea one step closer to achieving the United Nations Millennium Development Goal of reducing the under-five mortality rate.

"Pneumonia is a very serious, life threatening disease. Sadly, it continues to receive little or no attention," said Professor Peter Siba, Institute of Medical Research Director.

Attention to the issue and accurate research are key. While the science in this area continues to improve, not all vaccines respond adequately to the particular strain of pneumonia in Papua New Guinea. With the Project's partnership, the Institute of Medical Research will study various vaccines and identify the right one for Papua New Guinea.

Health practitioners in Papua New Guinea

5.5 Community Safety

During this quarter, the Project's Stakeholder Engagement team engaged local communities throughout the Hides and Komo areas in a traffic education campaign to increase awareness and understanding of road safety practices. The Traffic and Construction Site Safety Awareness Program was implemented in response to contractor concerns around local community members near worksites and the gathering of groups at office locations. Information distributed included a:

- Poster and flyer on 'Watch out for trucks'.
- Poster and flyer on 'Traffic and pedestrian safety'.
- Poster and flyer on 'Staying safe on busy roads'.
- 14-page school pack of safety-related games and puzzles.

Figure 5.5 – 'Traffic and pedestrian safety' poster

A Traffic Management Strategy for the Hides area was jointly developed by the Project and the Upstream Infrastructure contractor, which includes installing moveable boom gates at the Hides Quarry Road intersection.

The construction teams are looking for areas along the sides of roads where there is space for dedicated pedestrian walkways, specifically along the Hides Quarry Road and the Heavy Haul Road. The first priority for the footpaths will be to bypass the Hides Quarry Road intersection and link the local communities to the Papa school and church. Opportunities are limited by the steep slopes and earthworks along roads (with no footpaths to traverse the top of the bank of a high cut or fill), but for example, handrails are being constructed out of bushes and logs, where possible.

A plan is also being developed for a fence that is 2.3 meters (8 feet) tall and 4.5 kilometers (2.8 miles) long around the entire HGCP worksite to provide a safety barrier between the public and the construction activities.

Plate 5.8 – Traffic management control measures in place

During this quarter, installation of a chain link fence around the boundary of the Komo Airfield construction site commenced to reduce the risk of accident or injury to the local community from construction activities. A fence, made from felled trees, has also been built along the Komo Airfield Access Road to help restrict pedestrian access.

The on-site contractor has placed flagmen on the road between the Komo Airfield laydown area and Komo Pioneer Camp to control traffic where visibility is limited due to sharp curves in the road. Flagmen are stationed on single-lane bridges between Hides and Komo as well to control traffic and to minimize conflict between the Project, local traffic and pedestrians.

In the Kikori and Omati delta areas, grievances were raised concerning ferry movements making waves and the potential impact to other river traffic. The Project has responded by applying speed limits to ferry movements and paying compensation to parties with valid grievances.

5.6 Community Investment

The Project's community investments aim to promote economic growth and create positive, sustainable impacts in areas including health, education, agriculture, local economic development, women's economic empowerment, and capacity building of individuals and community institutions.

The Project operator is a member of the ExxonMobil group of companies, which has a long-standing tradition of community investment and collaborative engagement with not-for-profit, academic and donor sectors. Where appropriate, the Project will use a tripartite partnership model between the Project, the Government and local communities where all partners contribute to achieving common goals. This will allow communities and the Government to take a more active role in their own development over time as they benefit from the opportunities provided by gas revenues when the Project moves into operations.

The Project's community investment activities include those that emanate from environmental and social commitments outlined in the ESMP as well as philanthropic opportunities that are identified along the way.

5.6.1 Community Investment and Contributions Committee

Ensuring that resources are allocated efficiently, effectively and equitably across the Project area is essential. To achieve a cohesive and considered approach to community support, a CIC Committee and Working Group were established in September to provide internal coordination, strategic oversight and approval of Project-funded community support activities.

The CIC Working Group screens and considers concepts and proposals against criteria including impact, sustainability, strategic value, design and management, value for money and risk. The CIC Working Group then makes recommendations to the CIC Committee for endorsement.

Rapid Implementation Projects

To enable the Project to implement small projects quickly in the field, a Rapid Implementation Projects initiative was launched to cover small-scale projects with a maximum value of 13,500 Kina (US$5,000). Under the system, Socioeconomic, Land and Community Affairs Field Managers are responsible for; screening proposals from their area of operation, sending them for approval to the Socioeconomic, Land and Community Affairs Manager, overseeing the implementation of approved projects, and submitting a brief report on their completion. To speed up implementation, streamlined documented processes were developed and a register of all projects provided to record and track projects and expenditure. The CIC Working Group will play a key role in reviewing and making recommendations on Rapid Implementation Project proposals to the Socioeconomic, Land and Community Affairs Manager, and existing funding mechanisms will be utilized to fund these small projects. At the time of writing, 18 projects were under consideration, all of which are in the upstream area.

5.6.2 Community Development Support Plan

In September, the Project prepared a final draft of its CDSP, which aims to provide opportunities for sustainable development benefits and to avoid or reduce the risk of adverse social impacts on Papua New Guinean communities during Project construction and production. The CDSP was provided to the IESC.

The CDSP is founded on a community-based approach using existing systems and structures to encourage community participation and ownership. This enables community programs and projects to be defined and implemented, incorporating traditional views and local concepts of development.

Based on extensive consultation, key findings from livelihood, local industry and local institutional assessments, as well as the experience of other oil and gas projects worldwide, implementation of the CDSP will focus on three areas:

- **Strengthened Social Resilience** – Enabling communities to effectively respond to potential Project-induced adverse impacts and capitalize on Project opportunities to improve their quality of life. Key focus areas are education, subsistence production and social strengthening.
- **Local Economic Development** – Increasing income-earning opportunities and self-reliant livelihoods for communities in the Project Impact Area. This includes stimulating and supporting local entrepreneurship, removing barriers in the value chain and creating strategic partnerships, which promote the development of commercial enterprise.
- **Community Capacity Building and Partnerships** – Building each community's capacity to identify and meet their development needs in a sustainable way.

Plate 5.9 – Community Capacity Building Coordinator conducting a workshop with the Kutubu Foe Women's Association

CDSP investment initiatives are submitted to the CIC Working Group and CIC Committee for endorsement prior to commencement. At the end of the third quarter, a number of initiatives were underway, as described in Table 5.1.

Table 5.1 – Overview of Community Development Support Plan initiatives

Initiative	Description	Activities Completed
Strengthened Social Resilience		
Support to Functioning Schools in Hides	Strengthen school management, promote the value of education, teacher training, and upgrade of facilities.	School profiling of 15 primary schools started and partnership discussions with school operators initiated.
Strengthening Village Courts	Support the Papua New Guinean Government to strengthen village courts' in the Project area.	Partnership discussions with the Papua New Guinean Government initiated.
Local Economic Development		
Entrepreneurial Support	Support small business development, at the community level, possibly including access to finance, skills training and mentoring.	Project design underway.
Increase Local Food Supply to Camps	Assist local communities to increase the supply of fresh food to camps.	Project design underway.
Support to Women's Groups	Provide support to women in the Project area to improve livelihoods.	Workshop with the Kutubu Foe and Moran Women's' groups to identify opportunities to improve livelihoods.
Community Capacity Building and Partnerships		
Community Entry and Awareness	Provide information to communities on the CDSP, its principles and approach.	Completed in 65 villages in Juha-Hides-Komo, Moran-Kutubu, Gobe-Kikori and vicinity of the LNG plant site.
Facilitate Dialogue with District and Local Level Government	Provide information to Local Level Government on the CDSP and the commitment to undertake a tripartite approach.	Awareness completed in Hides, Kutubu, Kikori, and Central Province. Workshop held with the Department for Community Development.
Community Mapping	Undertake community mapping to understand existing structures and networks and identify 'change agents'.	Community mapping for the LNG plant site villages completed, with 61 community groups contacted.

Plate 5.10 – Community Development Support Officer conducting interviews for community profiling exercises

Plate 5.11 – Local villager in Hides generating income by selling vegetables

5.6.3 Strategic Community Investments

Health/Community Support

The Project continued to support Rotarians Against Malaria to distribute anti-malarial bed nets. In the past, the Project has provided vehicles and helicopters to transport nets to remote villages in the Central, Gulf and Southern Highlands Provinces. Preparations are underway to extend this to remote communities in the Western Province.

The Project has also approved the construction of a Diagnostic Laboratory at the University of Papua New Guinea's School of Medical Sciences to accurately diagnose malaria, tuberculosis, cholera and other diseases. This will be the first integrated infectious disease diagnostic research facility in Papua New Guinea.

The Project continued its collaboration with the Papua New Guinea Institute of Medical Research in the fight against pneumonia, the number one killer of children under 12 months of age in Papua New Guinea, and a leading cause of death in children aged one to five years.

Plate 5.12 – Loading anti-malarial bed nets at Kikori airstrip

Plate 5.13 – Unloading 600 anti-malarial bed nets at Haia Village, West Kikori

In recognition of this and the importance of the United Nations Millennium Goal to reduce the mortality rate of children under the age of five, the Project sponsored the Institute of Medical Research in their upcoming research program aimed at the identification of the most effective vaccine against the strain of pneumonia in Papua New Guinea. This research precedes the Papua New Guinean Government's planned selection of a vaccine against pneumonia in 2012.

Plate 5.14 – Lea Lea footbridge

The Project also provided support to the Port Moresby Cancer Relief Society and Friends That Care, which raise awareness around HIV/AIDS through music and media productions.

In relation to the Port Moresby facilities of Cheshire Homes and City Mission, which serve disabled and homeless children respectively, the Project appointed contractors to provide detailed assessments of maintenance needs.

The Project aims to finalize consultations with communities on land access and community use in relation to the construction of four community meeting platforms near the LNG plant site. A detailed Safety And Serviceability Assessment Report of the Lea Lea footbridge provided by a structural engineer is under consideration and a formal proposal is being developed for consideration by the CIC Committee.

Efforts have also continued to resolve technical issues surrounding the extension of coverage for the radio station FM100 to communities in the Hides area at the northern end of the pipeline. Establishing a transmitter in this area will provide a service to the surrounding communities and also be a valuable tool for the Project to broadcast information about Project activities, advise communities of meetings and promote job and business opportunities.

Women's Economic Empowerment

The Project supports programs that help empower women to drive positive economic change in their communities. In July, the Project nominated a Papua New Guinean woman who has a leadership role within her community and women's association to attend a month long training program. The training program was conducted by the global non-profit organization, the Center for Development and Population Activities, and supported by the ExxonMobil Women's Economic Opportunity Initiative, which have partnered together since 2005 to train female leaders to advance their economies.

The Project sponsored the attendance of several Papua New Guinean women at the Australian Women in Agriculture's annual meeting in August, an event which allows female farmers to share lessons learned, best practices, and network with peers.

In September, along with partner organization the Papua New Guinea Chamber of Mines, the Project began a skills development needs assessment, as a precursor to launching a training program for women in communities around the LNG plant site, including Porebada, Boera, Papa and Lea Lea. It is anticipated that training responding to the particular needs of women in these communities will be launched during the fourth quarter 2010.

5.6.4 Volunteer Programs

Workforce volunteer activities take place in ExxonMobil operations around the globe, providing contract and regular staff with the opportunity to give back to the communities in which they work. In Papua New Guinea, the Project began its Volunteer Program in September with Buk Bilong Pikinini, a library that provides education services with a specific focus on literacy development to children who otherwise would not be able to obtain formal education.

Over four days, 59 members of the Project's workforce and their families sorted and packaged over 38,000 books for distribution to Buk Bilong Pikinini libraries in Papua New Guinea.

6.0 COMPENSATION AND RESETTLEMENT

Working in accordance with the *Land Act 1996* and the *Oil and Gas Act 1998*, the Project aims to minimize resettlement. The Project respects property rights and takes a consultative approach to engaging with impacted communities.

6.1 Compensation

Negotiating In-Principle Compensation Agreements continues to be a core activity of the Project's Land and Community Affairs team. These agreements are associated with compensation for land access as well as environmental and improvement damages. For example, compensation applies to damages to food gardens and economic crops, man-made structures such as fences, drains and dwellings, naturally occurring bush, vegetation, birds, animals or fish, or negative effects on the quality of water resources. Land and Community Affairs uses the 'area method' of calculating compensation associated with environmental damages. Compensation is usually paid to clans simply because land ownership is tied to clans and not to individuals. The 'count method' is used for calculating compensation associated with improvements. This compensation is usually paid to individuals.

Plate 6.1 – Presenting crafts at a local market

Since the Project started, 73 In-Principle Compensation Agreements have been signed by the landowner representatives and Project management. More In-Principle Compensation Agreements are anticipated when the pipeline contractor identifies any additional land needs for quarries, laydown areas or camps.

Land and Community Affairs officers also completed clan land physical demarcation for the Komo Airfield, the Juni Construction Training Facility, and the HGCP.

The Land and Community Affairs team is encouraging clans to mediate and agree on traditional land ownership issues between themselves, promoting messages related to 'sharing' benefits ahead of land ownership. Major land ownership disputes are resolved via a mediation process involving disputing clans and a third party arbitrator, who is usually a Government appointed land mediator.

Once land ownership is confirmed, the Project then progresses with compensation payments based on rates contained in the respective In-Principle Compensation Agreement.

Plate 6.2 – Resettlement discussions

6.2 Resettlement

The Project continues to seek ways to modify the design of certain activities to reduce or avoid resettlement for Papua New Guinean households. For the areas where resettlement is necessary, in association with Project components Resettlement Action Plans are prepared. During the third quarter 2010, Resettlement Action Plan implementation occurred in 11 locations. Of these, two sites were re-assessed as requiring no resettlement, and two planned resettlements were deferred as alternative engineering or routing decisions were considered.

The Project's approach to resettlement is to give physically and economically displaced people the opportunity to, at a minimum, restore their livelihoods and standards of living. Resettlement may be due to:

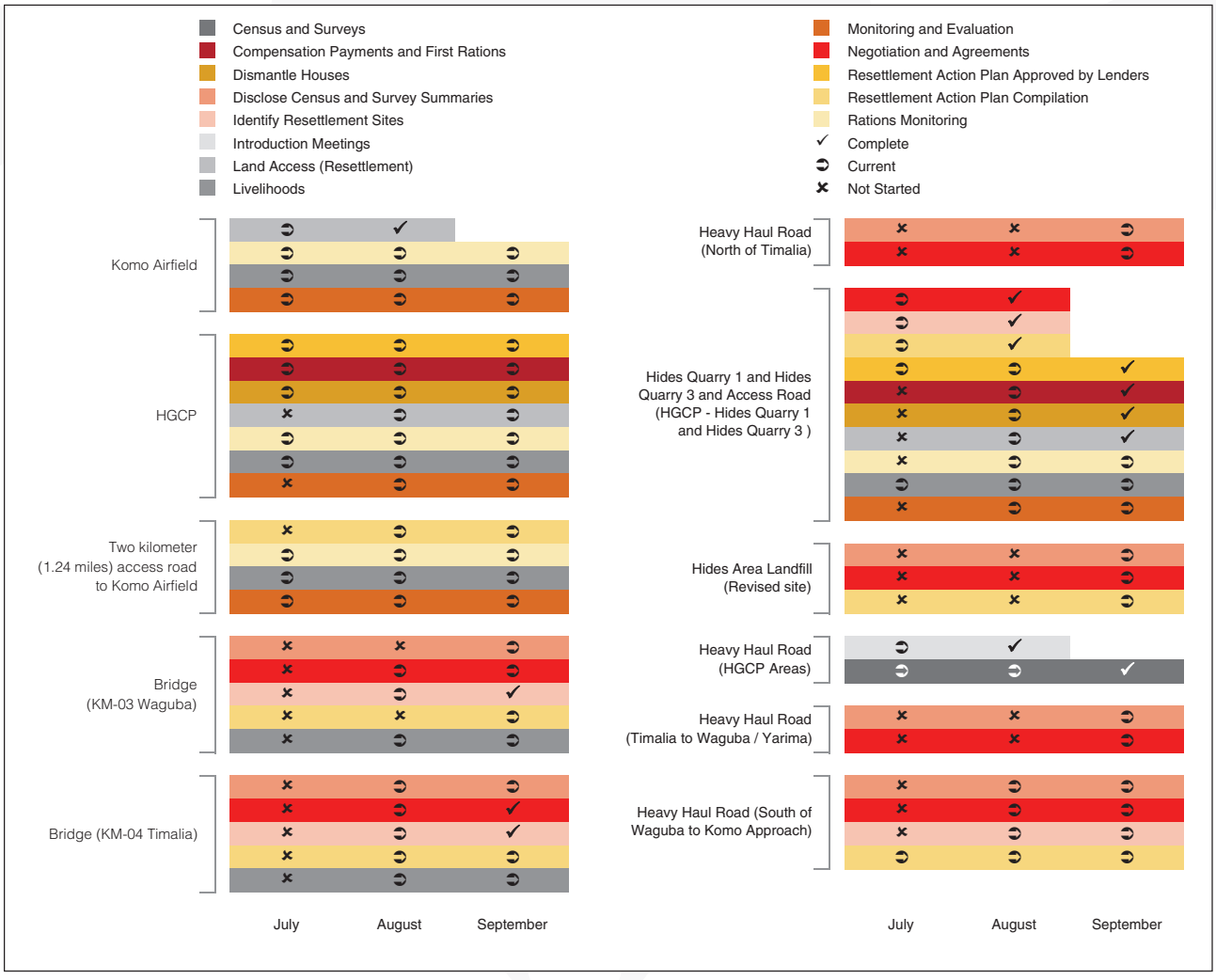
- Physical displacement involving the loss of shelter and assets resulting from acquisition of land associated with the Project that requires those people affected to move to another location.
- Economic displacement involving the loss of income streams or means of livelihood resulting from land acquisition or obstructed access to economic resources (land, water, forest) resulting from the construction or operation of the Project or its associated facilities.

6.2.1 Milestones and Progress

Many of the Project's resettlement activities gained significant momentum during the third quarter, with several milestones achieved and many activities nearing completion. For the Komo Airfield, all cash payments to Papua New Guinean residents were completed with the majority of houses dismantled and households relocated. Similar progress was made at the HGCP site. A Resettlement Action Plan for the Komo Airfield Access Road was prepared, and negotiations for Hides Quarry 1 and Hides Quarry 3 were conducted as a follow-on to initial awareness activities and surveys held during the second quarter 2010.

Figure 6.1 shows an overview of the status of key resettlement activities and tasks for each of the areas progressed during the third quarter.

Figure 6.1 – Status of key resettlement activities



6.2.2 Trends, Highlights, Challenges and Achievements, Lessons Learned

An increased number of experienced development specialists, including anthropologists and agricultural scientists, have joined the Resettlement team to assist with the implementation and monitoring of Resettlement Action Plans. Key activities at Project sites during this quarter included:

Komo Airfield: Activities focused on the payment of outstanding compensation to relocated residents. Cash payments were completed, except for recent conversions of rations and building materials to cash, which will be paid early in the fourth quarter 2010. All but five houses have been dismantled and occupants relocated. Rations delivery was also near completion. A challenge was experienced when numerous new speculative houses were constructed on both the northern and southern ends of the airfield by members of the Undupi clan, one of the absentee clans previously identified. An agreement was reached with the clan and, by the end of the quarter, 130 of the 140 new households were compensated. Outstanding payments related to eligibility disputes remain.

Plate 6.3 – Komo community meeting

Plate 6.4 – New house in Komo

Komo Access Road: Rations delivery proceeded despite some obstacles related to difficulties with service providers. A retrospective Resettlement Action Plan was compiled and will be submitted to the Lender Group during their visit due to start in early October, 2010.

HGCP: Housing agreements concluded with four of the six outstanding households. Separate trade store agreements were concluded with four of the eight store owners in the affected area. The remaining four are still in negotiation but this is not effecting activities as they are situated on the periphery of the required area. Ninety percent of cash payments were completed during this quarter, with the remaining payments to be made into interest bearing deposit accounts and Kundu Saver Accounts during the fourth quarter 2010. Relocation of households continued, with 48 houses dismantled in preparation for relocation. The remaining eight will be dismantled for relocation during the fourth quarter 2010.

Plate 6.5 – Rest house in the HGCP area involved in resettlement

Heavy Haul Road: Activities were postponed following a revision of the proposed road alignment intended to minimize resettlement. Since the area just north of the Timalia River was identified as a critical priority for upgrading of the Timalia Bridge, disclosure, planning and negotiations have focused on this area. A Resettlement Action Plan was completed and agreements concluded with six households in this area who will require physical resettlement.

Landfill: Investigations continued with the objective of reducing resettlement at the Hides landfill site area. The Resettlement Action Plan for the final landfill site is planned for the fourth quarter 2010.

Quarries: Relocation was completed for households inside Hides Quarry 1, Hides Quarry 3 and along the access road between the HGCP and the quarries. This included completion of the Resettlement Action Plan, negotiations and agreements, identification of the resettlement site, payment of cash compensation for relocated residents, and dismantling and relocation of households. Outstanding account payments were processed following confirmation that the new accounts had been established.

Pipeline camps and components: Land access for pipeline components were rescheduled to early 2011 to align with Project priorities.

Wellpads: Land access priorities for wellpad components were rescheduled to early 2011.

7.0 WORKFORCE

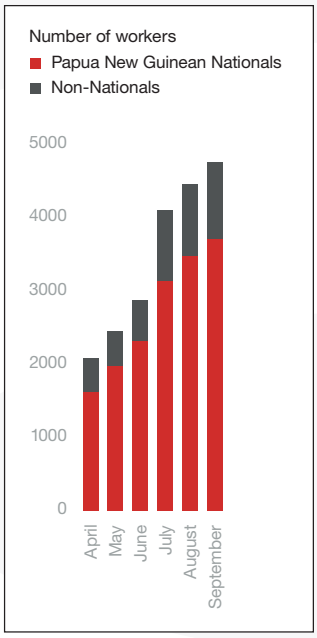
The Project's initiatives in the areas of workforce health, training and development are scaling up as the workforce grows and greater numbers of Papua New Guinean citizens are recruited.

7.1 Development

The Project aims to increase the number of Papua New Guinean employment opportunities and build national employee skills over the life span of development, in accordance with the Project National Content Plan.

From April to September, 2010, the Project's workforce more than doubled, scaling rapidly during this quarter as activities began to transition from early works/site preparation activities into the early construction phase on a number of sites as shown in Figure 7.1.

Figure 7.1 – Construction workforce



More than 3,700 Papua New Guinean citizens were employed on Project activities at the end of September. This represents 78 percent of the Project's total construction workforce. More than 2,500 of these workers were sourced through Lancos.

In addition to the recruitment of Papua New Guinean citizens for construction-related activities, the Project has recruited 22 personnel as part of a Graduate Training Development Program. These recruits are recent Papua New Guinean university graduates with degrees in Engineering, Business and Finance. They have completed an initial Project-specific training program, prior to being assigned within the Project team in a variety of engineering, Project controls, administration and finance roles at locations including Brisbane, Singapore and Papua New Guinea.

A further 15 graduates from within Papua New Guinea have entered the Graduate Training Development Program in preparation for Project roles.

7.2 Workforce Training

To address a shortage in qualified construction workers in Papua New Guinea, and to maximize long-term employment opportunities for Papua New Guinean citizens, the Project is providing training facilities at several locations within Papua New Guinea.

"Working and training among other nationals broadened my perspective of the Project and my career as an individual."

Lina Dawson
Business Management Graduate
at the Port Moresby Technical College

Two Construction Training Facilities are being built, one at Port Moresby on the existing Port Moresby Technical College site and one at Juni near the HGCP site. The Port Moresby Construction Training Facility is nearing completion and expected to accept its first 80 civil construction laborer trainees during the fourth quarter 2010. An additional 80 trainees will commence each fortnight, until the facility's capacity of 240 on-site trainees is reached.

Additionally, a Production Operations Training Centre was opened in Waigani, Port Moresby in September to train operations and maintenance technicians. This facility provides training for Papua New Guinean citizens who will work in the LNG plant operating facilities after Project completion and commissioning.

Plate 7.1 – New Construction Training Facility being built at the Port Moresby Technical College site

Plate 7.2 a–b – Production Operations Training Centre classrooms and science laboratory

The following sections provide an outline on the status of all training facilities and training programs already underway.

7.2.1 Construction Training

Training of Papua New Guinean citizens for roles and skills in support of construction activities are provided in two areas:

- The Project provides specific technical skills training with certification to an internationally accredited standard.
- The contractors provide a range of training courses for their construction employees, including safety and health requirements, and cultural awareness.

Project Provided Training

The Project has established a training program and curriculum to provide courses accredited to the internationally recognized Australian Quality Training Framework. The training program offers training for Papua New Guinean citizens in a variety of construction-related skills, including civil, mechanical, electrical and instrumentation, scaffolding, painting and insulation. Training courses are delivered by Papua New Guinean trainers.

Trainee recruitment continues from the four villages near the LNG plant site; Papa, Lea Lea, Porebada and Boera. Since training commenced in April, 2010, 152 male and 40 female trainees have graduated with certificates in civil construction. With 76 male and 20 female trainees enrolled as civil construction laborers, training continues at an interim training facility at Gordon until the Port Moresby Construction Training Facility is completed.

Approximately 2,500 Papua New Guinean citizens are expected to be trained in Port Moresby to meet contractor demands by the end of March, 2012.

Contractor Provided Training

Contractors continue to provide on-site construction training to help develop the skills of Project employees and drive greater safety awareness. Highlights during this quarter included a Fundamentals of Safety Training Program conducted for front line supervisors and an Omati River Dredging workshop held in Port Moresby.

7.2.2 Operations and Maintenance Training

During this quarter, induction and preliminary training continued for the first intake of 76 operations and maintenance trainees, of which 20 are women, at the new Production Operations Training Centre in Waigani, Port Moresby. The trainees are embarking on a comprehensive training program where they will spend the first 18 months in Port Moresby completing Foundation and Basic Oil and Gas Training before going overseas to complete 12 months of Advanced Skills Training. They will then return to Papua New Guinea to commence specific training on the newly constructed facilities and will ultimately become some of the future Operations and Maintenance Technicians at the HGCP site in the Southern Highlands, or at the LNG plant site outside Port Moresby.

The newly established Production Operations Training Centre provides accommodation and classroom facilities for trainees and trainers. Five of the Centre's six trainers are Papua New Guinean citizens.

Plate 7.3 – Presentation at the official opening of the Production Operations Training Centre

Plate 7.4 –Students from the first intake

7.3 Health Management

During this quarter, significant activity continued for both contractor pre-mobilization and post-mobilization support. The following Project-wide procedures were also distributed in September:

- Return to Work after Rotation Medical Assessment.
- Procedure Manual for Injury and Illness Notification and Reporting.
- Tuberculosis Control Program Implementation Manual.

In addition, learnings from the Malaria Control Program (MCP) field assessments were shared with contractors to help strengthen program implementation.

In support of upstream access to appropriate tuberculosis diagnostic capability, the first transportable containerized x-ray was installed at the Kopi Shore Base Camp and is supported by a full-time radiography technician.

Surveillance and support in response to the ongoing cholera outbreak in Papua New Guinea remained a focus during this quarter, with the first Project related cases emerging at the LNG plant site near Port Moresby in late September.

7.3.1 Pre-Mobilization Health Support

By the end of the quarter, all major contractors had mobilized health managers. Receipt and review of pre-mobilization health plans also continued.

Plate 7.5 – Clinic x-ray during transport

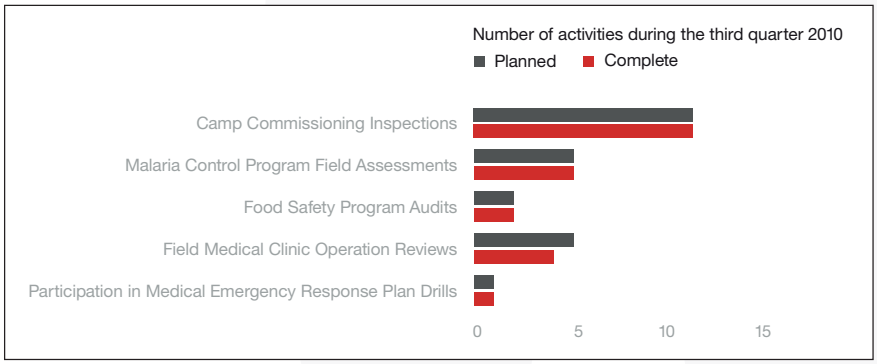
7.3.2 Post-Mobilization Health Support

As part of the Post-Mobilization Health Support Program, the Health team captures a range of leading indicators[1] including:

- Results of Project camp health assessments (food, water, accommodation, general sanitation).
- Malaria Chemoprophylaxis Compliance Program (MCCP).
- MCP field assessments.
- Contractor Health Program audits.

The Project continued to achieve the overall 90 percent completion target for post-mobilization activities as shown in Figure 7.2.

Figure 7.2 – Key planned versus completed post-mobilization health activities



7.3.3 Camp Commissioning Inspections

Results from site inspections by the Health team's in-country health advisors[2] are based on standardized inspection score sheets to ensure a consistent approach. This inspection program aims to minimize the potential for diseases and illnesses by identifying areas for improvement in advance of camp start-up, and implementing a best practice approach in areas such as food safety, water quality, general sanitation and vector control. For the third quarter, 11 Category 1 and 2[3] sites were inspected, along with five hotels/lodges utilized

1 Leading indicators provide advanced warning of conditions such as poor water quality, which may lead to adverse health outcomes such as water borne illness.

2 The Project employs health advisors to monitor project health requirements.

3 Category 1 – Sites established and managed by the Project or contractor,
Category 2 – Third party facility completely utilized by the Project or contractor.

by the Project. Results for camp commissioning reflect an ongoing improvement at sites as incidents are resolved through follow-up inspections.

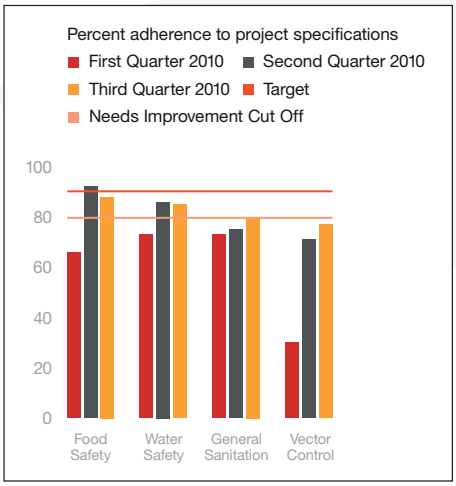
Plate 7.6 – Vector control being implemented at Nogoli

Plate 7.7 – Water sampling at Kopi

Category 1 and 2 results (see Figure 7.3) show the following trends:

- Continued improvement in general sanitation due to ongoing improvements to contractor camp management processes.
- Continued strong performance in food safety. A slight decrease is shown due to a number of new contractor camp start-ups.
- Continued acceptable levels of water safety with room for slight improvement, again particularly in light of new camp mobilizations.
- An ongoing increase in the mobilization of the primary vector control subcontractor.

Figure 7.3 – Category 1 and 2 site cumulative adherence to Project specifications by public health category



7.3.4 Lagging Indicators

The Health team captures and reports a range of lagging indicators[4] including the number of health indicators and actions arising from them[5]. Table 7.1 summarizes health incidents for this quarter and year-to-date.

Table 7.1 – Health incident summary

Incident Type	Number of Incidents During the Third Quarter 2010	Year-to-Date
Infectious Disease Cases		
Serious malaria	2	2
Vector borne disease, other	0	0
Active tuberculosis	0	2
Spread of active tuberculosis to close contacts	0	0
Foot or skin conditions	5 minor skin and foot first aid cases	96 first aid cases 3 medical treatment incidents

4 Lagging indicators are direct measures of adverse health outcomes (e.g. reportable diseases).

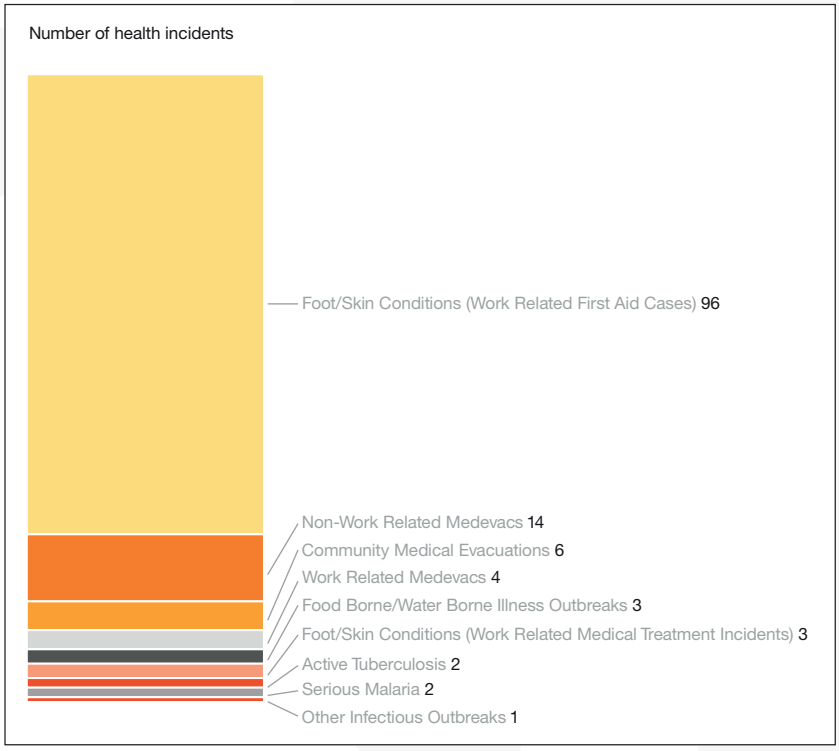
5 Contractors also report non-stewardable (non-work related) health incidents.

Incident Type	Number of Incidents During the Third Quarter 2010	Year-to-Date
Summary of Project Outbreak Events		
Vaccine preventable disease outbreaks	0	0
Food/water borne disease outbreaks	0	3
Infectious outbreaks, other indicators	0	1
Medical Evacuations		
Medical evacuations (work related)	2	4
Medical evacuations (non-work related)	7	14
Community medical evacuations	4	6

Trends emerging during this quarter highlighted an increased number of non-work-related medevacs and community medevacs (Table 7.1). This is consistent with the increase in Project activity; however, the Project Health team has started a monthly review of medevacs to identify opportunities for Project learnings that will be communicated as part of a planned health workshop later this year.

As shown in Figure 7.4, the number of foot/skin condition first aid cases remains significant for the Project year-to-date. In response, a comprehensive Foot Hygiene Training Program has been developed, which is detailed in *Section 7.3.6 Strategic Initiatives*.

Figure 7.4 – Contribution of health incidents year-to-date



In addition, the Project encountered its first serious malaria case for 2010 in a non-immune business traveler, who has since recovered. A full investigation highlighted a number of lessons learned that were shared across the Project through information bulletins such as Safety, Security, Health and Environment Alerts to all workers.

The cholera outbreak in Papua New Guinea remains of significant interest to the Project, with the first confirmed case associated with a Project worksite notified at the LNG plant site in late September. The Project Cholera Taskforce continued to monitor, issue appropriate advice, and develop additional material, such as case and site management checklists, to support sites at which cholera cases may emerge.

At the end of September, a Cholera Response Matrix was developed for the Project including information on recommended worksite responses based on three alert levels:

- Low – No known cases in the local community or, sporadic imported cases only.
- Medium – Known cases spreading in local worker pool communities or close geographic proximity to a Project worksite.
- High – Known cases spreading in the local community and confirmed site case(s).

7.3.5 Malaria Control Program and Malaria Chemoprophylaxis Compliance Program

The Health team tracks contractor adherence to these programs through monitoring, testing and MCP field assessments.

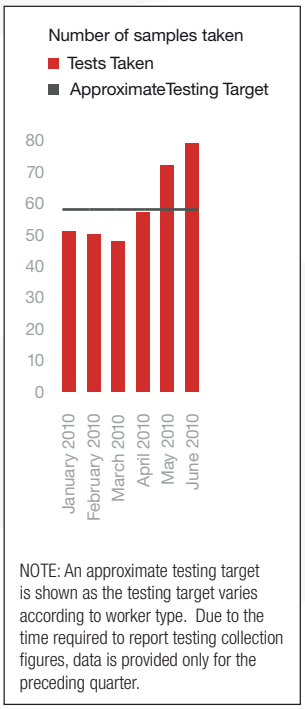
A review of in-country personnel lists identified that 16 subcontractors have not yet enrolled in the Program, the Project Health team is actively engaging with the relevant contract owners to rectify this.

Further investigation into the MCCP monthly testing target has identified that the delay from the time of test selection to test notification and analysis was the reason for the testing target gap reported in the second quarter. Consequently, all MCCP related data will be reported for the preceding quarter in this and future reports, as shown in Figure 7.5.

The MCCP non-detect results (Figure 7.6) have risen since April, 2010, reinforcing the need for continued education and surveillance programs to ensure workers are following required chemoprophylaxis requirements. In response, the Health team has shared key learnings from MCP field assessments with the Project and contractors, and increased the testing percentage for relevant contractors. In addition, each MCCP non-detect is reviewed by the Health team in conjunction with the relevant contractor to identify any required improvements in MCCP controls.

The number of MCP field assessments completed for the quarter met the required minimum target of five (Figure 7.7) and field audit results show an improvement in adherence to MCP requirements by contractors.

Figure 7.5 – MCCP testing target results



NOTE: An approximate testing target is shown as the testing target varies according to worker type. Due to the time required to report testing collection figures, data is provided only for the preceding quarter.

7.3.6 Strategic Initiatives

The Health team continued its support for Project-wide initiatives, launching a comprehensive Foot Hygiene Training Program called Gutpela Lek, meaning “Good Feet”.

Figure 7.6 – MCCP contractor non-detect results

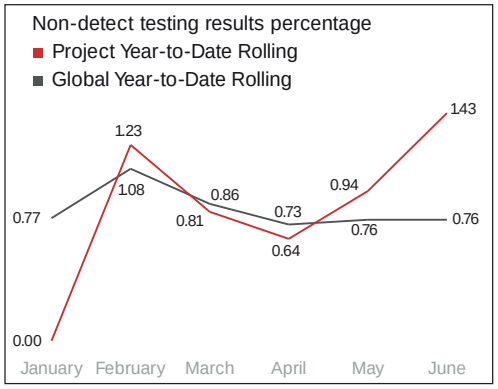
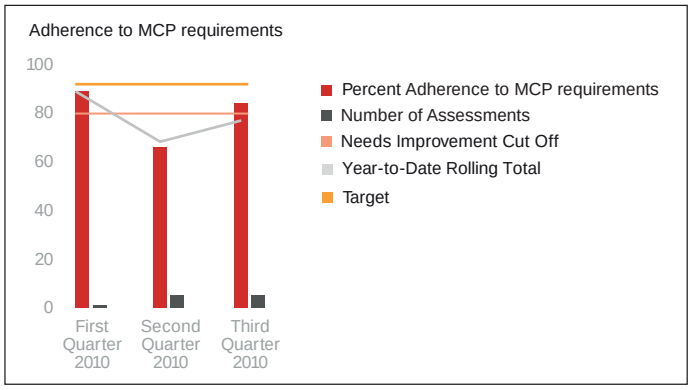


Figure 7.7 – MCP field assessment adherence to Project requirements



This Program incorporates a series of 13 weekly toolbox talks about preventing foot fungus and blisters delivered by trained healthcare practitioners, supervisors and workers. The Program aims to create awareness of common foot conditions in Papua New Guinea and how to prevent them. Each toolbox session has a series of flip charts with a script, a key message poster and at least one practical demonstration. Gutpela Lek is one of the key recommendations from the Project's Foot Hygiene Taskforce.

Plate 7.8 – Gutpela Lek "Good Feet" materials

Work also continued during this quarter on a comprehensive contractor reporting framework for health data which will assist contractors with reporting the required health metrics.

In addition, to assist in the collection and reporting of infectious disease cases for the Project, a selective trial of the Medical and Vector Surveillance Database is being undertaken during the next quarter. The Database aims to capture infectious disease surveillance data from visits to medical clinics at Project worksites and allow analysis of the data to better inform Project health management planning and execution.

The use of disease surveillance data that would be captured by the Medical and Vector Surveillance Database was shown to be of significant value during this quarter when the Project Health team worked directly with the Upstream Infrastructure contractor to identify a spike in the incidence rate of upper respiratory tract infections at certain Project worksites. This data allowed the contractor to identify the potential for a significant outbreak and implement effective localized health responses including additional support for workers to attend influenza immunization clinics and reinforcement of personal hygiene measures such as cough etiquette, hand washing and effective cleaning and disinfection of surfaces in the camp.

7.3.7 Pre-employment medical screening

A significant component of the Project's health strategy involves medical screening of employees at various stages including pre-employment, before traveling (for expatriates) and following return to work from rotation.

Apart from ensuring that only medically fit employees work on the Project, the screening processes allows data to be gathered to inform health planning and implementation.

The Project is working with community-based medical practices in Papua New Guinea to form an approved panel of general practitioners who conduct pre-employment medical screening tests.

Plate 7.9 – A prospective employee having blood collected for a tuberculosis test

To date, four practices with six doctors, who have been trained within Papua New Guinea, have been selected to perform pre-employment medical screening.

This process not only provides quality controlled fitness for work assessments but also offers advice on the referral, treatment and counseling of unfit applicants.

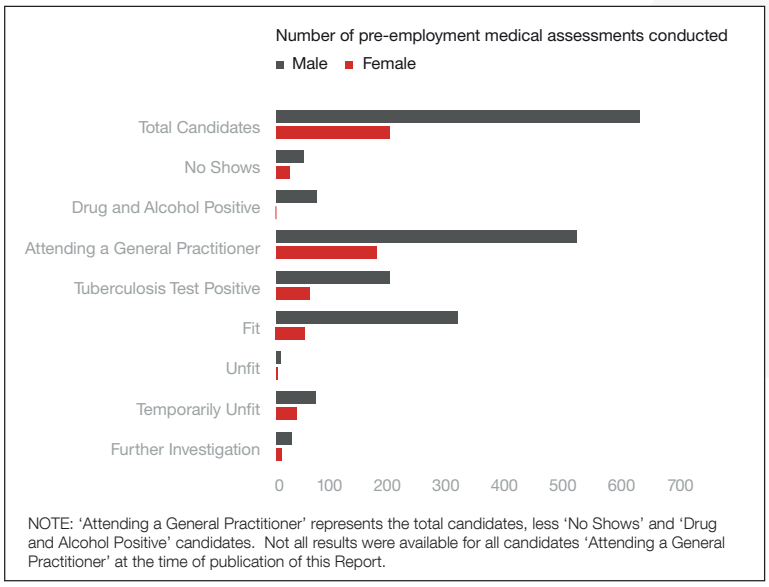
During the next quarter, this pre-employment medical screening program will expand. All medical practices in Port Moresby will be invited to become accredited for pre-employment medical examinations for Project positions. Practices that are uncertain about the requirements will be given advice on how they can become accredited.

Figure 7.8 summarizes results from medical screening conducted since April, 2010.

As shown in Figure 7.8, the following key conclusions can be drawn:

- Fewer than 10 percent of applicants were drug and alcohol positive.
- Of applicants attending a General Practitioner assessment, 36 percent had a positive test for tuberculosis (this test does not distinguish the individuals who have active disease, this is confirmed by other examinations and tests). Those who are suspected of having active tuberculosis are referred for community based specialist assessment and/or treatment.

Figure 7.8 – Pre-employment medical assessment findings



NOTE: 'Attending a General Practitioner' represents the total candidates, less 'No Shows' and 'Drug and Alcohol Positive' candidates. Not all results were available for all candidates 'Attending a General Practitioner' at the time of publication of this Report.

- Approximately 50 percent of applicants are initially assessed as fit for training. Of the remaining 50 percent, 1.4 percent are not fit for training and the remainder are either temporarily unfit or require further investigation and support. When those in the last two groups re-present after treatment, the fitness rate increases to 65 percent.
- To date, 23 percent of all presenting applicants have been female. Male applicants currently have a slightly higher fitness rate than females.
- Unfortunately, around 8 percent of applicants failed to present for their appointed medical assessments. However, some of these applicants did present at a later date.

7.4 Safety Management

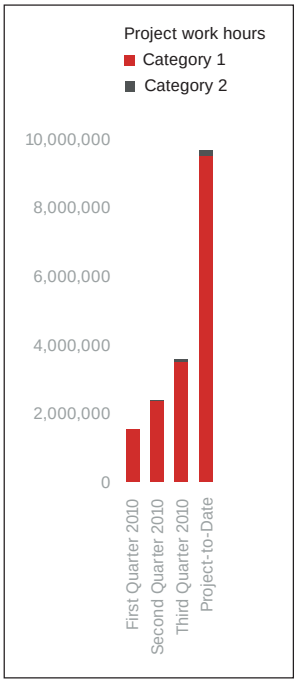
The Safety Vision for the Project is *"Nobody Gets Hurt"*. This Vision has enabled the Project to continue a downward trend in incidents as a result of improved hazard identification, better understanding of risks specific to working in Papua New Guinea (such as steep terrain, unique flora), effective communication of hazards and mitigation of hazards through toolbox talks, job safety analysis, observation and interaction, and safety alerts. A key focus during the third quarter was gathering lessons learned from early works activities and sharing those lessons with contractors preparing to mobilize.

Major activities performed during this quarter included field visits by Project executives to reinforce safety expectations and discuss continuous improvement opportunities, as well as field visits to all early works sites to gather safety, security, health and environmental lessons learned and share those with major contractors preparing to mobilize.

Numerous workshops and training programs were also conducted during this quarter for Project teams and contractors. These included:

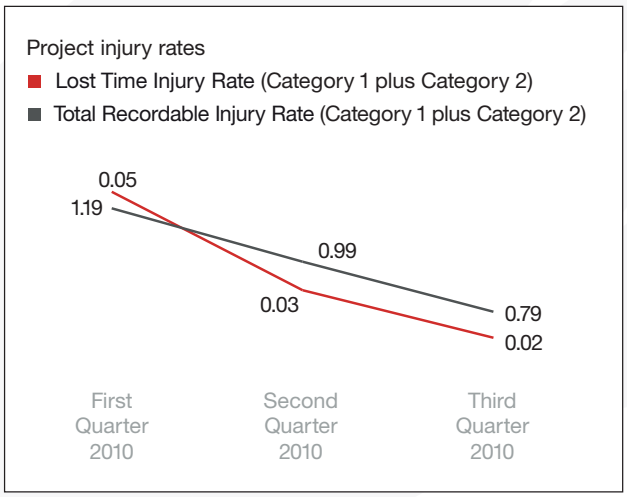
- A workshop with the Project team and EPC contractors to share lessons learned from early works and previous projects.

Figure 7.9 – Project work hours for Category 1 and Category 2



- A workshop with key non-EPC contractors focusing on safety expectations and building safety, security, health and environmental capability.
- Field Safety in Uncontrolled Environments training for 68 Project team members. The training focused on hazard identification/ mitigation and emergency response planning for small work teams in remote frontier areas, as presented in *Case Study Three – Field Safety in Uncontrolled Environments*.
- First Line Supervisor Fundamentals of Safety training regarding safety leadership, hazard management tools and critical risk activities.

Figure 7.10 – Trend analysis year-to-date



- An Emergency Response workshop focused on roles and responsibilities, emergency plan integration and drills for those activities conducted in Papua New Guinea's highlands.

7.5 Worker Welfare and Conditions

Worker welfare and workers' employment conditions are critical to the Project's success. The Project employs workers, both men and women, from a broad range of nationalities and cultures, who in many cases live together in camps. Ensuring workers are recruited, trained and treated fairly in the workplace is a priority. Their accommodation needs are also carefully considered to ensure they are fair and equitable.

7.5.1 Camps

Camps are mobilized and demobilized as construction requirements change so that workers are accommodated close to where the work is being undertaken. Camps for the upstream infrastructure contractors are in various stages of construction, operation and demobilization. A total of 32 camps of varying sizes, ranging from 100 to 1,400 beds, are planned for upstream infrastructure contractors.

At the LNG plant site, the Pioneer Camp is operational with capacity to house 800 workers. This Camp will house workers who will complete early civil works as well as the workers who will build the main construction camp. Once complete, this Camp will accommodate approximately 8,000 workers. More than 80 percent (41 out of 49) of the current camp staff employed are women recruited from local villages who are bused from their homes daily. Workers who do not come from local villages can be accommodated in the camp, and female and male rooms and facilities are located in separate blocks. The female blocks have additional security measures.

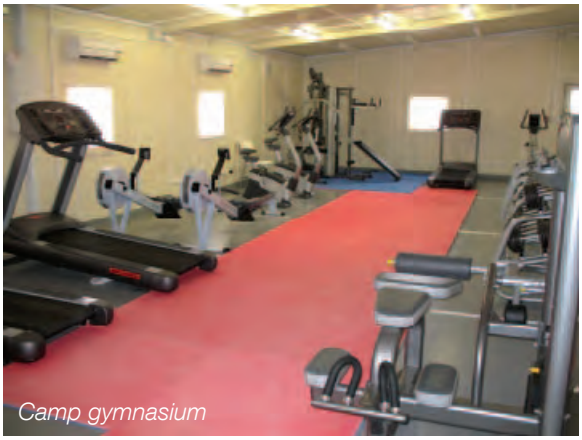
As both male and female workers spend most of their time on the worksite and at camps, recreational facilities have been incorporated. They include a fully equipped gymnasium, pool tables, table tennis and internet rooms. A large central dining area provides all meals and a laundry service is also offered to all workers.

A Cross-Cultural Training Program has been developed to help embed cross-cultural understanding within the Project. This training focuses on understanding and managing cross-cultural differences in the field, including conflict resolution. During this quarter, most contractors completed some cross-cultural training, with close to 250 employees trained. Training will continue across more worker teams during the fourth quarter 2010.

Plate 7.10 a–d – LNG plant site Pioneer Camp

View of the accommodation buildings

Camp recreation room



Camp gymnasium

Bedrooms in accomodation buildings

Camp Policies and Community and Worker Safety

All camps have a 'closed camp' policy for expatriate workers, which means they may only leave the camp for work. This is to minimize impacts to local communities associated with the influx of workers.

In some cases, nationals will live inside the camp, while in others, nationals who live locally, will continue living at home. In the latter case, assessments of the risks to workers' health, safety and security are completed. These are supported by action plans mitigating any risks to themselves and the community through a range of practices such as:

- Busing nationals from their homes to work on a daily basis.
- Ensuring drivers are well trained, regularly tested and monitored in relation to their driving performance.
- Educating communities about safe pedestrian behaviors.
- Installing traffic control measures, for example, traffic wardens during peak busing periods.
- Installing speed limiters and alarms on buses.
- Checking vehicles for roadworthiness and compliance with safety procedures such as the use of seat belts and strobe lights for visibility.

CASE STUDY THREE:
FIELD SAFETY IN UNCONTROLLED ENVIRONMENTS

Papua New Guinea is one of the least explored countries on earth largely due to its rugged, mountainous terrain and dense vegetation. Many of the areas in which the Project's Socioeconomic, Land and Community Affairs and Environmental survey personnel are working in remain largely unexplored, even by the indigenous people who have lived in the immediate area all their lives. This environment presents unique challenges to both individuals and operational teams required to work in 'unchartered' or 'uncontrolled' environments, bringing a potential increase in risk to Project personnel.

As part of pursuing the Project's Safety Vision of "Nobody Gets Hurt", a course has been developed which allows participants to acquire and practice risk identification and mitigation strategies to prepare for, and conduct, safe and effective activities when in the field.

The course is based on the book *Field Safety in Uncontrolled Environments: A Process-based guidebook*, written by Stephen R. Oliveri and Kevin Bohacs, and published by the American Association of Petroleum Geologists, The Division of Environmental Geosciences and ExxonMobil Upstream Geoscience.

Clearly defined roles and responsibilities for each participant in a field team are fundamental to working safely in an uncontrolled environment. Key positions within each field team include:

Activity Leader:

- Coordinates overall activity, safety and emergency response.
- Stays out in front of all groups during movement ("on point").

Safety, Security, Health and Environment Watch:

- Maintains safety watch, enforces safety rules, maintains trip safety log.
- Carries outcrop safety, communications, and response equipment.
- Stays at rear of group during movement ("at sweep").
- Provides initial first aid in the event of an emergency.

Logistics Coordinator:

- Assists with safe conduct and general health and condition of the group.
- Issues safety equipment to participants as needed (vests, hard hats etc.).
- Deploys traffic control devices at roadside stops as required.
- Manages uninvolved groups during an emergency.

Prior to undertaking the course, participants must be certified in advanced first aid. Each Field Safety in Uncontrolled Environments course is conducted over two concurrent days by two instructors with eight to sixteen participants.

Day one of the course is a theory based training module teaching a standardized methodology and process for conducting risk assessments as well as specific activities to be undertaken infield to mitigate risks and capture learnings. Planning field activities, incident management, and reporting protocols are also reviewed.

Day two is a practical field based exercise, which allows participants to rehearse key roles and responsibilities while applying mitigation plans developed during the previous days training. This part of the course includes a 5-8 kilometer (3-5 mile) trek, testing both individual and group responses to a series of escalating scenarios participants could encounter while in the field.

Other important aspects emphasized during the course include:

- Recognizing the differences in capabilities and risk tolerances within each group.
- Helping familiarize participants with potential hazards and how to recognize them in unfamiliar environments by using a structured Risk Identification and Assessment Program.
- Communicating expectations and requirements clearly via documented plans and procedures.
- Developing plans to mitigate and limit the potential for at-risk behaviors in an uncontrolled environment.

During this quarter, 68 Project and contractor personnel completed the course and it is expected that a further 50 will be trained by the end of 2010.

CASE STUDY THREE:
FIELD SAFETY IN UNCONTROLLED ENVIRONMENTS

Field Safety in Uncontrolled Environments training course

Pre-start brief prior to field exercise

Job Safety Analysis activity prior to embarking on field exercise

Simulating medical emergency using infield resources

Working in the Papua New Guinean terrain

Overview of Landing Zone LZ1 immediately west of Moro Airport

Village Liaison Officers assisting field staff execute pre-construction surveys in remote areas

Working and environmental conditions reflecting close and dense rainforest

8.0 CONFORMANCE

The Project measures its performance and identifies areas for improvement through verification, monitoring, assessment and audit procedures.

8.1 Verification

During this quarter, the Project conducted over 200 site verifications across all active construction worksites. This involved a Project representative visiting sites and working with contractor personnel to verify the implementation of environmental mitigation and management requirements. Summary site verification reports listing the major field observations, non-conformances and other actions were completed and provided to site managers for action. In addition to Project led verifications, contractors undertook independent verifications, bringing the number of verifications to over 300 for the quarter.

Each field observation and non-conformance was reported in accordance with designated severity levels (refer to *Appendix 3*) and assigned a corrective or remedial action, which will be tracked to closure. Field verifications completed for each Project area by contractor and the Project are presented in Table 8.1.

The Project is also in the process of appointing full-time Field Environmental Advisors to each site/contractor. This will enable weekly reports summarizing verification activities to replace the tracking of discrete verification visits.

By the end of this quarter, ten Project field environmental staff comprising two Field Leads and eight Field Environmental Advisors were appointed to sites such as Kopi, Gobe, the LNG plant site and the Hides area.

Table 8.1 – Number of field verification visits during this quarter

Area	Verification Visits
Contractor	
Hides	11
Northern Logistics Route	39
Kantobo	9
Southern Logistics Route	16
Komo Quarry (Q-A1) and access road	12
Komo Airfield	9
Project	
Kopi/Kopi Scraper Station	14
Gobe Camp and laydown (includes Gobe to Mubi River Road) and Kaiam Bridge	48
IDT10 Camp	9
Central Processing Facility/Ridge Bypass Road/ Hedinia laydown area	14
Kantobo laydown yard/Camp and access roads, Samo quarry	5
LNG plant site	24
Port Moresby Construction Training Facility	4
Mendi (includes Oyarip Camp, Bridge ME-16, Tamadigi laydown area)	24
Kobalu	17
Wellpad A and Camp/HGCP and Hides Quarry Roads	42
Juni Construction Training Facility	16
Komo Airfield/Heavy Haul Road	32

8.2 Monitoring

The Project has developed an Environmental Monitoring Plan as part of the ESMP. The Environmental Monitoring Plan aims to; define environmental monitoring requirements, summarize the Project's process for inspection and verification of management and mitigation commitments, define the process for periodic assessment and audit to evaluate the implementation of the environmental program, and report to the DEC in relation to monitoring, verification, assessment and audit programs.

The Environmental Monitoring Plan was granted interim approval by the DEC and subsequently issued to the Lender Group during this quarter.

8.3 Assessments and Audits

As part of Project commitments, monitoring is conducted during Project construction and operations. In August, the IESC published their first Environmental and Social Compliance Monitoring Report about Project activities on www.pnglng.com (refer to *Appendix 2* for a summary of findings). The IESC is an independent auditor working on behalf of the Lender Group. The second IESC monitoring visit is scheduled for October, 2010.

8.4 Incidents, Non-Conformances and Corrective Action

8.4.1 Incident Summary

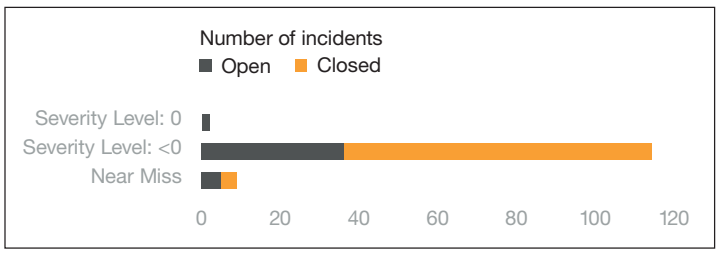
Project-wide, 126 environmental and regulatory incidents occurred during this quarter. Of these, 124 were classified as Severity Level <0 (very minor) and two as Severity Level 0 (minor). The higher number of minor incident reports indicates a good reporting culture.

The incidents presented in Figure 8.1 include:

- 2 environmental compliance incidents (deviations on land cleared versus planned at Komo).
- 99 hydrocarbon and chemical spills (average of 6 liters per spill, predominately caused by equipment failure).
- 12 wastewater spills (overflow of treatment facilities, such as rainfall events and pump failure).
- 2 wastewater exceedances of some parameters in the Project Water Management Plan, however still in compliance with the Environmental Permit.
- 1 involving aggregate removal.
- 1 relating to concrete slurry.
- 9 environmental near misses, all related to preventing spills reaching a permeable surface.

Figure 8.1 – Environmental incident summary

Figure 8.2 – Project incident closure status



Corrective actions were assigned to all environmental and regulatory incidents and most have been fully implemented or are in the process of being implemented and the incidents then closed.

Figure 8.3 – Environmental incident and near miss causal factors

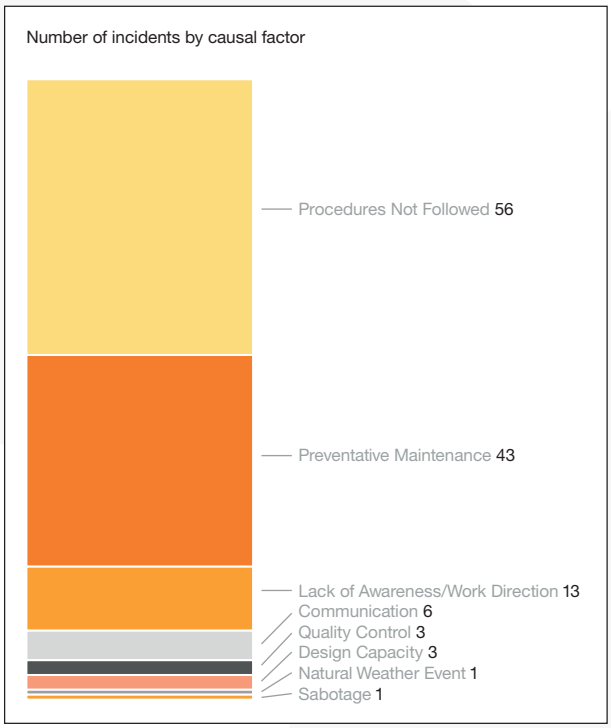
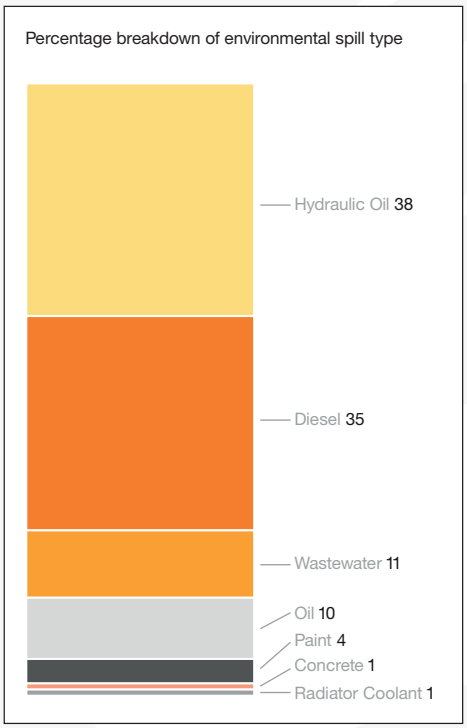


Figure 8.4 – Environmental spill type



During this quarter, there was a proactive focus on spill prevention and response across the Project. The Environmental Leadership Challenge – Spill Prevention and Awareness Training, which was initiated in the second quarter, was completed for operators, drivers and supervisors. Spill risk assessments were also conducted at worksites and various actions implemented to address identified risks. Action continues to be undertaken in terms of proper fuel handling, storage and transport procedures, as well as a continued focus on training for contractor teams.

Notable aspects related to incidents for this quarter included:

- The number of hours worked doubling since the second quarter, resulting in the number of hydrocarbon spills increasing. However, the spill rate per 200,000 work hours also increased, which suggests continued awareness training is necessary.
- Ten of the 12 wastewater spills were from the IDT10 wastewater treatment plant. This plant has been replaced with a new unit.
- Two environmental compliance incidents involving deviation from surveyed land boundaries that led to additional procedural and communications measures, such as a contractor surveyor to be on-site during clearing works.

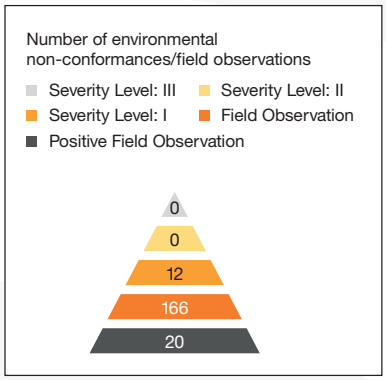
Plate 8.1 – Field Environmental Advisor conducting Spill Prevention and Response Awareness Training

8.4.2 Non-Conformance and Field Observation Performance

Across the Project, the following non-conformances and field observations were reported:

- 0 Level III and Level II non-conformances.
- 12 Level I non-conformances.
- 166 field observations.
- 20 positive field observations.

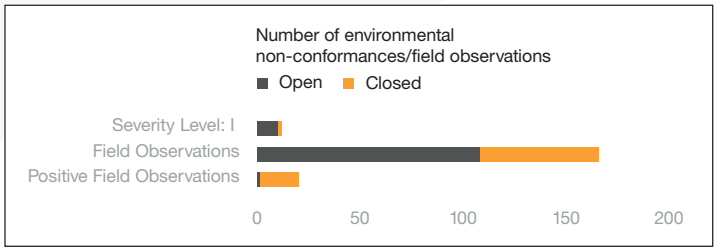
Figure 8.5 – Environmental non-conformance/field observation summary



Corrective actions were implemented to meet ESMP requirements for all reported non-conformances and field observations. A 30-day target was established as the goal for closure, providing an improvement in close-out rates since the first quarter 2010. Figure 8.6 demonstrates this quarter's closure status.

Verification checklists implemented in the third quarter showed a decrease in the number of field observations and non-conformances related to waste management, erosion and sediment control, and spill prevention and response. The Project's Information Management System, which was initiated in the second quarter, was further developed during the third quarter to provide greater support to Field Environmental Advisors.

Figure 8.6 – Project field observation and non-conformance closure status



With the increased operation of wastewater treatment plants, stream crossings, and the completion of construction at some sites, an increase in water management and reinstatement field observations and non-conformances occurred in the third quarter.

During the first and second quarters, field observation performance highlighted a need to focus on (in order of priority): waste, erosion control, and spill prevention and response. In the third quarter, the priorities changed to spill prevention and response, erosion and sediment control, and then waste management.

The 20 positive field observations demonstrated continuous improvement in the areas of spill prevention, erosion control, waste management, and dust suppression.

9.0 POLLUTION PREVENTION AND ABATEMENT

A focus on spill prevention and response and on finding better ways of managing waste, hazardous materials and emissions is helping the Project protect the Papua New Guinean environment.

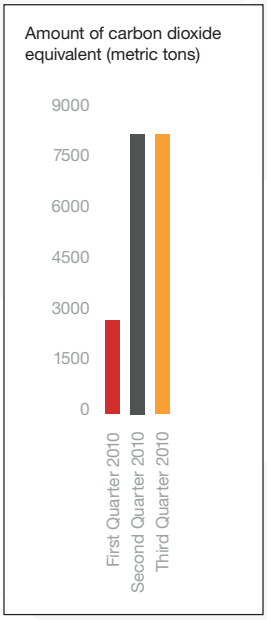
9.1 Air Emissions

The main emission sources from Upstream Infrastructure activities during this quarter were emissions from camp waste incinerators, exhaust emissions from stationary and mobile plant, and dust from worksites and roads. Methods implemented to reduce air emissions from incinerators were highlighted in the PNG LNG Quarterly Environmental and Social Report – Second Quarter 2010.

The management of exhaust has been met through the implementation of a scheduled plant maintenance regime.

Greenhouse gas emissions were documented for this quarter, with diesel being the only fuel recorded. The Project's diesel use was 3,117 kiloliters (823,424 gallons (U.S.)) (the first quarter was 1,040 kiloliters [274,739 gallons (U.S.)], the second quarter 3,124 kiloliters [825,273 gallons (U.S.)]), which gives a greenhouse gas emissions value of 8,261 metric tons (9,106 short tons (U.S.)) of carbon dioxide-equivalent emitted when calculated using the Australian Government Department of Climate Change, National Greenhouse Accounts Factors, June, 2009.

Figure 9.1 – Greenhouse gas emissions per quarter



9.2 Noise and Vibration

The Noise and Vibration Management Plan aims to reduce, to an acceptable level, noise and vibration impacts from Project activities to local residents and specific fauna habitat including bats.

During this quarter, pre-construction surveys were completed for the sites presented in *Section 2.8 Pre-Construction Surveys*. At relevant sites, comprehensive bat surveys were undertaken to determine the presence of large bat colonies that would be disturbed by construction activities. On the Mubi to Kantobo Road section and in the Hides quarries, the habitat suggests there is potential for large colonies in the area, although bats were not present at the time. Worksite boundaries in these areas were relocated because of the presence of bat caves. In the case of the Mubi to Kantobo Road, a road re-alignment was developed to route around a cave. One Hides quarry site was relocated to another limestone pinnacle, north of the initial site, to avoid close proximity to a bat cave.

Noise and vibration monitoring was performed at the following sites during this quarter:

- Oyarip Camp (Mendi).
- Juni (Hides Area).
- Wellpad A (Hides).
- Kobalu.
- Ridge Drilling Camp (Hides 3).
- Angore Drilling Camp (Angore).
- Komo Main Camp (Komo).

No community complaints regarding noise or vibration have been received via the Project Community Grievance Procedure.

The LNG plant site will begin noise monitoring during the fourth quarter 2010.

9.3 Waste Management

A Project-wide Waste Management Review began during this quarter to:

- Examine the Project's aims, philosophy and commitments for waste management.
- Review current and planned waste management practices for all contractors.
- Overlay all contractor schedules, and examine key waste management milestones.
- Understand lessons learned from the Project, and other similar projects.

Anticipated outcomes from the Waste Management Review include a summary Waste Management Schedule spanning all Project activities to identify key waste generation and management milestones/activities and key challenges.

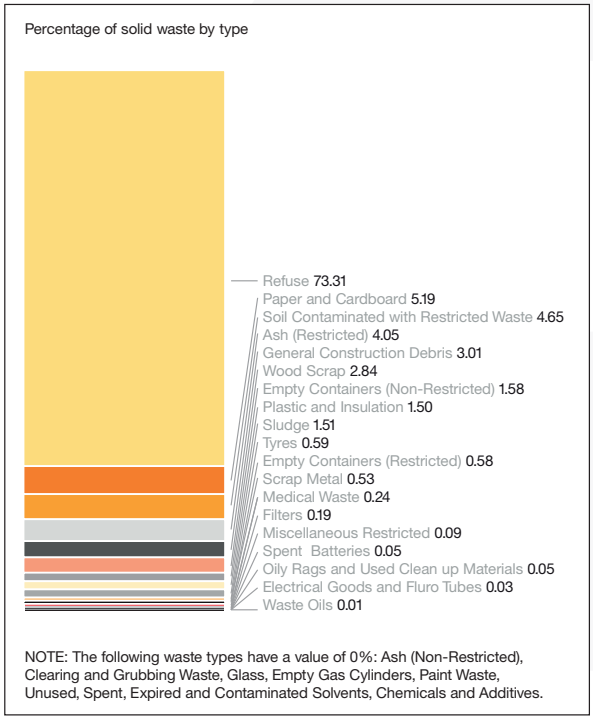
Site-based waste management practices continue to develop and mature. During this quarter, an incinerator was installed at Kobalu Camp. At the end of the quarter, the operators were receiving ongoing training in waste segregation, non-combustibles management and ash management. This quarter, all ash from the upstream infrastructure works and Project camps was stored pending completion of the Hides Waste Management Facility.

Construction of an interim waste storage area was also completed at the LNG plant site. Agreements with other contractors to utilize these waste management facilities were being established during the quarter.

Solid waste by type for those contractors operating on the ground is illustrated in Figure 9.2.

Predominant waste materials generated in the third quarter were general construction debris, paper and cardboard, plastics and insulation, scrap metal and wood.

Figure 9.2 – Solid waste (metric tons) by type[6]



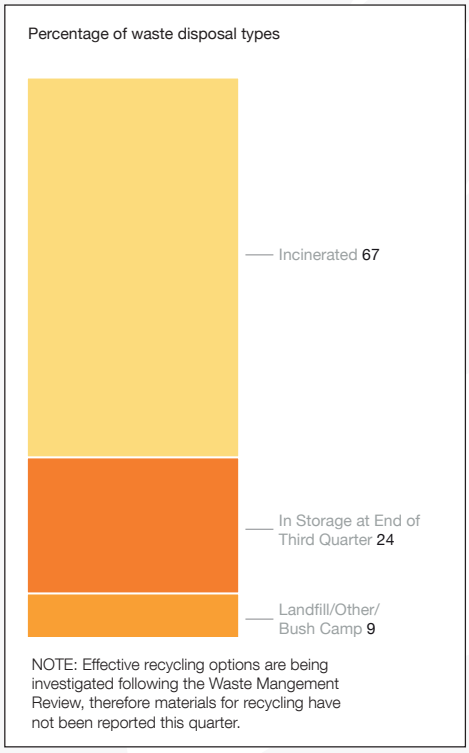
Lubricating oil waste from the operation and maintenance of earth moving equipment accounts for the largest volume of restricted waste generated. Given that recycling opportunities in Papua New Guinea are relatively limited, the Project has identified a Papua New Guinean provider that can reuse oil waste, which helps recycle oil while supporting the provider's export pipeline.

Plate 9.1 a-c – Examples of current on-site waste segregation

6 This is the third quarter of waste data collection and some parameters were not measured as waste management plans evolved and were tailored to the worksites. Wastewater and sludge has not been included this quarter, as systems are still being developed to consistently capture volumes across all sites.

Disposal methods for solid wastes during this quarter are illustrated in Figure 9.3.

Figure 9.3 – Waste (cubic meters) by disposal method



The design of the Hides Waste Management Facility continued with regular reviews to ensure all expected waste (including drilling waste) was sufficiently considered.

There were five wastewater treatment plants operational at camps during this quarter – Oiyarip, IDT10, Wellpad A, Gobe and Komo. Since the previous quarter, the floatel at Kopi was demobilized from the Project and the wastewater treatment plant on the floatel was decommissioned and used to replace the plant at IDT10 Camp (see *Section 8.4 Incidents, Non-Conformances and Corrective Action*). Wastewater treatment plants were established at Gobe and Kobalu camps (initial testing of these facilities had not occurred by the end of this quarter as these camps were not occupied).

Water sampling upstream and downstream of wastewater discharges, to assess compliance with parameters in the Papua New Guinean *Environment (Water Quality Criteria) Regulation 2002* and the Project Environment Permit, have been undertaken intermittently. Steps are being taken to improve the consistency, frequency and quality of water monitoring across sites.

9.4 Hazardous Materials

The Hazardous Materials Management Plan aims to avoid the use of hazardous chemicals and materials subject to international bans or phase-outs, and to prevent uncontrolled release of hazardous materials during transportation, handling, storage or use. A list of banned chemicals and substances has been communicated to all contractor procurement teams who then ensure these chemicals are not included in purchases.

9.5 Spill Prevention and Response

Plate 9.2 – Spill response training by the Upstream Infrastructure contractor

Work hours have doubled since the second quarter, with an increase in equipment mobilized to worksites at the end of September. This increase in activity resulted in 99 hydrocarbon or chemical spills during the quarter and an average spill size of 6 liters. The spill rate (spills per 200,000 work hours) also increased with new EPC contractors coming on-line. The Project is proactively conducting a continual cycle of spill prevention training to capture new workers.

For the year-to-date, 133 or approximately 75 percent of spills were less than 5 liters. This is a positive indicator that the Project is taking action to record the underlying cause of each spill, no matter how minor, to prevent a larger spill from occurring.

Incident recording has highlighted key causal factors where intervention can be undertaken in areas such as: fuel handling, storage, transport procedures and training. Over the fourth quarter 2010, these areas will be highlighted in Project training and procedures.

During this quarter Oiyarip Camp recorded a number of positive field observations due to the camp managers installing bunds, concrete hard stand areas and oily water separators. This Camp is being used as a model for other camps to bring them to a similar standard.

Additional third quarter activities included a spill prevention and response drill at Kopi Shore Base.

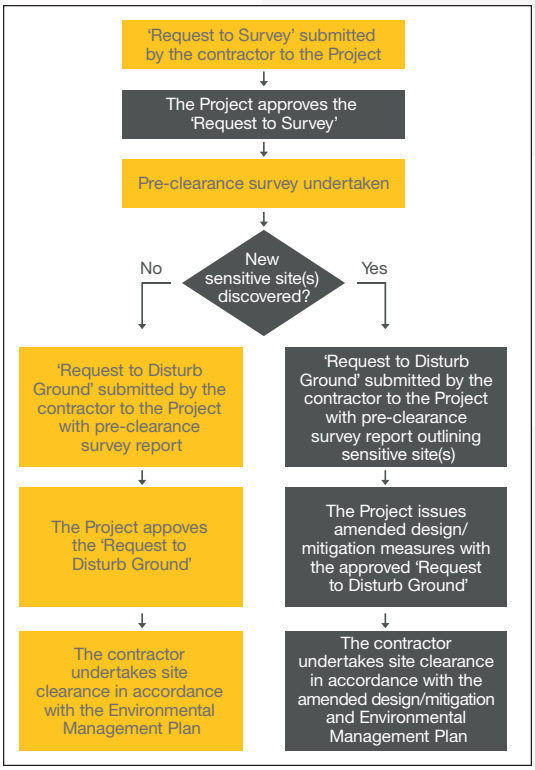
10.0 BIODIVERSITY

In recognition of the important biodiversity in the Project area, and Papua New Guinea as a whole, the Project is taking a number of steps to protect these resources.

10.1 Ecological Management

The Project continued to implement pre-construction surveys to identify ecological sensitivities and define management measures, the status of which are outlined in *Section 2.8 Pre-Construction Surveys*. Some features of interest were noted and mitigation measures implemented. For example, the pre-construction survey for the Mubi to Kantobo Road section identified evidence of the Lowland Tree Kangaroo *Dendrolagus spadix*, a species protected under the Papua New Guinean *Fauna (Protection and Control) Act 1966* and listed by the International Union for Nature Conservation as of Least Concern. Another identified species was the Long Beaked Echidna *Zaglossus bartoni*, a species listed by the International Union for Nature Conservation as Critically Endangered. A management procedure was implemented to minimize the risk of direct impacts from vegetation clearance on these two species. Neither of these species were encountered during a site walk-over, which was undertaken prior to work commencing.

Figure 10.1 – Project/contractor clearance approval process – Komo Airfield



Contractors can undertake further site and time-specific pre-clearance surveys to determine additional environmental (and also cultural heritage) constraints on sites. For example, 48 pre-clearance surveys were undertaken in the Komo Airfield area in the third quarter. A map-based clearance grid has been established for the site, which enables survey, environment and construction personnel to effectively survey the site, mitigate environmental impacts and monitor construction progress. The Project/contractor clearance approval process, as shown in Figure 10.1, is followed prior to commencing ground disturbance. No new sensitivities have been identified through this process.

Plate 10.1 – Tree Kangaroo

Plate 10.2 – Long Beaked Echidna

During this quarter, a photo point assessment was made of the mangroves at the LNG plant site as part of the pre-construction surveys at the site. Some are shown in Plate 10.3.

Plate 10.3 a–b – Examples of the mangrove photo point assessment

10.2 Quarantine Management

The Quarantine Management Program was finalized during this quarter and added as an appendix to the ESMP. The Quarantine Management Program aims to ensure full compliance with Papua New Guinean Laws and Regulations related to quarantine and, where appropriate, utilizes Australian practices to prevent the importation and spread of any pest, plant pathogen or disease via Project personnel or cargo. The Quarantine Management Program also aims to facilitate expedient quarantine clearance of Project freight imported into Papua New Guinea and implement effective control measures for the export of any Project freight.

Implementation of the Quarantine Management Program during this quarter included the provision of freight movement forecasts to key regulators to help them anticipate resource requirements. To date, this has resulted with an additional 35 officers recruited by Papua New Guinea's National Agriculture Quarantine and Inspection Authority. Contractors have also encouraged officials to witness Port of Origin load-outs of large and potentially higher risk consignments. During these Port of Origin visits, products and packing material were inspected for cleanliness and contamination, reducing the level of in-country inspections required and providing a higher level of protection for Papua New Guinea's environment.

The Project has confirmed that all international passengers arriving via Jackson International Airport in Port Moresby are subject to National Agriculture Quarantine and Inspection Authority risk profiling, including physical inspections and baggage X-rays, as required. Work is underway to seek an alternative fumigation agent to methyl bromide, in line with the requirements of the Montreal Protocol.

10.3 Weed, Plant Pathogen and Pest Management

Verification inspections and weed surveys undertaken during this quarter are covered in *Section 2.8 Pre-Construction Surveys* and *Section 8.0 Conformance*.

Mitigation measures included spraying at four sites to eliminate weeds. There were no observations of newly established weeds or a spread of weeds at any of the active worksites.

During this quarter, a strategy was developed for managing weeds along the Mubi to Kantobo Road section in the upstream area. This section of road is very important in the context of weed management as many of the priority weed species that occur south of this road are not present to the north. A documented weeds strategy was required from the construction contractor prior to starting works from the south of the road. A clean/dirty line will be established at the point where the priority weeds stop on the Kantobo side and a vehicle wash will be installed. All heavy equipment will be fully washed down prior to starting works beyond this line. Light equipment will also be washed prior to crossing this line before the road is established. After washing, vehicles will be issued with a washdown certificate for which regular checks will be made to ensure full implementation of the certificate system.

At other identified weed management sites, 35 vehicle/equipment weed and seed inspection certificates were completed during this quarter. A washdown station is under construction at the Komo Airfield construction laydown area.

Pre-construction surveys identified priority weed species at a number of sites, and recommended mitigation measures included spraying at four sites to eliminate them. No newly established or spreading weeds have since been observed at any of the active worksites.

Observations on tree health were made in the *Nothofagus* forest to control the spread of fungus-induced dieback. There were no observations of new dieback areas at worksites.

During this quarter, the Project commissioned surveys to evaluate the presence of dieback symptoms resulting from *Phytophthora* species infection in the upstream Project area. Dieback caused from infection by *Phytophthora* species can result in severe tree defoliation and ultimately tree death. Water is the primary vector for the spread of this fungus.

There were two components to the survey campaign, an aerial survey and a ground survey. There were 73 locations exhibiting dieback symptoms identified. Mitigation measures will be implemented at all areas that are suspected to be suffering from pathogen induced dieback for the entire upstream Project area, including road and bridge upgrades to minimize the risk of dieback infected material being transported into non-dieback areas. These measures will also contribute to minimizing potential impacts on sites that will be restored for natural regeneration post-construction.

As part of the Project's commitments, detailed Dieback Infection Management Guidelines have been developed.

Sandalwood trees at the LNG plant site

The first annual survey was undertaken to locate specimens of the threatened sandalwood tree *Santalum macgregorii* at the LNG plant site. Sandalwood is a parasitic or semi-parasitic species found in open savanna vegetation and in savanna gully forest. As with all other sources of sandalwood, this species is over-farmed for its scented wood, which is used for incense, perfume, essential oil and carving. In Papua New Guinea, the farming began at the turn of the last century and few mature trees or virgin stands remain. This species has not been seen in the Port Moresby area since the 1970's and was thought to be locally extinct, especially in light of the population pressures present throughout the district. One mature and one young specimen were identified outside the perimeter fence of the LNG plant site. To protect the species, extra precautions were put in place including the isolation of potential fire sources since evidence of previous fires was visible.

Plate 10.4 – Silver-Leaf Desmodium

Plate 10.5 – Elephant Grass

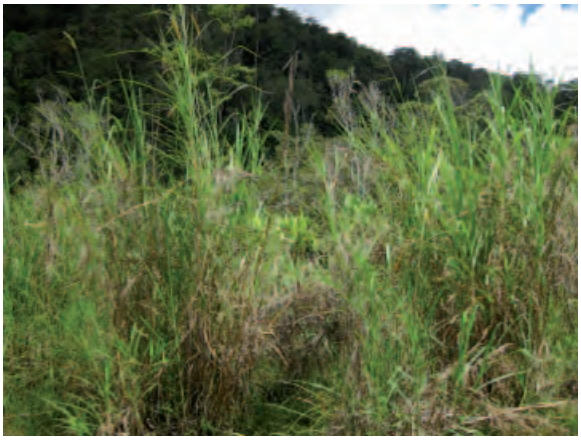


Plate 10.6 – Plumed Cockscomb

Plate 10.7 – Stinking Passion Flower

10.4 Induced Access

The Project has an Induced Access Management Plan, the objectives of which are to control access to new Project roads and reduce the occurrence of potentially damaging non-Project activities.

Upgrades of a 7 kilometer (4.3 mile) existing road, and the extension for a further 3 kilometers (2 miles) occurred during the quarter between the Kopi Shore Base and the Kopi Scraper Station. The existing road was installed initially for logging activities and, while it is not classified as a public road, it is used by public traffic. Traffic controls and signage are used on this road during construction activities and fences have been established around all worksites. Non-Project personnel are excluded from the worksites. There are no induced access concerns for the additional 3 kilometers (2 miles) of road due to the existing road and the other locally accessible logging roads in the Kopi area.

10.5 Reinstatement

The objectives of the Reinstatement Management Plan are to:

1. Establish stable landform conditions in areas disturbed as a result of construction activities.
2. Create ground conditions conducive to natural plant regeneration.

This was the first quarter in which construction works required reinstatement, with construction completed at the ME-16 Bridge site on the Northern Logistics Route. The Project is working with the contractor to investigate methods for reinstating the site, including a review of topsoil sources.

10.6 Biodiversity Strategy

As discussed in previous Environmental and Social Quarterly Reports, the preparation of a Project Biodiversity Strategy is underway. During this quarter, the Biodiversity Strategy was in the final stages of review and approval. Once finalized, consultation will commence with stakeholders such as Government, non-government organizations, industry and communities.

11.0 RESOURCE MANAGEMENT

The Project manages renewable natural resources, such as water, timber and soils, to take account of ongoing social, economic and cultural needs.

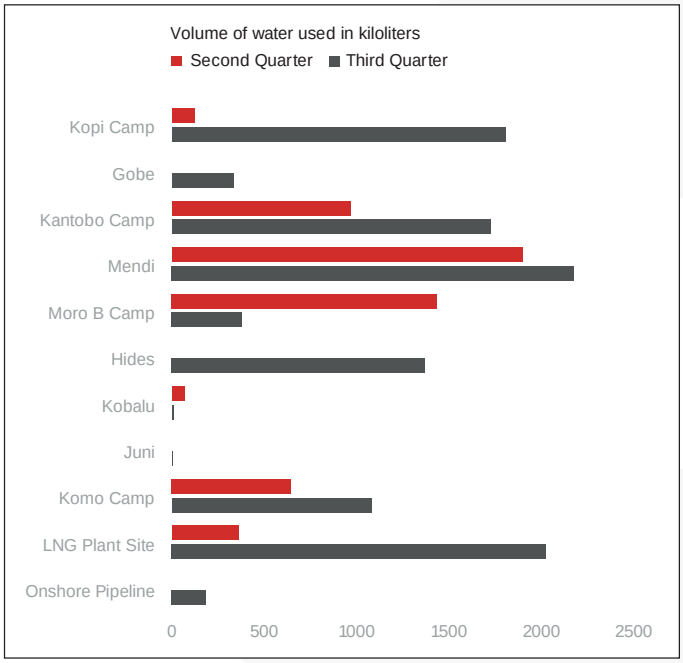
11.1 Water Management

11.1.1 Usage

The Project continues to meet its Environment Permit (water extraction) conditions through ongoing monitoring of water taken from watercourses or groundwater for Project use. Freshwater usage includes procured raw or drinking water as well as water taken from surface or ground sources.

In accordance with the Project's Water Management Plan, risk assessments are undertaken prior to the extraction and discharge of water to evaluate potential impacts to ecology and downstream users. This assessment requires the determination of indicative surface water flow, downstream use and ecological sensitivity. Should the assessment determine that the extraction would impact significantly on flow, or may otherwise have a negative effect on downstream users, an alternative source is used.

Figure 11.1 – Water usage in the second and third quarters 2010



During this quarter, water was extracted from eight surface water locations. Water extraction environmental and social assessments had previously been completed for all of these extraction sites.

Water extraction volumes are within the annual limits set by the Environment Permit for the Project, given that water draw and camp population predictions are expected to be well within required limits for the year.

During this quarter, water use for the Project amounted to 11,097 kiloliters (2,931,517 gallons (U.S.)). This compares with 5,500 kiloliters (1,452,946 gallons (U.S.)) for the second quarter, again reflecting the increase in construction activity. The volume of water use by location is shown in Figure 11.1.

The following notes apply to the third quarter figures:

- Gobe is now included, as water draw commenced this quarter.
- In the second quarter, the combined sites of Oiyarip Camp and Northern Logistics Route bridges, ME-15 and ME-16, were reported as the Northern Logistics Route. In the third quarter the draw was only from Mendi (Oiyarip Camp).
- During the third quarter some contractors lived in third party accommodation.
- For Kopi Camp, water draw does not include water drawn from the floatel, which was decommissioned during the quarter. Onshore pipeline water usage includes activities at the Kopi laydown and Kopi Scraper Station Pioneer Camp.
- Kobalu does not have any full-time accommodated staff because construction is ongoing, hence the low water draw figures.
- Water at the LNG plant site was used for dust suppression and compaction works during construction of the LNG plant site Bypass Road and the Papa Lae Lae and Napa Napa roads. Water for dust suppression was obtained from a standing water pond adjacent to the bypass route. An assessment was conducted in the previous quarter to determine that water extraction from the standing pond had no impact.
- Komo water usage was for camp water supply.

New drinking water supply wells were drilled at the Juni Construction Training Facility and Wellpad A. The well at Wellpad A became operational during the quarter, while the Juni Construction Training Facility well is awaiting connection to supply pipelines.

11.1.2 Quality

Wastewater discharge is addressed in *Section 9.3 Waste Management.*

The purpose of Project water quality sampling is to establish a pre-construction baseline against which future sampling is to be established. Wet season sampling had previously been undertaken in October, 2009. Dry season monitoring for water quality and biological sampling was undertaken in June, 2010 at locations on Tugubi Creek, Kaimari Creek, Mandali River and Aiur River.

The second Project monitoring event took place between June and July, 2010. This involved invertebrate sampling (biological sampling) at selected sites along the pipeline route and water quality sampling at all sites.

Plate 11.1 – Wastewater treatment plant at Moro B Camp

11.2 Raw Materials

No new quarries were established during this quarter. Most material was sourced from existing third party (operating or previously abandoned) quarries. In accordance with the Raw Materials Management Plan, existing quarries will continue to be utilized in preference to new quarries. There are some exceptions with pre-existing, owned and operated Lanco quarries. For example, a Project contractor supported a Lanco to develop a quarry near Nogoli (referred to as QA-2 or Tameya Quarry) in a manner that was safe and had considered environmental and social impacts.

During this quarter, environmental assessment survey reports were completed for two quarries north of the HGCP site. The reports were approved by the DEC. The quarries will be used upon completion of the HGCP to Hides Quarry Access Road, which is under construction. Thirteen quarries were in use during the quarter, as outlined in Table 11.1.

Up to the end of the third quarter, it was necessary to purchase only small volumes of timber, principally for walkways in camps and typically about 5 cubic meters (6.5 cubic yards) per campsite. This timber was sourced from Lanco operated suppliers.

Onshore pipeline works have only used timber cleared from the construction footprint. During the quarter, the contractor was working with Papua New Guinean groups to establish sawmills nearby for tree felling activities to allow the timber to be milled and made into structures for use during pipeline construction.

As reported in the second quarter 2010, a large timber volume of 2,552 cubic meters (3,338 cubic yards) was sourced from trees felled as part of the site clearance for the Komo Airfield. This timber was required for the installation of the boundary fence, which was completed early in this quarter.

On the Northern Logistics Route, excess spoil has been generated as part of bridge and road works. This spoil was spread at sites that were assessed for environmental and social impacts. As a minimum, sites need to be on pre-disturbed land, an agreement has to be in place with the landowner who wants to develop the site (usually to establish a house or business), and key environmental aspects such as weeds, cultural heritage, erosion and ecology must be considered.

Table 11.1 – Quarries in use and extracted volumes

Area/Quarry Name	Volume Extracted (m^3)
Mendi	
MM-09	0
MM-10	22,100
Pipita	3,900
Tilum	600
PO-04	120
PO-08	355
PO-10	751
Hides	
Quarry 1 (QA-1)	16,177
Quarry 2 (QA-2)	17,398
Kobalu	
Samo Quarry	19,000
Southern Logistics Route	
Pinnacle 17	60,580
Mubi River Quarry	49,350
Kikori River South (Quarry 33)	49,112
Gobe 7000	3,836
Gobe 2000	56

11.3 Erosion and Sediment Control

As described in the Project's PNG LNG Quarterly Environmental and Social Report – Second Quarter 2010, erosion and sedimentation control measures were implemented along the Gobe to Mubi River Road. During this quarter, a full-time dedicated team was appointed to monitor and repair erosion and sedimentation control measures along this road.

The LNG plant site was developing topsoil preservation requirements for near- and long-term reinstatement for the HGCP. The requirements will be finalized during the fourth quarter 2010.

During this quarter the onshore pipeline tree felling activities began, with a focus on keeping the majority of soil intact. For example, all root systems and stumps are left intact until the clearing and grading crew initiate activities. No major streams or rivers were present in areas where tree felling took place. No erosion or sediment control incidents were recorded during this quarter.

At Komo Airfield, verification inspections were undertaken each month and after significant storm events. Inspections included, but were not limited to, landform stability inspections, sediment control structures and stockpile inspections and control measures implemented to manage failing sediment control structures and stockpiles.

Plate 11.2 a-b – Examples of a sediment fence

12.0 CULTURAL HERITAGE

The Cultural Heritage Management Plan, overseen by the Project's archaeologist, includes salvage programs for managing known sites of archaeological significance, supervision during pre-construction surveys and procedures for managing 'chance finds' during Project work.

12.1 Salvage Programs

During this quarter, the Project received notice from the Director of the Papua New Guinea National Museum and Art Gallery that its obligations under the Permit for Salvage Archaeology for the Upstream Scope of the PNG LNG Project were deemed complete. This approval follows the conduct of significant Project cultural heritage survey and salvage efforts across the Hides portion of the Project area. The Hides portion includes the HGCP site, HGCP to Hides Quarry Road and associated spoil site, as well as the Hides quarries (Hides Quarry 1 and Hides Quarry 3). Cumulatively the survey work is collating information on over 1,700 heritage sites and contributing substantially to the knowledge base for this area of the Southern Highlands. In collaboration with the Papua New Guinea National Museum and Art Gallery, results of this work will be reported and disseminated to the local community.

As a result of the Papua New Guinea National Museum and Art Gallery approval, construction can commence in the Highlands region of the upstream Project area with the adoption of the Cultural Heritage Management Plan Chance Finds Protocol.

Archaeologists mapping remains of three Balamanda (men's houses) and one "safe house". These sites were the accommodation and command center for a fighting camp that had housed more than 100 warriors during a period of inter-clan fighting in the early 1960's.

12.2 LNG Plant Site Archaeological Verification

In August, an archaeological site verification study was conducted at the LNG plant site to locate sites added to the Papua New Guinea National Museum and Art Gallery National Site Register by the University of Papua New Guinea in 1978. The aim of the field investigation was to determine if there was any duplication between the sites on the National Site Register and sites identified during Project investigations. The field investigation determined that two out of five of the sites identified during Project studies were not on the National Site Register. The two new sites contained shell fragments and chert flakes.

12.3 Pre-Construction Surveys

Pre-construction cultural heritage surveys are conducted to ensure that each worksite is characterized and appropriate site-specific mitigation and management measures are identified to protect Papua New Guinea's cultural heritage. Such measures need to be endorsed by the DEC before construction starts. During this quarter, pre-construction surveys that incorporated a cultural heritage component were completed at a range of sites including the Northern and Southern Logistics Routes, HGCP and the HGCP to Hides Quarry Road spoil site (see *Section 2.8 Pre-Construction Surveys*). Examples of findings from these surveys are included in Table 12.1.

Mitigation measures required to address the site-specific sensitivities were in line with those included in the Cultural Heritage Management Plan and the Environmental Management Plan, and no additional mitigation actions were required.

Table 12.1 – Overview of pre-construction survey cultural heritage findings

Survey Area	Sensitivities
Southern Logistics Route	
Kantobo to Mubi Road 0–3 kilometers (0–2 miles)	• 2 oral tradition cultural heritage sites located within or bordered with worksite area. • 7 oral tradition traditional cultural heritage sites located outside the worksite area.
Kantobo to Mubi Road 3–8 kilometers (2–5 miles)	• 15 oral tradition cultural heritage sites within the worksite boundary. • 5 oral tradition cultural heritages sites within the survey area.
Kantobo to Mubi Road 8–11 kilometers (5–7 miles)	• 9 oral tradition cultural heritage sites located within or bordered with the worksite area. • 6 oral tradition cultural heritage sites located within the survey area.
Hides	
HGCP to Hides Quarry Road	• 16 oral tradition cultural heritage sites identified within the worksite. • 8 burial sites. • 10 oral tradition sites identified within the worksite.

12.4 Incidents of Disturbance to Known Cultural Heritage Sites

There have been no incidents of disturbance of known cultural heritage sites during this quarter or on the Project-to-date. Also, there were no near miss incidents recorded.

A detailed Cultural Heritage Training Package has been delivered to construction supervisors and machinery operators at some worksites. This Package explains the importance of cultural heritage in Papua New Guinea, outlines the Project's approach to cultural heritage management, provides examples of archaeological artifacts that may be encountered in the Project area and describes what to do in the event of a chance find during construction works. One objective of these training sessions is to minimize the incidence of disturbance to cultural heritage sites, both known and unknown.

12.5 Chance Finds

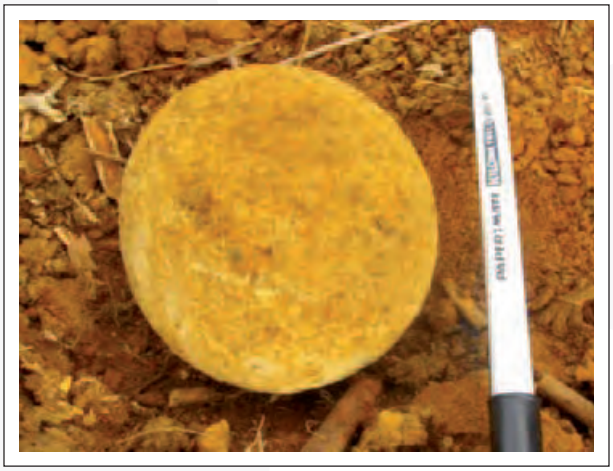
During this quarter there were 27 chance finds across the Project area; 16 at the HGCP site and 11 at the Komo Airfield. Listed in Table 12.2 are 20 of the chance find artifacts. The remaining seven finds were of limited or unsubstantial artifacts. The artifacts were collected and construction work continued. All artifacts will be registered and handed to the Papua New Guinea National Museum and Art Gallery.

Table 12.2 – Cultural heritage chance finds during this quarter

Location of Find	Type of Find
HGCP Upstream Infrastructure Camp Site	Ritual stone artifact.
HGCP Industrial Park (Cluster 3)	Shell.
	Mortar.
HGCP Hides Gas Production Facilities and Hides Wellpads Camp	Ritual stone.
	Tang blade implement (part of the blade of a tool, in this case a stone tool, which extends into the grip).
HGCP Spoil Dump Area	Ritual stone axe.
	Ritual stone.
	Chert/flake.
	Tang blade implement.
	Ritual stone.
HGCP to Quarry Access Road	Ritual stone.
	Sacrificial ritual stone.
	Ritual stones.
	Tang blade implement.
	Stone axe.
	Sacrificial ritual stone.
Komo Airfield	Waisted blades (2).
	Weathered axe ('adze').
	Sacred stone.

Plate 12.1 a-b – Examples of tang bladed implements from the HGCP

Plate 12.2 – The weathered Liru-Kui (sacred spirit stone) unearthed at Komo Airfield



An example of one of the chance finds salvaged and catalogued was a weathered sacred spirit stone ('Liru-Kui') discovered at the Komo Airfield in July. Such stones are commonly found in the Highlands region of Papua New Guinea including the Huli territory, sections of the Western Highlands and Enga provinces and Ialibu and Pangia districts in the Southern Highlands province. It is believed that a person can own the stone but not the spirit. The invisible spirit is attracted to, and built into, the spherical stone and is fed and looked after and used through the visible entity (the stone). On occasions where the spirit is not fed properly, it affects the custodian by bringing sickness and death to their family members or poor crop yields in their gardens. It is also believed to sometimes coerce the winds to demolish houses and trees. When the spirit attached to the stone is appeased and looked after to its expectations, it endows the custodian with good health to family members, increases livestock performance and, most importantly, kills enemies. Extra precautions were taken in handling the stone and it will be given to the Papua New Guinea National Museum and Art Gallery.

In the PNG LNG Quarterly Environmental and Social Report – Second Quarter 2010, a chance find located at Juni was identified as 'a devil stone'. Subsequent advice has confirmed that it is a 'Ni Tangi' or 'Hat of the Sun'. Ni (the sun) is the major spirit ancestor of Huli, and this stone, along with others, were kept at ritual sites called 'Liruanda'. The generic and preferred term for such stones is 'Dama' (spirit) stones.

13.0 STAKEHOLDER ENGAGEMENT

A comprehensive understanding of stakeholder issues and interests will allow the Project to identify and implement stakeholder engagement activities that are best suited to achieving the Project's objectives and specific stakeholder needs. The Project's approach is based on proactively communicating about proposed and current Project activities, addressing stakeholder concerns and seeking opportunities for shared outcomes.

13.1 Government

The Project Management Team meets regularly with key Government Ministers to keep them apprised of the Project's status. In August, the Project was invited to provide an update to the Papua New Guinean Cabinet's Ministerial Committee on the Economic Sector. It is expected that these reviews will be conducted several times each year.

The Project Government Interface team regularly engages with a number of key Papua New Guinean Government agencies, including those with a coordination role. The relationships established with these agencies assists with improving Government processes, and identifying and implementing solutions to potential problems that may affect the Project's schedule.

These meetings are supplemented by the following focus areas identified by the Project's Government Interface team.

13.1.1 People Processes

The Project continues to work with the Papua New Guinean Government to ensure agencies such as the Department of Labour and Industrial Relations and Immigration and Citizenship Service (part of the Department of Foreign Affairs) have the processes and resources to manage the large number of people required for successful Project completion.

Bi-monthly meetings are held with key Government agencies and contractors to manage the effective and efficient mobilization of Project labor into Papua New Guinea.

During this quarter, the Government made several procedural changes to enable the Project to more readily mobilize labor requirements and meet schedule commitments. One of the Government's major initiatives was the Hub Processing concept. Hub Processing enables Papua New Guinean consulates to accept bulk packages of Work Residential Employment visa applications from offshore locations such as Manila, Kuala Lumpur, Beijing and Brisbane. This will allow visa applicants to either have visas affixed to their passport in the Hub country, or if not residing in one of the Hub countries, they will be allowed to travel under an Authority to Travel document and have the visa affixed to their passport once they arrive in Papua New Guinea.

13.1.2 Materials and Tax

In addition to making many purchases locally, the Project will import substantial quantities of materials required to construct the LNG plant, pipelines and other facilities. The Project is working with key Government agencies, including the Papua New Guinea Customs Service and National Agriculture Quarantine and Inspection Authority, as well as some private sector operators, to implement procedures that meet the Government's requirements and actively facilitate the movement of materials.

The contractual structure is complex, raising several challenges relating to the application of duties and taxes. The Government Interface team remains in active discussions with the Government about the process for implementing the duty and tax concessions granted in the Gas Agreement and timely goods and services tax rebates.

13.1.3 Infrastructure and Government Support

Successful construction activities rely on mobilizing materials and equipment into the areas where they are required. The Project is working with Government agencies such as the Department of Lands and Physical Planning, and the Department of Works to scope and facilitate the logistics required to achieve this.

Successful engagements in the transport sector infrastructure have included the execution of Investment Agreements between the Project and Government departments (such as the Department of Works and the National Airports Corporation). This involves Project funding for short-term repairs of the Northern Logistics Route, including the refurbishment of bridges and the upgrading of Tari Airport.

The Project also began funding an engineering contractor to determine the long-term maintenance and upgrade needs of the Northern Logistics Route. The results will be reviewed with relevant Papua New Guinean Government agencies.

13.1.4 Advocacy

In July, members of the Government Interface and Public Affairs teams facilitated workshops in Goroka, along the Northern Logistics Route, with provincial administration representatives from Morobe, the Eastern Highlands, Simbu and the Western Highlands provinces. The team presented an overview of the Project's scope and status and each provincial team led a short overview discussion of their province's organization.

Led by the Socioeconomic, Land and Community Affairs team, opportunities for discussions about local business development opportunities were also provided.

A supplementary session was held at Goroka University in July to review the Project scope with staff and students.

The provincial administrators workshops are part of a series of meetings planned with the relevant administrators in areas potentially affected by the Project. The meetings provide a forum to discuss the potential impacts of the Project and address any concerns raised by the relevant administrators.

Plate 13.1 – Northern Logistics Route Provincial Administrators workshop

13.1.5 Benefits Assurance Delivery

The Government Interface team continued to work, on a weekly basis, with the Department of Petroleum and Energy and the Department of Commerce and Industry to facilitate Government processes for meeting commitments outlined in the Benefits Sharing Agreements. The first round of Business Development Grants was distributed to Lancos in September.

Plate 13.2 a–b – Meetings with the Department of Commerce and release of the Business Development Grant

The Government Interface team also sponsored a field awareness trip to Moro and Hides for three members of the Department of Commerce Benefits Sharing Agreements Business Development Grant team and co-hosted a workshop with key Government Departments involved in establishing landowner identification and benefits distribution mechanisms. The workshop included a review of the new Incorporated Landowner Group legislation.

13.2 Communities

The Project is committed to establishing and maintaining positive community relations through effective communication and consultation. Both the Project and its contractor companies are responsible for engaging with communities.

While elements of constructive and respectful engagement are inherent in all the Social Management Plans, two key plans guide engagement with communities; the Project's framework Stakeholder Engagement Plan, and the Contractor Community Engagement Management Plan. Some of the community engagement activities during this quarter are highlighted below.

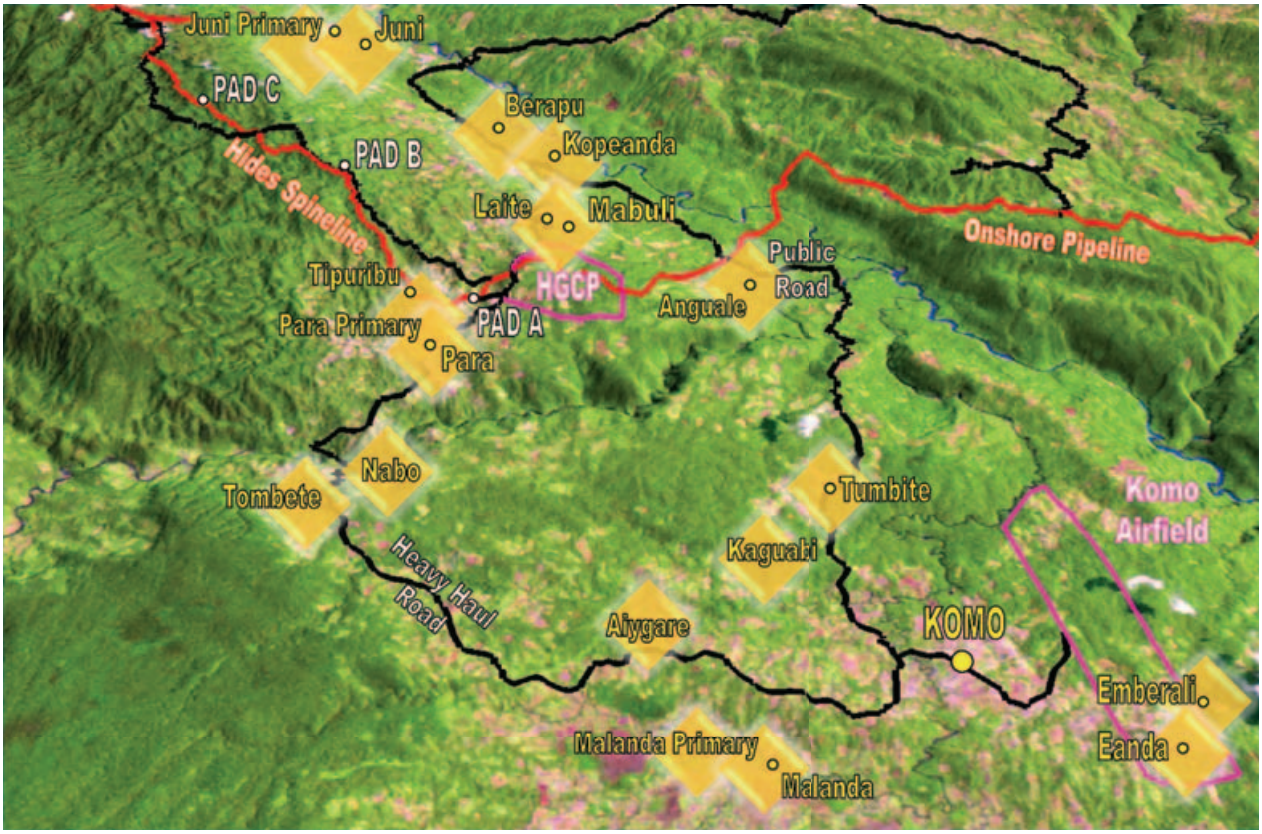
13.2.1 Engagement Activities

In the northern part of the Project area, the early works for the new Komo Airfield, Heavy Haul Road and the HGCP are underway. Five community engagements were undertaken in July, bringing the total of first-round engagements in this area to 16. A total of 2,225 people, who chose to register their attendance, participated in these engagements. Figure 13.1 indicates the locations of these meetings.

Thirteen formal community engagements were held at the four LNG plant site villages, with 1,895 people registering attendance. These consultations provided general information about the Project and detail on the construction of the LNG plant and associated road upgrades. These meetings also gave community members the opportunity to raise concerns and have their questions answered.

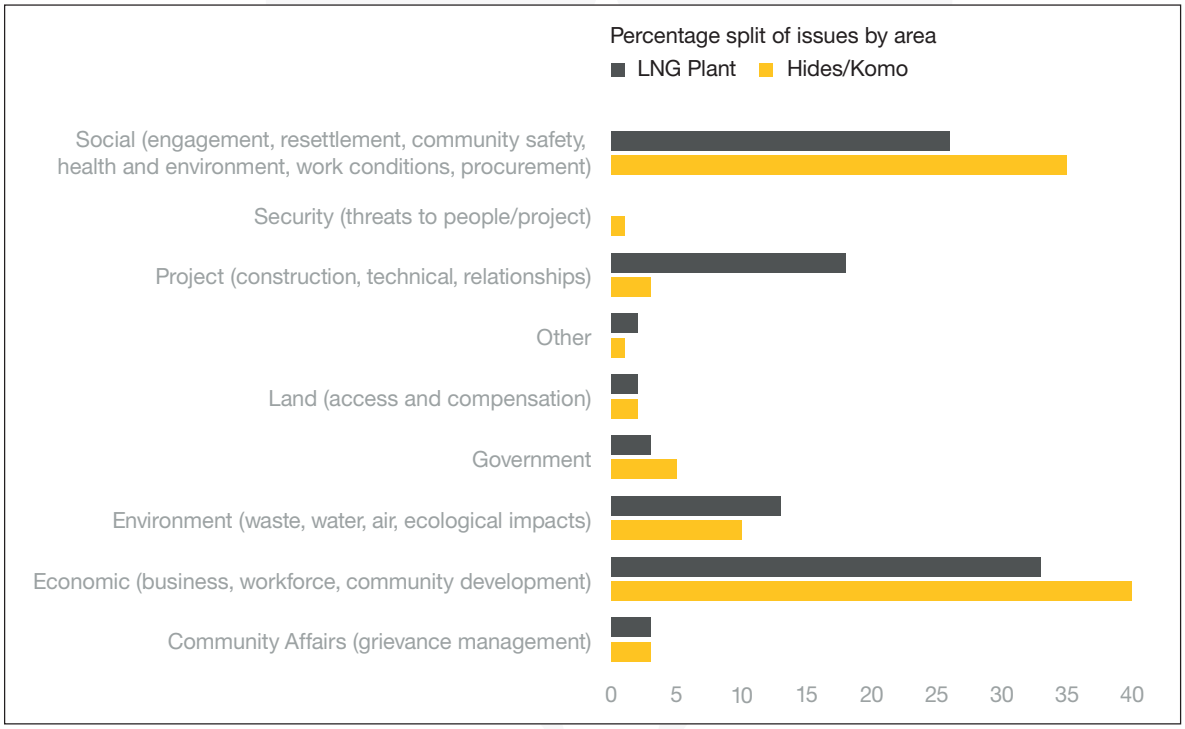
The Socioeconomic, Land and Community Affairs team has established a series of ongoing, regular meetings for dialogue with each of the four LNG plant site communities (Porebada, Papa, Boera and Lea Lea). Representatives of the LNG Plant and Marine Facilities contractor, and various Socioeconomic, Land and Community Affairs departments also attend. The meetings provide regular updates on the current LNG plant site Pioneer Camp construction work and plans for the near future. They also provide a forum for open communication with these communities.

Figure 13.1 – Locations of engagements in Hides-Komo-Heavy Haul Road area (June – July, 2010)



NOTE: An engagement process for the Hides-Komo-Heavy Haul Road area was initiated in June, 2010 and completed in July. All locations included in this campaign are displayed above.

Figure 13.2 – Comparison of total issues received by area and key issue



Tracking of engagement activities continues with data migration to the Information Management System stakeholder engagement module 85 percent complete, and training in its use advanced.

This software will allow greater efficiency with tracking and planning a range of Project/stakeholder interactions. Importantly, it will also enable greater integration between different community-oriented sections in the Project.

Meanwhile the Land and Community Affairs team continued to be the major interface between landowners, the Project, Project contractors, and Project affected communities. Core activities included:

- Establishing and maintaining a good working relationship with impacted landowner groups and their leadership.
- Negotiating In-Principle Compensation Agreements with impacted landowner groups (clan and sub-clans) and managing associated cash payments and transfers as required by Section 118 of the Oil and Gas Act 1998.
- Assisting with environmental, archaeological, cultural and technical surveys as required.
- Assessing and making payments for environmental and cultural site impacts caused during surveys or contractor operations.
- Assisting landowners to manage land ownership disputes associated with clan land demarcation through the mediation process outlined in the Land Dispute Settlement Act 1975.

Another core Land and Community Affairs activity was assisting and supporting Socioeconomic, Land and Community Affairs social programs. Significant activities included:

- Identifying issues and grievance management.
- Assisting with the management of work stoppages whether related to operational or industrial relations.
- Identifying suitable Rapid Implementation Projects to support community development activities.

The Land and Community Affairs team held approximately 700 formal and impromptu meetings with landowners, spanning all work locations.

Landowners were primarily concerned about business development and employment, which are core concerns in the early construction stage. Other meetings were related to land access and related compensation.

Traffic and Construction Safety Awareness

Hides and Komo areas: The Project's concerns about pedestrians, especially children, accustomed to walking on the road, and the great interest shown by local residents in observing construction site activities, led to the development and implementation of a Traffic and Construction Site Safety Awareness Program. This Program was rolled out during September and will continue into October, 2010. Traffic and construction safety messages are likely to become a standard part of community engagement in the area.

This Program has focused on schools (teachers and children) and churches, as well as local communities and Project drivers. Direct engagement, drama skits, and fun children's games with a safety message (teachers' resources) were all part of this Program. At the request of local teachers, signage has only been developed in English so that it may also be used as an additional tool for teaching English.

LNG plant site Bypass Road: A Driver Traffic Safety Awareness Program was conducted in August at the LNG plant site, prior to the opening of the new Bypass Road around the site. The Bypass Road replaced the existing road, which ran through the site, and ensures uninterrupted travel for people living on either side of the site.

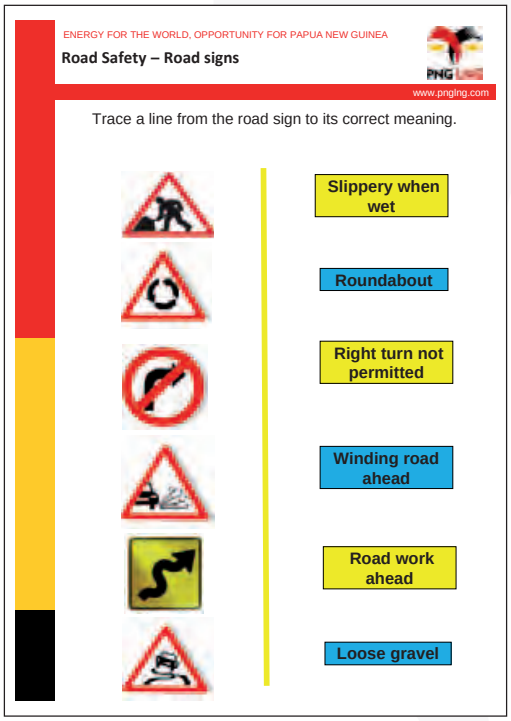
As the Bypass Road was newly tarred, and there was a risk of small stones being kicked up if drivers drove faster than the speed limit or close behind each other, this Program focused on drivers and public motor vehicle passengers. The team identified and met with various road users such as:

- Drivers/fleet managers of commercial companies (for example, delivery vans) using the road.
- Local company drivers that send vehicles to pick up and drop off staff.
- Public motor vehicles and buses, drivers at bus stops/terminals, gas stations, markets and a ferry drop-off point.
- The Project's own fleet drivers.

A flyer outlining the risks and advising of safety precautions was distributed to all those the team engaged with.

Plate 13.3 a–b – Traffic and Construction Site Safety Awareness Program presentations

Figure 13.3 a–b – Examples of some of the children's educational games with a safety message



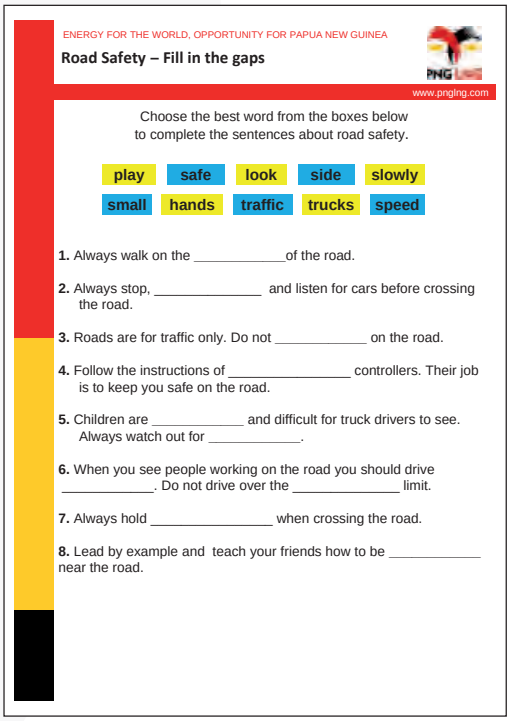


Figure 13.4 a–b – Example safety posters handed out at all community, school and church meetings as flyers

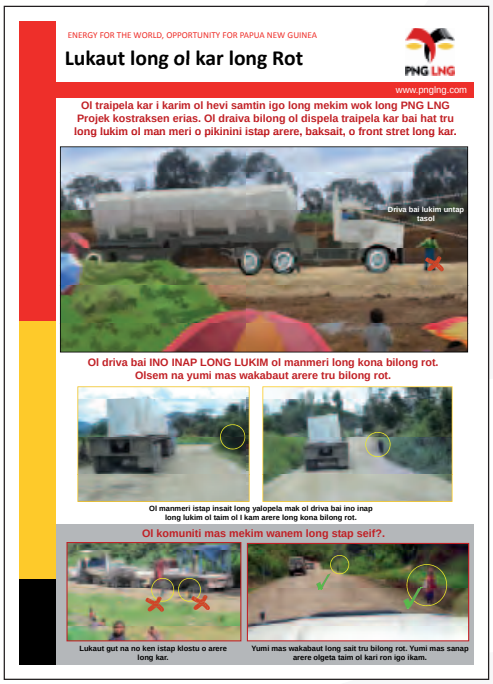


Plate 13.4 a–b – Safety posters on display in local communities

13.2.2 Media

The Project issued its second PNG LNG Quarterly Environmental and Social Report covering activity from April to July, 2010. It was published on the Project website (www.pnglng.com) as well as in hard copy for distribution to a wide network of stakeholders. Additionally, the executive summary was distributed in Tok Pisin and English through a suite of national papers including the Post Courier, The National, Wontok and Independence Magazine.

14.0 ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
CCI	Chamber of Commerce and Industry
CDSP	Community Development Support Plan
CIC	Community Investment and Contributions
DEC	Department of Environment and Conservation
EPC	Engineering, Procurement and Construction
ESMP	Environmental and Social Management Plan
HGCP	Hides Gas Conditioning Plant
HIV	Human Immunodeficiency Virus
IESC	Independent Environmental and Social Consultants
Lanco	Landowner Companies
LNG	Liquefied Natural Gas
MCCP	Malaria Chemoprophylaxis Compliance Program
MCP	Malaria Control Program
PNG	Papua New Guinea

APPENDIX 1 – PROJECT CONTRACTORS AND WORK SCOPES

Table A1.1 – Summary of contractors and work scopes

Contract	Description of Work Scope
Upstream Infrastructure Clough Curtain Brothers Joint Venture	• This is a program of infrastructure upgrades in advance of main construction activities in the Gulf Province and Southern Highlands Province. • Camps – Gobe, Oiyarip (new camps), Nogoli (existing camp extension), IDT10 (Moro Camp refurbishment). • Construction of a landfill site at Hides.
LNG Plant Early Works Curtain Brothers Papua New Guinea Limited	• A program of early works at the LNG plant site. • Upgrade of existing road from Motukea Island to LNG plant site. • New Bypass Road (re-routing of existing public road, which transects with the LNG plant site).
Telecommunications TransTel Engineering	• Installation of a telecommunications system to support construction and operations.
Offshore Pipeline Saipem	• Construction and installation of the Offshore Pipeline from Omati River landfall to LNG plant landfall site. • Pipeline tie-in at Omati River landfall and shore crossing at the LNG plant landfall site.
LNG Plant and Marine Facilities Chiyoda and JGC Corporation	• Onshore aspects including LNG trains, condensate storage tanks, LNG storage tanks, boil-off compressor, utilities, flare, waste disposal area, laydown area, permanent accommodations, construction camp, heliport and telecommunications. • Marine aspects including LNG/condensate export berths.
Hides Gas Production Facilities and Hides Wellpads CBI Clough Joint Venture	• HGCP processing facilities. • Construction camp. • Hides wellpads.
Onshore Pipelines and Infrastructure SpieCapag	• Onshore gas/condensate/mono ethylene glycol pipelines, flowlines, spinelines, above ground facilities (such as mainline valve stations, meter stations, pig launcher/receiver stations, cathodic protection equipment), power and optic telecommunications cables. • Vehicle washdown stations. • Construction camps.
Komo Airfield McConnell Dowell and Consolidated Contractor Group Offshore	• Airfield and supporting infrastructure.
Associated Gas Facility Upgrades Aker Solutions	• Upgrades and modifications to Kutubu Central Processing Facility and Gobe Production Facility including gas dehydration, metering and condensate handling.
Nabors Drilling International Limited	• Drill 12 new wells and execute two workovers.
Permanent Office and Housing Company (to be determined)	• Construction of office accommodation with housing.
Port Moresby Construction Training Facility Eos	• Construction of training premises.

APPENDIX 2 – PROJECT MONITORING

As part of the Project's commitments, monitoring is conducted during construction and Project operations by the IESC. Each consultant team conducts up to four visits per year during Project construction. The first IESC visit occurred in May, 2010, with the first report published on the Project website (www.pnglng.com) in August. The second IESC visit is scheduled for October, 2010. The first Independent Technical Consultant visit is scheduled for November, 2010.

The IESC's Environmental and Social Compliance Monitoring Report assesses the Project's conformance with the Environmental and Social Management Plan, Applicable Lender Group Environmental and Social Standards and applicable Environmental and Social Laws. The Report contains an Issues Table with categories as summarized in Table A2.1.

Table A2.1 – Summary of Environmental and Social Compliance Monitoring Report Issues Table categories

Observations	Potential non-conformance situations that could eventually become inconsistent with commitments.
Level I	Non-conformance with commitments, but not representing an immediate threat or impact to a resource or community.
Level II	Representing a situation that has not yet resulted in clearly identified damage or irreversible impact to a sensitive or important resource or community, but requires expeditious corrective action and site-specific attention to prevent such effects.
Level III	Typically including observed damage to or a reasonable expectation of impending damage or irreversible impact to an identified resource or community and/or a major breach to a commitment.

The first IESC Report represented a comprehensive and balanced assessment that acknowledged the significant efforts taken by the Project to meet commitments.

It showed no Level III non-conformances, however 11 Level II non-conformances were reported in relation to commitments against the milestone schedule, waste management and resettlement. Another eight Level I non-conformances related to resettlement and community impact, while two observations were made regarding incinerator emissions.

The Project has used these findings to identify appropriate remedial actions to address IESC concerns. Some areas already addressed include:

- **Milestone Commitments** – IESC raised a Level II non-conformance regarding documentation that was not available at the time of the audit. The Project has subsequently provided all relevant documentation.
- **Resettlement** – Non-conformances were raised regarding the timing of the submission and approval of Resettlement Action Plans, and compensation rates being used to develop relocation packages. Further discussion is to occur with the IESC on both issues.
- **Waste Management** – The IESC was concerned about the management and monitoring of waste utilizing third party facilities prior to installation and commissioning of Project-specific facilities. The Project is reviewing a near-term waste management strategy to clearly identify the use of third party facilities, the need for temporary waste accumulation areas, and any corrective actions required.
- **Grievance Management** – At the time of the IESC visit, a formal grievance management system was not fully implemented. Since then a formal system has been established.

APPENDIX 3 – DEFINITION OF VERIFICATION, MONITORING, ASSESSMENT AND AUDIT

The ESMP commits the Project to monitoring, by sampling and analysis, the management and mitigation activities for which it is responsible:

- Contractors have a field based Environmental Monitoring (Sampling and Analysis) Program.
- The Project checks and corrects any errors discovered in contractors' monitoring documentation.
- The Project undertakes environmental monitoring (sampling and analysis) at all worksites.

Contractors provide both a Construction Environmental Report and a Construction Social Report to the Project each month. These reports provide the details and results of all monitoring undertaken during the quarter.

Verification, Monitoring, Assessment and Audit

The ESMP requires verification, monitoring, assessment and audit activities as detailed in the following sections.

Verification

The Project will undertake verification of the management and mitigation activities for which it is responsible as defined in the ESMP.

In addition to checking and reviewing contractors' and subcontractors' inspection and verification documentation, the Project will undertake inspection and verification at all worksites.

Contractors and subcontractors shall implement a Field Based Inspection Program in order to verify and document the due implementation of, and in some cases the effectiveness of, mitigation measures identified in contractor and subcontractor ESMP documents.

Monitoring

The Project will monitor and manage mitigation activities for which it is responsible as defined in the ESMP.

In addition to checking and reviewing contractors' and subcontractors' monitoring documentation, the Project will conduct environmental monitoring (sampling and analysis) and social monitoring at all worksites.

Contractors and subcontractors shall implement a Field Based Environmental Monitoring (Sampling and Analysis) Program and a Social Monitoring Program in order to monitor the effectiveness of management and mitigation measures, assess impacts and demonstrate compliance with applicable legal and other requirements.

Assessment

The Project will undertake internal assessments of management and mitigation activities for which it is responsible as defined in the ESMP.

The Project will undertake periodic assessments, evaluating the implementation and effectiveness of contractors' and subcontractors' environmental and social programs. Such assessments will be undertaken in accordance with predetermined protocols agreed with the contractors.

Contractors shall undertake internal assessments in order to evaluate the implementation and effectiveness of the contractors' and subcontractors' Environmental and Social Program.

Audit

At its discretion, the Project may undertake environmental and social audits of contractors' and subcontractors' activities and worksites, including camps.

The IESC will, on behalf of the Lender Group, undertake periodic environmental and social audits of the Project's activities and worksites, including camps.

Co-venture parties may, at their discretion, undertake environmental and social audits of the Project's activities.

The DEC may, at its discretion, undertake environmental and social audits of the Project's activities.

APPENDIX 4 – DEFINITION OF NON-CONFORMANCES

The Project has assigned three levels of non-conformance and two additional field observations levels, as presented in Table A4.1.

Table A4.1 – Non-conformance levels

Level	Description	Disposition
Positive Field Observation	A positive field observation of a mitigation, commitment or situation that is properly being implemented or handled in alignment with the ESMP requirements. Potential for sharing lessons learned or environmental point of emphasis.	Positive field observations are examined regularly to determine if sharing across the Project and contractors would be beneficial.
Field Observation	A potential non-conformance situation that could eventually become inconsistent with stated ESMP requirements and where an observation, intervention, and rapid resolution is achieved and noted by the Project and/or contractor personnel. Potential for sharing lessons learned or environmental point of emphasis.	Field observations will be communicated to contractors for further action. Field observations that are not closed-out in a timely manner or repeat field observations may also generate a formal Non-Conformance Notice.
Level I	A non-conformance situation not consistent with stated ESMP requirements, but not believed to represent an immediate threat or impact to an identified important resource or community. Typically aligned with the Project's definitions for Severity Level 0 and <0 incidents.	Level I non-conformances will generate a corrective action request or a recommendation for further action. Level I non-conformances that are not closed-out in a timely manner or repeat non-conformances may also generate a formal Non-Conformance Notice. Repeated Level I non-conformance may have the disposition and tracking escalated to a Level II non-conformance level if left unresolved.
Level II	A non-conformance situation that has not yet resulted in clearly identified damage or irreversible impact to a sensitive or important resource, but requires prompt corrective action and site-specific attention to prevent such effects. Typically aligned with Project definitions for Severity Level 1 incidents with the additional inclusion of any violation of a stated numerical limit (for example, permit condition, mitigation measure) and any Severity Level 0 spill incidents.	Level II non-conformances will generate a corrective action request and a formal Non-Conformance Notice. Level II non-conformances will result in a Stop Work Order in situations where work activity is ongoing and will cause immediate damage/impact. Repeated Level II non-conformance may have the disposition and tracking escalated to a Level III non-conformance level if left unresolved.
Level III	A critical non-conformance situation, typically including observed damage to, or a reasonable expectation of, impending damage or irreversible impact to an identified resource or community. Typically aligned with Project definitions for Severity Level 2 and 3 incidents. Intentional disregard of specific prohibitions or Project Standards is also classified as Level III non-conformance.	Level III non-conformances will result in a Stop Work Order, in situations where work activity is ongoing, and will generate a corrective action request and formal Non-Compliance Notice.

The contractors' monthly Construction Environmental Report and Construction Social Report shall include details and the status of all non-conformances and field observations identified during the contractors' verification, monitoring, assessment and audit processes.

The Project shall report to the IESC/Lender Group any non-conformances identified during the verification, monitoring, assessment and audit processes as follows:

- Level III non-conformances will be notified to the IESC/Lender Group as an incident using an Incident Reporting Form.
- Level II non-conformances will be reported to the IESC/Lender Group in summary form as part of the PNG LNG Quarterly Environmental and Social Report.
- Level I non-conformances will be reported to the IESC/Lender Group as a numeric total as part of the PNG LNG Quarterly Environmental and Social Report.

All documentation relating to any non-conformances will be made available as part of the periodic audits undertaken by the IESC/Lender Group.

Field observations will not be reported to the IESC/Lender Group directly, however, all documentation relating to any field observation will be made available as part of the periodic audits undertaken by the IESC/Lender Group.

Incidents

All environmental and social incidents will be documented and reported in accordance with established Project procedures. An Incident Management Procedure has been developed by the Project, which indicates the method, level and timing required for reporting an incident dependent upon the severity classification level (Level <0, 0, 1, 2, 3).

A summary of the requirements of the Incident Management Procedure, as it pertains to environmental and social incidents, is presented below.

Contractors must notify the Project immediately following the occurrence/discovery of an environmental or social incident at any Project worksite.

Environmental or social incidents include, but are not limited to:

- Spills (oil, chemical, drilling fluids). All spills are reportable to the Project and Exxon Mobil Development Company.
- Chemical and light hydrocarbon releases into the atmosphere (reportable quantities).
- Unauthorized use of land.
- Community incidents (contractors shall work closely with the Project prior to commencement of work to define these).
- Damage to, or destruction of, public infrastructure.
- Unauthorized damage to cultural artifacts.
- Permit and regulatory compliance excursions (for an event that involves multiple excursions, each excursion must be reported independently).
- Violations of any applicable local, state, national or international law or rule, regardless of whether or not it is cited in a permit.
- Fines.
- Enforcement proceedings.
- Near miss incidents.
- Worker unrests/strikes.

In all cases, the report shall contain, as a minimum, the date, time, location and description of events, materials involved, volumes for spills and releases, root cause analysis, remedial actions taken and corrective actions required to prevent future occurrences.

Corrective Actions

An Environmental and Social Action Tracking System is maintained by both the Project and contractors to include the details of all environmental and social incidents, identify remedial/corrective action required, assign actions and timings to responsible parties and indicate the status of the remedial/corrective action. The monthly contractors' Construction Environmental Report and Construction Social Report includes a summary of all incidents having occurred in the reporting period and the status of the associated remedial/corrective action.

This Quarterly Report, which is provided to the IESC/Lender Group, includes a summary of all incidents (including contractor and subcontractor incidents) that have occurred in the reporting period.

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