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**PERU LNG**

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**Independent Environmental and Social Monitoring – IESM  
September 15 to 17/2010 Monitoring Mission**

**Pipeline Final Report**

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October 2010



**JGP**

**Consultoria e  
Participações Ltda.**

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## **Independent Environmental and Social Monitoring – IESM September 15 to 17/2010 Monitoring Mission**

### **Pipeline Final Report**

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## **1.0**

### **Introduction**

This is the Final IESM Quarterly Monitoring Report on the PERU LNG Pipeline referring to Q2 2010. It summarizes progress on the Project reported by PERU LNG in its Q2 2010 ESHS Report and IESM supervision and monitoring activities performed during the September 15<sup>th</sup> to 17<sup>th</sup> 2010 Mission to the Pipeline. During this Mission, only the Western sector of the RoW was inspected, as the Central sector had been the focus of the previous mission.

It is important to highlight that the September Mission coincided with the transition to the Project's operation phase.

Construction of the pipeline was finalized in Q1 2010 and commissioning was concluded in early April 2010. Hence, during Q2 2010 the pipeline was fully operational and delivering gas to the LNG Plant at Melchorita. The maintenance contractor (COGA) was contracted and was already mobilized. Most reinstatement, geotechnical and biorestitution works had been successfully completed with only minor segments pending (to be executed by COGA). The walking inspection of the RoW, carried out jointly between PERU LNG and COGA, was also nearing completion and punch-list observations will begin to be corrected. Bio-restoration has been implemented at all above ground installations (AGIs).

During operation, ESHS issues affecting maintenance activities along the pipeline will involve impacts and risks similar to those of reinstatement and bio-restoration activities during construction, albeit at a much smaller scale. Construction compliance assurance procedures put in place by PERU LNG to supervise the pipeline contractor, will continue to be applicable, as necessary to assure that COGA complies with all ESHS commitments.

Several Western segments of the RoW (Kp 408 to Kp 280) were inspected *in situ* and by air (helicopter overfly). In addition to inspection of the Western sector of the RoW, ongoing environmental and social programs and internal and external E&S assurance procedures were also verified.

Simultaneously, several meetings were held focused on presentation of activities developed by PERU LNG, both at Project sites and at nearby communities.

All activities were accompanied by the environmental, social and health and safety staff of PERU LNG, as pertinent during each Mission activity.

Lender representatives participation in the Mission included:

Ximena Herbas	Environmental Specialist – IDB
Rosa Orellana	Environmental Specialist - IFC
Maria da Cunha	Social Specialist – IDB
Leyla Day	Social Specialist – IFC



JGP's monitoring team included:

Alejandro Dorado	Ecologist – Environmental and Biodiversity Specialist
Humberto Vera	Local Environmental and Health and Safety Specialist
Guillermo Salas	Local Social Specialist

## **2.0 List of Monitoring Activities**

September 2010 IESM Mission planning was conducted during the preceding weeks, with the objective of defining inspections to be performed, meetings to be held and other activities to be included, based on information obtained from previous Missions. This Mission concentrated on analysis of PERU LNG's Q2 2010 Report and on proper completion of reinstatement, geotechnical and biorestitution works during the field visits, as well as on information forwarded by PERU LNG on the pipeline commissioning process.

It is important to note, as mentioned in previous reports, that the IESM Missions are necessarily selective, as it is not possible to visit all work fronts and/or review all environmental and social programs and documents during each Mission. Therefore, Mission planning is a key success factor, and cooperation and logistic support from PERU LNG is essential. The IESM Team wishes to register that it received full support from PERU LNG during the September Mission, as necessary to effectively execute all planned activities. In spite of this, in some cases, time planned and effectively available for some activities limited the scope of review that was possible. Long distance trips were necessary to visit different regions and to meet with local players. Reference to time limitations included in this report are meant only to justify limits to the IESM Team's scope of review and should not be interpreted as an indication of lack of cooperation by PERU LNG.

Activities during the Mission included:

### Wednesday - September 15<sup>th</sup>, 2010 (Chincha):

Environmental and H&S group (Ximena Herbas, Rosa Orellana, Alejandro Dorado and Humberto Vera):

Morning

- Environmental Meeting: Pipeline Environmental Activities carried out in the quarter, Actions taken regarding recommendations from last IESM Mission, Biorestitution activities.

- Visit to La Bolívar decommissioned Camp.
- Visit to Valve #10 region.
- Reinstated RoW (between valves #10 and 11).

*Afternoon*

- Visit to Santa Beatriz Camp.
- Visit to Valve #11 region.
- Reinstated gravel access road.
- Travel to Pisco-Paracas.

Social Group (Maria da Cunha, Leyla Day and Guillermo Salas):

*Morning*

- Travel to Huaytará Community.
- Meeting with community representatives and project beneficiaries.
- Meeting with CONOPA – Camelid Shearing materials module.

*Afternoon*

- Visit Ayavi Community.
- Huatascocha Irrigation Project
- Meeting with community representatives and project beneficiaries.
- Travel to Pisco-Paracas.

Thursday - September 18<sup>th</sup>, 2010:

Environmental and H&S Group:

*Morning*

- Meeting with Pipeline Maintenance Contractor (COGA).
- Helicopter flight along the Pipeline RoW, between the LNG Plant and Huaytará region (Kp 408 to Kp 280).

*Afternoon*

- Travel to Lima.

Social Group:

*Morning*

- Meeting with Pipeline Maintenance Contractor (COGA).
- Meeting with PERU LNG Community Affairs Team.

*Afternoon*

- Travel to Lima.

Friday - May 28<sup>th</sup>, 2010:

*Morning*

Environmental and H&S Group:

- Meeting with Smithsonian Institution at COLP Office.
- Desk review of Marine Activities.
- Biodiversity Monitoring Program.

Social Group:

- Pipeline Compensation Status Review at COLP Office.

*Afternoon*

All participants

- Internal meeting, at COLP Office, between Lenders and IESM team.
- Wrap-up meeting for the September IESM Mission to PERU LNG.

### **3.0 Summary of Commissioning Progress**

#### **3.1 General**

Pipeline construction work, as reported by PERU LNG, was completed during Q1 2010 and mechanical assembly was completed in January 2010. All the Pipeline Contractor camps and all other facilities were demobilized and reinstated, except for Santa Beatriz.

Biorestitution and geotechnical works were completed. By the time of the September 2010 IESM Mission, the completion of a few works was not possible due to community issues mainly at Vinchos Community that impeded continuity of works until claims for indemnification of alleged damages were resolved. For instance, Kp 113+500 to Kp 113+800 is still pending. PERU LNG reported it expects to conclude these works in October, as soon as independent reports on the status of impacts on Vinchos community are delivered and final agreement is reached with this community.

PERU LNG informed that during Q2 the maintenance contractor (COGA) completed the baseline survey of all above ground installations (AGI), including the main line valves (MLVs), scrapper facilities and Chiquintirca metering station.

Mobilization of field support crews was started. COGA and PERU LNG started joint walking surveys of the pipeline RoW.

At the time of the September Mission, the walking inspection of the RoW, carried out in conjunction with the maintenance contractor (COGA), to identify erosion and integrity problems had advanced to 90%, missing only 15 km in the narrow ridges sector and 15 km between Kp 170 and 190. The evaluation of the access roads had advanced 60%. To finalize these activities, mobile camps will be set up. The first one will be in the Anchiuay community and is estimated to be operational for about 4 weeks.

It was reported that a biorestitution evaluation/monitoring survey was begun on Saturday September 11.

All shooflies and running tracks were closed. Additionally, it was reported that the access road to Ccochas was improved and seeding activities along the reinstated road will be done after the rainy season.

Along the Western spread, geotechnical / reinstatement works were finished. Biorestitution was executed only where necessary along this spread (in the highland sectors subject to rainfall but not along the coastal desert). Success of biorestitution was verified during the helicopter overflight and is registered in the Photographic Records of the Mission (**Annex 03**).

As PERU LNG informed, completion of installation of the Central Control Room at the LNG Plant is finished.

## **4.0 Summary of ESHS Performance**

### Scope of the IESM Team's Review

During the Mission, the IESM Team carried out inspections by land (September 15<sup>th</sup>) and by air (September 16<sup>th</sup>) between the LNG Plant (Kp 408) and Huaytará Region (Kp 280) in the Western Spread.

Main aspects inspected along the Pipeline right-of-way were:

- Quarry
- Quebrada San Juan
- AGIs
- Valve # 10
- Topará area
- La Bolivar campsite
- Valve # 11
- Santa Beatriz campsite
- High Consequence areas (Chincha Region)
- Kp 280 (Huaytará Region)

### 4.1 Environmental Compliance

During the visit, the RoW was generally observed to be appropriately reinstated and clean and, in many sectors, it was virtually indistinguishable from its surroundings. The valves were operating normally and those located in remote locations did not have security personnel but were monitored with video cameras and alarms from the Control Center at the LNG Plant.

In general, the reinstatement and bio restoration observed during the September Mission was considered excellent. It was reported that the only pending reinstatement was in about 250 m of the RoW at the Vinchos community.

All camps have been closed; Santa Beatriz was in its final decommissioning process during the September Mission. Closure date is foreseen for early October.

No environmental compliance issues observations were identified with the exception of some minor oil stains in the area of the former La Bolívar camp and in the Santa Beatriz camp.

#### 4.2 Health and Safety Compliance

No compliance issues were raised in relation to health and safety issues during the September 2010 IESM Mission.

#### 4.3 Social and Community Relations Compliance

Social and community affairs management were also found to be in compliance with project commitments during the September 2010 IESM Mission.

### **5.0**

#### **Internal E&S Assurance**

##### 5.1 PERU LNG's E&S Supervision and Audits

PERU LNG informed that COGA, its pipeline maintenance contractor since June 2010, is also responsible for maintenance of the TGP pipeline and will carry out its activities sharing coordination and support facilities already in place. All such support facilities will need to be compliant with Project requirements and will be subject to inspection during future IESM Missions.

Organization and planning of environmental and safety aspects will be integrated for both pipelines, but dedicated field supervisors will be assigned to the PERU LNG pipeline. The field supervisors will be based in Huamanga and PS3, and safety supervisors will be based in Huamanga and San Clemente.

Ground installations, geotechnical work, RoW monitoring, safety, surveillance, logistics and environmental mitigation are all included as maintenance activities under COGA's responsibility.

COGA's activities related to safety and environmental issues will be supervised by PERU LNG. Community Affairs issues will be managed directly by PERU LNG and when necessary, COGA will inform PERU LNG's Community Affairs staff about specific complaints or grievances. Grievance response will be managed by PERU LNG.

COGA has established internal inspection targets. The target in Q2 was 74 environmental audits and inspections. PERU LNG reported that a total of 69 were completed, achieving 92% with respect to the defined goal.

According to PERU LNG, it conducted several environmental inspections, accompanied surveys (including the walking inspection of the RoW), and conducted monitoring activities during Q2.

As part of the camps decommissioning process, soil analysis was conducted. Although no reportable spills occurred, soil samples were taken to ensure that fuel stations and hydrocarbon storage areas have no contamination. Laboratory results identified no contamination issues at camp locations. In addition, compost analysis carried out at La Espera camp confirmed the absence of *Salmonella*.

## 5.2 Construction Related Monitoring and Performance Assessment

Results from monitoring during April, May and June 2010 (Q2) were presented to OSINERGMIN in the monthly monitoring reports and are summarized here.

### Water Supply Monitoring

The results from monitoring water sources at active camps during Q2 2010 are shown in **Table 5.2-1**. According to the supply source’s monitoring schedule, only Puquial Rosa 2, the supply source of Santa Beatriz camp, was monitored. Results for Sulphates exceeded the applicable standard of 250 mg/L.

**Table 5.2-1  
Water Supply Source Monitoring Results**

Camp	BOD (mg/L)			Fecal Coliforms (NMP/100 ml)			Total Coliforms (NMP/100 ml)			Sulphates (mg/L)		
	STD: N.A.			STD: N.A.			STD: N.A.			STD: N.A.		
	A	M	J	A	M	J	A	M	J	A	M	J
Santa Beatriz (Western Spread) Water Supply Source: Puquial Rosa 2	<2	-	-	<1.8	-	-	<1.8	-	-	-	402	-

A: April; M: May; J: June.

N.A.: Not applicable.

### Potable Water Treatment Monitoring

Quarterly monitoring of the Potable Water Treatment Plant at the Santa Beatriz camp during Q2 2010 included the following parameters: Total and Fecal Coliforms, Color, Turbidity, Total Dissolved Solids (TDS), Total Hardness, Total Iron, Total Chlorine, and Sulphates. Daily monitoring was also carried out for pH and Residual Chlorine.

Because all other camps were completely or partially demobilized, no Potable Water Treatment Plants were sampled at other camps.

All results except for two of the quarterly Potable Water monitoring conducted in Q2 2010 at the Santa Beatriz camp were in accordance to the applicable standards. Sulphates in April 2010 were measured to be 495 mg/L (limit 250 mg/L). Total Dissolved Solids and Sulphates both exceeded the applicable standard in May 2010,. These parameters will be monitored again in the next period to verify that they do not exceed established standards. The high concentration of Sulphates originates at the supply source. As part of the maintenance work, the sediment filters of the potable water treatment plant will be changed to decrease the quantity of Total Dissolved Solids.

Residual Chlorine and pH at the Santa Beatriz camp complied with the established standards throughout Q2 2010.

### Effluent Monitoring

During Q2 2010, monthly monitoring of effluent outflows was carried out at the Santa Beatriz camp. Monitoring was conducted separately for each effluent stream (blackwater and greywater) to better evaluate the actual performance of the treatment systems, as recommended in the Water Treatment Systems Adjustment Program.

In addition, effluent microbiology was monitored at this camp in accordance with the requirements of the Wastewater Treatment and Disposal Sanitation Authority (DIGESA).

Parameters considered for both black and greywater treatment systems were: Total Suspended Solids (TSS), Biochemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD), Ammonia, Fecal Coliforms, Phenols, Phosphorous and Oil and Grease. Daily monitoring was carried out for the Blackwater Treatment System only and included pH and Residual Chlorine analyses.

The results of daily blackwater monitoring conducted in Q2 2010 complied with the applicable standards for pH measurements. However, all the Residual Chlorine results exceeded the standard value. This is because the Chlorine dose was increased to disinfect the Blackwater Treatment System to decrease the content of Fecal Coliforms.

As established in the ESHS Management System for operation, the reference standards applicable to treated effluents at Santa Beatriz are those established in *Resolución Jefatural N° 0291-2009-ANA* and *Resolución Jefatural N° 0351-2009-ANA – Use Class III*. The only monitoring results which exceeded these standards at the Santa Beatriz effluent treatment plant were BOD and COD.

The presence of Helminth eggs, a microbiological parameter, was also monitored at the Santa Beatriz camp in April and May. All the results were in compliance with the CTA standard.

### Monitoring of Hydrostatic Test Discharges and Water Body Crossings

No water from hydrostatic tests was discharged into water bodies during Q2 2010.

### Soil Monitoring

As part of monitoring of camp closings and to rule out the existence of soil contamination, soil was monitored for Total Petroleum Hydrocarbon (TPH) in April 2010 at the La Bolívar and Rumichaca camps in the Western Spread. In both cases, the zone selected for the sampling was the shop maintenance area and the composting area.

In the Central Spread, TPH monitoring was carried out in the Obrador Ayacucho, Patibamba and Chiquintirca camps, also in the shop maintenance and composting areas.

All results comply with the applicable CTA standards and show that the camps monitored do not have TPH contamination. However, as pointed out herein some minor oil stains on the soil were observed at both La Bolivar and Santa Beatriz camps. The applicable ESHS onshore spill response procedure should be implemented.

No monitoring of TPH levels in the soils was carried out after April as camps (with the exception of Santa Beatriz) were already demobilized.

### Air Quality Monitoring and Dust Control

Monitoring of air quality was carried out in April at the Santa Beatriz camp to determine the concentrations of SO<sub>2</sub>, NO<sub>2</sub>, and CO, particulates smaller than 10 microns (PM<sub>10</sub>), Lead, Ozone and Total Hydrocarbons. All air quality monitoring results in the Santa Beatriz camp were under the CTA limits. No air quality monitoring took place in the Central Spread because the camps there have been demobilized.

Dust monitoring along the access roads did not take place because the pipeline transport activity was over. On the other hand, control of water volumes for dust control was carried out and the total quantity of water used for dust control during Q2 was 155 m<sup>3</sup> in the Santa Beatriz camp.

The Ringelmann Scale was used for measuring point-source emissions. Any vehicles that exceeded the established limits were subject to valve calibration, pump repair and maintenance to improve their performance.

### Noise Monitoring

Results of noise monitoring conducted during Q1 2010 at the valve station at Chiquintirca / Nueva Ccolpas were verified after the mission as only the Central Spread of the Pipeline was inspected during the September Mission. Monitoring was conducted during ten (10)

continuous 10 minute periods, eight (08) of which during daytime and only two (02) that can be considered nighttime measurements. All ten results were within the 51 dB(A) and 58 dB(A) range. Two daytime measurements were above the 55 dB(A) standard (Period 1 between 11:55 am and 12:04 pm, with  $LA_{eq}$  55.44 dB(A), and Period 3 between 13:55 pm and 14:04 pm, with  $LA_{eq}$  of 57.70 dB(A)). Both nighttime measurements were above the applicable 45 dB(A) project standard (51.65 dB(A) and 52.84 dB(A)). Birds and a small bus passing by were noted as factors influencing those measurements.

The nighttime measurements are significantly above project standards and further analysis will be necessary to verify if this is the result of project-related noise or other background community noise. This should involve complementary monitoring and should contemplate a wider array of locations at Nueva Ccolpas as well as some indoor measurements. Consultation with community leaders on noise-related discomfort would also be desirable.

PERU LNG also reported that during Q2 2010 noise was monitored only in the Western Spread camp of Santa Beatriz. Results from this monitoring showed that none of the noise levels exceed the established limits – with the exception of Station 2, located 10 m from the exit of the camp dining facility. This Station is located about 20 m from the generator, and noise was measured on April to be 78.7 dB(A), above the applicable standard of 70 dB(A). This measurement was high because of this Station's proximity (3 m) to the refrigerated chamber.

No sensitive areas were monitored during Q2 2010 because construction work in these areas was completed.

### Solid Waste

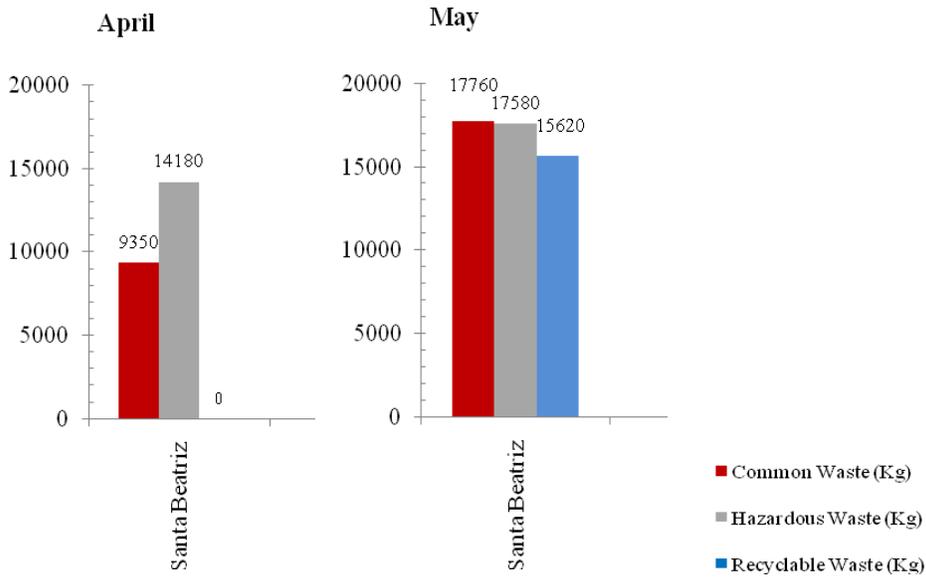
On April 29, 2010, the final solid waste collection and transport service to the Relima landfill was carried out. This service is executed by Green Care Perú S.A., certified by DIGESA.

The companies contracted for final disposal located in Lima are and all are duly permitted:

- Non-Hazardous Wastes: Relima, Vega Upaca S.A.;
- Hazardous Waste: Befesa;
- Recyclable Waste: Green Care Perú S.A.;
- Medical Waste: Relima, Vega Upaca S.A.;
- Oil Wastes: Green Care Perú S.A.

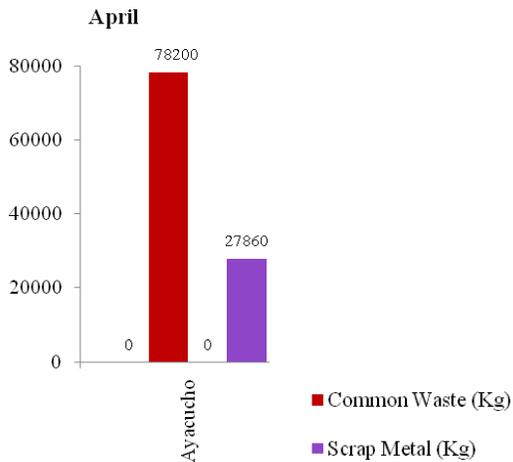
The amounts of solid waste generated in the Western Spread camps and sent to final disposal during Q2 2010 are shown in **Figure 5.2-1**.

**Figure 5.2-1**  
**Wastes Generated in the Western Spread Camps and Sent to Final Destination**



The amounts of solid waste generated in the Central Spread camps and sent to final disposal during Q2 2010 are shown in **Figure 5.2-2**. No waste was generated during the months following April in the Central Spread camps.

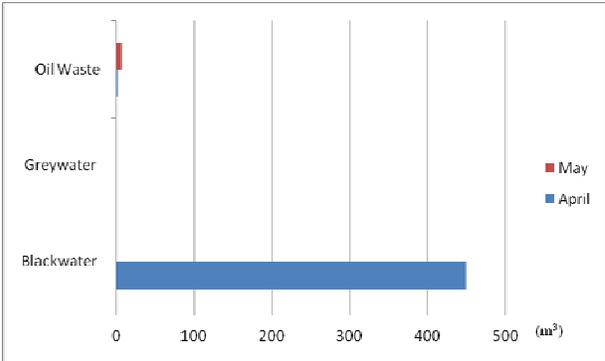
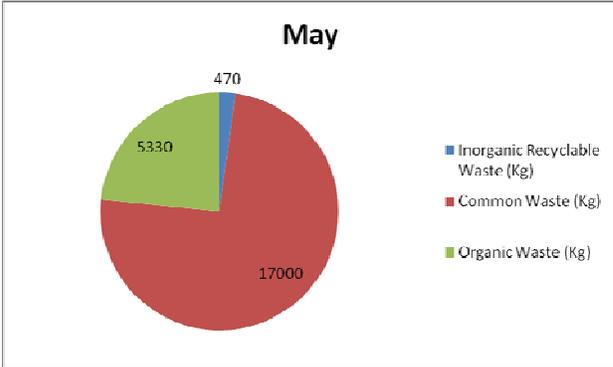
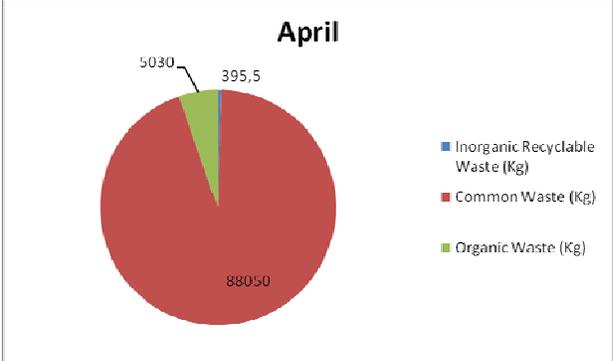
**Figure 5.2-2**  
**Wastes Generated in the Central Spread Camps and Sent to Final Destination**



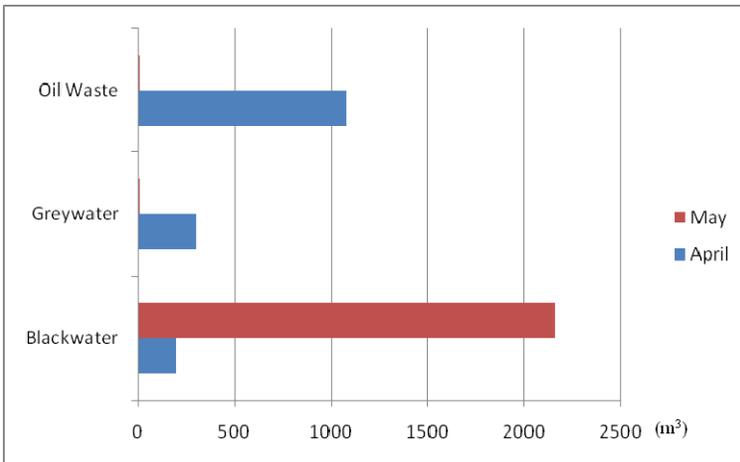
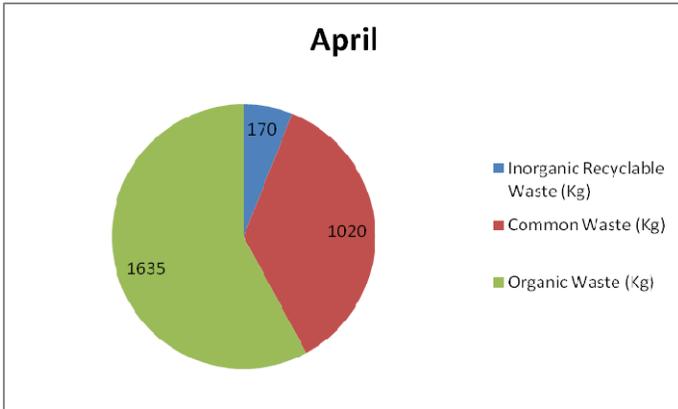
Classification of the total amount of solid waste (inorganic recyclable, organic and common wastes), generated in the camps, including liquid wastes, is shown in **Figure 5.2-3** (Western Spread) and in **Figure 5.2-4** (Central Spread). Only net waste sent to a final destination was considered and not the volumes reused in the campsites.

Inorganic recyclable waste, including mainly paper, cardboard, plastic and wood, was sent to Green Care Perú S.A. for subsequent resale. Organic waste was sent to the composting cells located in the campsites for subsequent use as organic compost.

**Figure 5.2-3**  
**Classification and Total Amount of Waste (Solid and Liquid) Generated in the Western Spread Camps**



**Figure 5.2-4**  
**Classification and Total Amount of Waste (Solid and Liquid) Generated in the Central Spread Camps**



**6.0**  
**External E&S Assurance**

**6.1 OSINERGMIN Inspections and Observations**

During Q2 2010, OSINERGMIN conducted 8 environmental and social audits totaling forty-one days of H&S inspections/audits at the Pipeline. Only minor observations were recorded. The environmental audits focused on the Pipeline, shooflies, access roads, camps, Land & Easement compensation agreements, grievance resolution, community relations, livelihood improvement, local hiring and communication programs.

**Table 6.1** summarizes OSINERGMIN observations resulting from the 41 days of audits.

**Table 6.1**  
**Observations by OSINERGMIN**

Month	Description of Field Observations
April 2010	<p><b>Environmental</b></p> <p>1. <u>Area Inspected</u>: Five-day audit conducted in Central and Western Spreads, including pipeline ROW (KP 0 – KP 1, KP 6+500 – KP 8+500, KP 27+500 – KP 31+000, KP 54+500 – 56+500, KP 112+500 – KP 120+000 and KP 167), shooflies and access roads in Suyubamba &amp; Lillinta-Ingahuasi Communities and Chiquintirca, Suyubamba, and Patibamba camp areas.</p> <p><u>Observations</u>: No field observations were raised requiring follow-up.</p>
	<p><b>Social</b></p> <p>2. <u>Area Inspected</u>: Four-day social audit conducted in the Western spread. Areas and topics evaluated included:</p> <ul style="list-style-type: none"> <li>• Compliance with the Land &amp; Easement compensation agreements</li> </ul> <p><u>Observations</u>: No field observations were raised requiring follow-up.</p> <p>3. <u>Area Inspected</u>: Five-day audit conducted in the Central spread. Topics evaluated included:</p> <ul style="list-style-type: none"> <li>• Review of PMSAP status and progress.</li> <li>• Fulfillment of commitments with Accobamba, Anchihuay and Vinchos communities.</li> <li>• Grievances status review.</li> <li>• Compliance with the Community Relations Plan, Local Hiring procedures and Communication Programs.</li> </ul> <p><u>Observations</u>: No field observations were raised requiring follow-up.</p>

Month	Description of Field Observations
May 2010	<p><b>Environmental</b></p> <p>4. <u>Area Inspected</u>: Four-day audit conducted in Western Spread, including the Pipeline RoW (KP 170, KP 190 - KP192 and KP 275 – KP 279), Pisco, Chico, and Matagente River crossings, Topara creek crossing and Rumichaca, Huancaccasa &amp; Santa Beatriz camps.</p> <p><u>Observations</u>: OSINERGMIN requested the following complementary activities:</p> <ul style="list-style-type: none"> <li>• Rumichaca camp: Maintenance/cleansing of grease traps, effluent storage tanks, and concrete slabs of the wastes storage area.</li> <li>• Matagente River crossing: Improvement/maintenance of riverbank protection Works.</li> </ul> <p>5. <u>Area Inspected</u>: Four-day audit conducted in Central and Western spreads, including the pipeline ROW (KP 69 - KP 74, KP 76 – KP 78, KP 81 – KP 82, KP 87, KP 93 – KP 95, and KP 112+500 – KP114+500), MLV N° 3 (KP 77+614), MLV N° 4 (KP 94+288), and MLV N° 5 (KP 113+705), as well as Patibamba, Acocro and Chaquicocha camp areas, KP 43 access road, KP 45 shoofly and Torobamba &amp; Vinchos River crossings.</p> <p><u>Observations</u>: OSINERGMIN recommended biorestitution works of the outstanding 250 m of RoW within Accopampa Annex (Vinchos) be completed by October 2010.</p>
	<p><b>Social</b></p> <p>6. <u>Area Inspected</u>: Seven-day special audit conducted in the Central spread. Areas and topics evaluated included:</p> <ul style="list-style-type: none"> <li>• Compliance with the Land &amp; Easement compensation agreements.</li> </ul> <p><u>Observations</u>: One minor field observation was issued regarding a grievance related to alleged damaged premises in San Miguel. The grievance was solved in 2008. Records and documents evidencing the closure as per the approved grievance procedure were submitted to OSINERGMIN. The field observation was adequately addressed.</p> <p>7. <u>Area Inspected</u>: Seven-day audit conducted in the Western spread. Areas and topics evaluated included:</p> <ul style="list-style-type: none"> <li>• Review of PMSAP status and progress.</li> <li>• Livelihood Improvement Program status review.</li> <li>• Compliance with the Community Relations Plan, Local Hiring procedures and Communication Programs.</li> <li>• Grievances status review.</li> </ul> <p><u>Observations</u>: No field observations were raised requiring follow-up.</p>

Month	Description of Field Observations
June 2010	<p><b>Social</b></p> <p>8. <u>Area Inspected</u>: Five-day audit conducted in the Central spread. Areas and topics evaluated included:</p> <ul style="list-style-type: none"> <li>• Review of PMSAP status and progress Livelihood Improvement Program status review.</li> <li>• Compliance with the Community Relations Plan, Local Hiring procedures and Communication Programs.</li> <li>• Grievances status review.</li> </ul> <p><u>Observations</u>: No field observations were raised requiring follow-up.</p>

Source: PERU LNG 2Q 2010 ESHS Quarterly Report

## 6.2 IESM Missions

### *Action Taken on IESM Team’s Previous Recommendations*

In the previous IESM Report (May Mission), a total of 12 recommendations remained open (as consolidated in the corresponding Recommendation Tracking Table – **Annex 02**). Of these, 10 were issued as a result of the May 2010 IESM Mission, and two (02) were pending from previous missions.

Five (05) of those 12 recommendations were closed on the basis of information received during the September Mission, either as a result of action by PERU LNG or because they are no longer pertinent in the Project’s current phase. The status of the nine recommendations that remain pending is presented below:

Date of Issue: 07.10

On the Pipeline Punch List (for use by the maintenance contractor – COGA), activities are classified by priority, but the criteria used for this classification are not included. It is recommended that the criteria to be used be included, considering aspects of duct integrity, potential for social conflict, and erosion and security risks.

Corrective Action Reported	IESM Team Status Assessment
<p>In its Q2-2010 Report, PERU LNG informed:</p> <ul style="list-style-type: none"> <li>▪ The Pipeline Punch List submitted to Lenders as part of the requested documentation from May’s IESM mission consist mainly of information collected at the end of the construction period.</li> <li>▪ The Punch List will be improved and updated based on the results of the joint inspections to the RoW and AGI that are being conducted between PERU LNG and the Maintenance Contractor.</li> </ul>	<p>The IESM Team considers that adequate adjustments of the Punch List procedure have been introduced. However, will want to verify the adjusted procedure in use before proceeding to close this recommendation.</p>

<ul style="list-style-type: none"> <li>▪ List will include findings considering different aspects such as: pipeline integrity, potential for social conflicts, erosion control, security risks, etc.</li> <li>▪ Items will be classified by priorities in order to adequately define the activities (and priorities) to be performed by the Pipeline Maintenance Contractor.</li> </ul> <p>During the September Mission, the following update was provided:</p> <ul style="list-style-type: none"> <li>▪ Criteria of priorities for maintenance contractor activities has been included in Patrolling Survey Reports.</li> <li>▪ Issues involving waste presence or generation, hydrocarbon or chemical management are rated on the Pollution Prevention column.</li> <li>▪ Issues involving erosion, revegetation and pipeline integrity are rated on the Erosion Control/Reinstatement column.</li> <li>▪ Issues involving community interests are rated on the Social Issues column.</li> <li>▪ Issues shall be qualified as 0 (if not applicable), 1 (if action required to be taken in mid-term period) and 2, (if action is required in a short term period).</li> <li>▪ Examples of the criteria were presented.</li> </ul>	
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Date of Issue: 07.10

Along the reinstated Cochas access, additional slope breakers should be implemented near the Alto Mayo side.

<b>Corrective Action Reported</b>	<b>IESM Team Status Assessment</b>
<p>From the Q2-2010 Report:</p> <ul style="list-style-type: none"> <li>▪ Additional slope breakers will be implemented during regular maintenance activities prior to the next rainy season.</li> </ul> <p>From the information provided in the IESM Mission (See TAB 05-Ppt Env Pipeline from September 2010 Mission)</p> <ul style="list-style-type: none"> <li>▪ Erosion control measures are being gathered during Patrolling Surveys walkthroughs. All findings will be implemented by Contractor ROW maintenance crews.</li> <li>▪ This item can be verified in the next IESM Mission.</li> </ul>	<p>Implementation of corrective action is still pending. The IESM Team will require evidence of completion of this work if physical inspection of this location proves unfeasible during the next mission.</p>



Date of Issue: 07.09

Define specific KPIs to be adopted for performance assessment of the Livelihood Reestablishment Assistance Action Plan to be performed by Atinchik.

<b>Corrective Action Reported</b>	<b>IESM Team Status Assessment</b>
<p>PERU LNG has responded it has developed specific progress indicators for this program and has been reporting on them in the Quarterly Reports.</p>	<p>The IESM Team considers progress indicators are only indicating status of program implementation but do not reflect performance. The progress indicators do not provide grounds for assessing the results of the program or its positive impacts on the communities in which it was implemented.</p>

Date of Issue: 07.10

The Community Affairs team should maintain a strong presence along the RoW during initial operation months to continue addressing any concern that stakeholders might have regarding the pipeline's operation.

<b>Corrective Action Reported</b>	<b>IESM Team Status Assessment</b>
<p>With respect to this recommendation, PERU LNG has reported:</p> <ul style="list-style-type: none"> <li>▪ PERU LNG's Community Affairs team maintains an important presence throughout the direct area of influence of the pipeline.</li> <li>▪ Community Affairs representatives are now organized in three working areas distributed to adequately cover the entire RoW. (Ayacucho, Huaytará, and Coast.)</li> </ul> <p>Furthermore, the Company points out that the ESHS-MS Roles and Responsibilities Plan includes organization charts that indicate that the Community Affairs team will maintain a strong presence along the RoW.</p> <p>Additionally, PERU LNG has indicated that as per the Common Terms Agreement CTA - 5.17 (j):</p> <ul style="list-style-type: none"> <li>▪ A letter certifying that PERU LNG has allocated the necessary financial resources and appointed the required personnel to fully and effectively implement and comply in all material respects with all E&amp;S requirements is submitted every year in October.</li> <li>▪ The latest communication in this regard was submitted to the Intercreditor Agent (ICA) on October 25, 2010 and covers the 2011 period (PLNG-SG-215-10).</li> </ul>	<p>The IESM Team understands that the sufficiency of the Community Relations team can only be confirmed on the basis of experience. Hence, it will verify this during the next mission.</p> <p>It is further pointed out that all information relative to action upon IESM Team recommendations that PERU LNG considers relevant should be in the Quarterly ESHS Reports.</p>



Date of Issue: 07.10

The process of closing the Livelihood Improvement Program should be planned and coordinated, when possible, with the other social programs that PERU LNG is funding. Furthermore, it is recommended that PERU LNG develop a system to follow-up on projects to maximize the success of communities in obtaining funding.

Corrective Action Reported	IESM Team Status Assessment
<p>PERU LNG has indicated that Social Investment Programs are not Project or CTA Commitments, nor EIA requirements but additionality. As such, this should be a suggestion only. Furthermore, the Company argues that It has implemented the Livelihood Improvement Program according to the agreed TORs and commitments.</p> <p>Additional comments received from the Company in this respect:</p> <ul style="list-style-type: none"> <li>▪ PLNG seeks to ensure a consistent and coordinated approach to stakeholders’ engagement throughout the areas of influence, as defined in the ESIA’s.</li> <li>▪ The Stakeholder Engagement Plan submitted to lenders and JGP includes a schedule of planned visits to vulnerable communities and to communities where investment initiatives are being carried out.</li> <li>▪ According to this schedule: “Communities where social investment programs are being implemented and communities classified as highly vulnerable” shall be visited “twice a month”.</li> <li>▪ In these visits, CROs will: i) provide timely information and updates regarding Company activities; ii) provide opportunities to stakeholders to voice their opinions and concerns in a way which is most appropriate to their circumstances; and iii) provide an opportunity for feedback from communities regarding any changes during operations.</li> </ul>	<p>The IESM Team agrees to classify this is a suggestion (“Type 4 in the recommendation categorization table in Section 10.0).</p> <p>The IESM Team insists that this is a highly pertinent suggestion that requires very marginal effort from PERU LNG and that can contribute to significantly enhancing the final outcome of the Livelihood Improvement Program.</p> <p>Activities under the Stakeholder Engagement Plan, as described in this table, do not constitute follow-up of projects for which communities have requested funding from government entities.</p>

Date of Issue: 07.10

A clear strategy should be in place for cases of closure of Social Responsibility Projects, as failure of some initiatives to sustain themselves over time may result in negative impacts that outweigh any initial benefits. This strategy should certainly include monitoring and follow-up

Corrective Action Reported	IESM Team Status Assessment
None.	Action on this recommendation has not yet been reported.



Date of Issue: 03.10

Though it was not inspected, it was reported that an access road built for the Project near Oscococha, will not be reinstated and will remain operational after construction at the local communities' request. This access is 4.8 km long and will serve the community of Anchiuay and Chiquintirca. Currently, topsoil is piled along the alignment, with provisional fences to contain runoff. It will be essential that this road be delivered complete to the local communities. This means that the provisional fences must be removed and the top soil piles need to be spread and/or stabilized as appropriate. Proper road drainage needs to be completed as well, and any area lacking vegetation cover should be bio-restored. Only then should the access be delivered to the communities that will from then on be responsible for its maintenance. The IESM Team identifies the Oscococha access as a significant potential source of reputational risk.

<b>Corrective Action Reported</b>	<b>IESM Team Status Assessment</b>
PERU LNG has since reported that it will be implementing reinstatement and bio-restoration measures before delivering the access road to the community and that it will be submitting and Environmental Management Plan to DGAAE for approval. As of the September Mission this EMP had not yet been submitted.	The IESM Team will want to review the EMP once it is ready and will close this recommendation once all geotechnical, drainage, reinstatement and/or bio-restoration works in the EMP have been implemented and it has a chance to inspect them.

During the September 2010 Mission, the IESM Team issued 13 recommendations for the Pipeline, one related to the Company's own E&S assurance procedures, two (02) requiring PERU LNG to request corrective action from the maintenance contractor (COGA), six (06) relative to ongoing E&S Programs; two (02) relative to Additionality Projects (i.e. suggestions), and two (02) relative to improved reporting (Type 5). These are presented in **Section 10.0**.

## 7.0

### **Environmental and Social Program Implementation and Performance**

#### 7.1 Biodiversity Monitoring Program (BMP)

##### *Progress Reported by PERU LNG*

This program is developed between PERU LNG and the Smithsonian Institution's Centre for Conservation, Education and Sustainability (CCES).

During Q2 the BMAP continued with the implementation of the monitoring protocols, as well as the development of two new protocols. 9 field trips were conducted during the quarter. Additionally, five new protocols were implemented and surveys of 2 (two) new protocols commenced (marine benthos and biorestation).

During the September 2010 IESM Mission, the Smithsonian Institution (SI) Team Director presented 17 survey protocols and 1 for biorestitution, totaling 18 survey protocols. Every protocol gathers information from experimental and control sampling points.

The biorestitution protocol will be carried out in 10 (ten) habitats and it will monitor the results of the biorestitution program while fulfilling BMAP objectives relating to Andean grasses. For seashore birds, the protocol will be implemented in ELU 15.

SI affirmed that all the terrestrial protocols were implemented; some of them are in final analysis stage. 15 of the Ecological Landscape Units (ELUs) identified in the Project's EIA were covered (14 terrestrial and 1 marine) and 15 out of 16 vegetal formations were covered too. The taxonomic groups contemplated were: vascular plants, fishes, amphibians, reptiles, birds and mammals.

In addition, SI reported that during the next quarter the terrestrial protocols will be completed and, if necessary, the protocols will be modified and new protocols defined.

#### *Scope of the IESM Team's Review*

During the September 2010 IESM Mission, selected BMAP program documents were discussed. SI's Director made a progress update presentation on the BMAP.

#### *Compliance Assessment*

The BMP is being developed as planned and in compliance with the established commitments. Monitoring protocols were concluded for: *Polylepis sp* (tree), *Atlapetes melanopsis* (brush finch), *T. kalinowskii* (mouse), *Eriotheca sp* (tree), *Oreonympha nobilis* (hummingbird), *Telmatobius sp* (frog), *Leopardus jacobita* (cat), Bofedal vegetation, Bofedal birds, *Trichomycterus sp* (catfish) and *Orestias sp* (Andean fish), *Liolaemus sp* (lizard), *Cleistocactus sp* (cactus), *Platalina genovensium* (long-snouted bat).

Justification for not including seabirds in the BMP is necessary as this was in the original Program's commitment.

#### *Results Assessment*

Several species were initially established as environmental indicators in different ELUs. Survey activities contributed to correcting the range distribution for some species and to selecting new species. This improved database is being used on academic papers and is being publicized to the scientific community. PERU LNG and the CCES described a new publication with all the results, due this year.

As informed before, an improvement and refinement can be observed in the experimental designs of the detailed protocols, as well as correction of the range distributions of the species studied. In addition, as mentioned earlier, confirmation and/or correction of occurrence of species has taken place, as well as the education and training of Peruvian professionals.

Currently, the Program team is also focusing on reporting and data analysis.

### *Conclusions and Recommendations*

Justification for not including seabirds in the BMAP is necessary as this species may be affected by project-induced changes (particularly coastline changes).

Though monitoring results to date do not indicate any material impact on the monitored species, it will be desirable to disseminate results with local stakeholders.

### 7.2 Ecological Management Plan and Biorestoration Program

#### *Progress Reported by PERU LNG*

The pipeline route has been divided in 15 ELUs with each having a specific Ecological Action Plan – EAP. The EAPs identify the species that required specific mitigation measures.

PERU LNG reported that by July 2010, all Ecological Management Plan (EMP) activities required on the RoW had been completed.

It was further informed that, during Q2 2010, 300 *Kageneckia lanceolata* cuttings were planted and 500 *Orthopterigium huacui* seeds were collected and seeded in the Santa Beatriz nursery.

Other activities implemented in the Ecological Management Plan and Biorestoration Program during Q2 2010 included soil improvement and seeding activities at the Cochas access road and in the Vinchos area (4 Km approximately).

Monitoring results during July 2010 indicated that hydro-seeding had been very successful. Plants germinated and were in a healthy condition. Monitoring of “ichu” translocations and seeded areas showed survival rates above 90%. Indian jute mat used for erosion control adequately protected the seeds while allowing pastures to grow through the mat, stabilizing the soil.

The implementation of the surveillance plan to adequately monitor bio-restored areas and protecting them from grazing by cattle started on January 30 and finished end of May. The plan had been implemented with the support of local workers in 24 communities along the pipeline RoW (Chiquintirca, Qollpa, Anchiuay, Cochac, Uras Allpacorral, Pampahuaylla, Patibamba, Socos, Huaychao, Secceslambra, Yanapiuro, Liriopata, Allpachaca, Toccyasca, Urpaypampa, Acocro, Pinao, Mayobamba, Ccarhuaccpampa, Pilpichaca, Huaytará, Ayaví, Santa Rosa do Tambo).

PERU LNG informed during the September Mission that it is working on bio restoration in Valves 5 and 6 and that there is some geotechnical work between 173+500 Kp and 178+500 Kp (Vinchos Region). A total of 21 people are working (team of 14 assistants and 7 technicians). 250 meters of RoW remain to be restored.

A monitoring and evaluation survey of the bio restoration started on September 11 and was scheduled for completion in 30 days. It will be carried out by 4 technicians and will focus on issues related to jute, applications of phosphoric rock and complementary planting. All data resulting from this survey will be entered into the geographic information system (GIS).

Furthermore, monitoring of bio-restoration, erosion, geotechnical stability, drainage and other aspects along the RoW will be continuous throughout the Project's operation and will assure that any necessary corrective action is promptly implemented.

Finally, it was informed that since shoeflies and access roads have been reinstated, almost the only means of access to the RoW will be by helicopter or on foot. PERU LNG conducts systematic monitoring on foot along the RoW with the maintenance contractor COGA. Up to the closing date of the Mission, it had monitored more than 90% of the pipeline.

#### *Scope of the IESM Team's Review*

During the September IESM Mission, some Ecological Landscape Units (ELUs) were observed by air. PERU LNG supplied additional information about the Program's status during a meeting in Chincha.

#### *Compliance Assessment*

Implementation is compliant with the Program.

#### *Results Assessment*

Results observed during field inspections were very satisfactory.

### *Conclusions and Recommendations*

Biorestitution activities were implemented according to Project commitments and attained very satisfactory results. There are no suggestions or recommendations for this program, except maybe divulge the Program's achievements as they certainly constitute a benchmark of good environmental practice.

#### 7.3 Camelids Management Plan

The monitoring period of the Camelids Management Plan (15 months) was concluded before Q2. Results essentially demonstrated that no material impacts to camelid populations resulted from the Project's construction. The plan was successful and earned PERU LNG an award.

Activities during the quarter were limited to workshops for presentation of results to local communities. The last workshop was held on June 6. The Program is now concluded.

#### 7.4 Pipeline Cultural Heritage Management Plan

The final archaeological evaluation and rescue projects associated with the PERU LNG Project were completed during Q3 2009, and no new archaeological finds have been discovered since that time. Analysis and classification of all retrieved artifacts was concluded during Q2 2010 and all artifacts have now been delivered to INC.

All reports required by the INC (*Instituto Nacional de Cultura*) have been submitted. At end of Q2 2010 the only pending INC approvals were the following:

- Approval of the Final Report for the Kp 200 - 402 Archaeological Monitoring Report (re-submitted to INC in May 26 with response to observations).
- Approval of the Final Report on Chance Find 35 at Kp 205+525 (re-submitted to INC in July 1 with response to observations).
- Approval of the Final Report for the Kp 0 - 200 Archaeological Monitoring Report (submitted to INC in June 4).

## 7.5 Community Environmental and Social Monitoring Program

### *Progress Reported by PERU LNG*

According to PERU LNG's Q2 2010 Report, 77 monitors of 56 different communities and localities along the RoW continue participating in this program (39 in Ayacucho, 24 in San Miguel and 14 in Chincha and Pisco). There has been an increase of 12 monitors in San Miguel while a decrease of 7 in Chincha and Pisco in relation to Q1. During the reporting period 1,096.1 km were covered by inspectors and 1,430 environmental and social monitoring forms were completed. The information gathered has been entered into the Monitoring Information Registry System (SIRM by its acronym in Spanish). The identified shortcomings were forwarded to the Pipeline Contractor and to PERU LNG for response and action when necessary. During the field inspections and in the planning workshops, ProNaturaleza reinforced the training of local monitors (themes covered were: Vegetation cover assessment, monitoring registry information system management, permanent geotechnical works, environmental variables identification, analysis of progress achieved, presentation of reports and environmental and social form components).

According to PERU LNG's Q2 2010 Report, during the reporting period local monitors performed 13 presentations to community leaders and representatives. The local monitors also participated in PERU LNG – Pipeline Maintenance Contractor (COGA) joint surveys along the pipeline RoW.

### *Scope of the IESM Team's Review*

During the September Mission the IESM team was informed that the SIRM was launched openly to the public and to all stakeholders interested in the environmental and social performance of PERU LNG in July. The IESM team has found that the SIRM is available on the internet but is placed in an internet address that is not possible to locate by search engines ([190.223.24.36/pronaturaleza/](http://190.223.24.36/pronaturaleza/)).

During the mission the IESM team was informed that this program will continue, at least for one more year covering the entire RoW, during the Operations phase. The program will be coordinated through the PERU LNG's environmental staff and not, as now, by the Community Affairs staff.

The number of monitors will decrease to 37. It is unclear which 37 communities will be represented from the 56 different communities along the RoW which are currently included in the program according to PERU LNG's Q2 2010 report.

### *Compliance Assessment*

Based on the information included in the PERU LNG Q2 2010 Report and activities conducted during the September Mission, the IESM Team understands that the CEMP is compliant with Project requirements.

### *Results Assessment*

The information included in the Q2 2010 report shows that the program is continuing its positive results in building confidence of the local communities in the Project's environmental governance and as a mechanism through which communities can transmit their environmental and social concerns.

It is also worth mentioning that the program has had the unexpected positive result of preparing the monitors to be future community leaders by raising their self-confidence and their leadership skills.

The SIRM was implemented in order to process and register the environmental and social concerns reported by the monitors and allows PERU LNG to answer such concerns.

### *Conclusions and Recommendations*

The IESM Team suggests:

- To provide the SIRM with an INTERNET address that can be more readily accessed by the broader public.
- To make explicit the logic through which the 37 communities will be chosen for participation in the PMSAP during the operation phase.
- Given that the program will be coordinated in the future by the Environmental area of PERU LNG, there should be adequate coordination with the Community Affairs staff in order to keep improving the social aspects of monitoring.

Based on its review, the IESM Team, concludes that the program is effectively contributing towards building and reinforcing trustworthy relationships with the communities of the RoW and transferring skills so that they can monitor the environmental and social aspects associated with the operation of the Project.



## 7.6 Stakeholder Engagement Management Plan

### *Progress Reported by PERU LNG*

According to PERU LNG’s Q2 2010 Report, 1,226 stakeholder interactions took place. There was a 22% decrease with respect to the Q1 2010 which is related to the reduction of construction activities along the Pipeline RoW.

	%
Social monitoring (general communications, participation in community assemblies, perceptions registers, response to information requests and/or grievances, and coordination with authorities)	65
Construction, Commissioning and Operations activities (notification of commencement of construction, commissioning or operations activities in a specific area, general disturbance communication, accident prevention guidance, and joint inspections with community members)	17
Grievance management (reception and monitoring of grievances according to the grievance procedure)	6
Land & Easement (communications on easement negotiation activities)	5
Others	3
Additionality programs (donations requests and provision of information regarding social investment projects)	1
Environmental & Culture Heritage topics	1
Incident prevention (conflict resolution and conflict monitoring)	1
Local hiring (request and receipt of candidate workers lists from communities and communications between stakeholders and project representatives on local hiring procedures)	0

During Q2 2010, the Stakeholder Engagement plan focused on communicating with the communities and stakeholders about the finalization of construction works and the commencement of maintenance activities by the pipeline maintenance contractor.

During Q2 the monitoring of the High Consequence Areas (HCA) along the pipeline RoW was also a priority. This explains why 65% of these interactions were related to social monitoring. In contrast, construction, commissioning and operations activities, that accounted for 38% of interactions during Q1, represented only 17% of interactions during Q2.

During the mission the IESM Team received the following updated information in relation to July, August and beginning of September 2010: 699 interactions with stakeholders were recorded and they are distributed as follows:

<b>Main theme addressed</b>	<b>%</b>
Social monitoring	74
Construction, commissioning and operations topics	9
Others	8
Grievance management	5
Land & Easement	3
Local hiring	1



This distribution follows the same tendencies registered for Q2 2010.

According to the Q2 2010 report, during the quarter, 31 workshops were held with local stakeholders, with the participation of 544 people:

- Safety measures during operations and maintenance activities - 13 workshops;
- Disclosure of the final results of the camelids monitoring program - 18 workshops.

During the mission the IESM Team was also informed that 9 more workshops on safety measures during operations and maintenance activities were carried out in 9 different communities from July to September, with a total of 179 attendees. These workshops correspond to High Consequence Areas which are being prioritized.

During Q2, PERU LNG received 108 letters from local stakeholders which are distributed according to the following topics:

Topics of received letters	%
Grievances management	37
Goodwill requests (Additionality)	36
Social Monitoring	9
Land and easement	9
Commissioning and Operations activities	6
Environmental & Cultural Heritage	1
Incidents prevention and management	1
Others	1

There were 16 **grievances** received during Q2. The number of grievances has slightly increased with respect to the previous quarter, but it still represents a decreasing tendency since Q2 2009, as shown below:

Quarter	Grievances Received
Q2 2009	132
Q3 2009	47
Q4 2009	30
Q1 2010	10
Q2 2010	16

This decrease is associated with the decrease in the intensity of construction activities and open work fronts along the Pipeline RoW.

By the end of Q2 2010, 76% of the grievances received in Q4 2009, 92% of the grievances received in Q1 2010, and 56% of the grievances received in Q2 2010 were solved. 7 grievances from Q2 2010 remained open by the end of the quarter. The Q4 2009 and Q1 2010 grievances that remain open are related to the Vinchos area and cannot be closed until PERU LNG reaches an agreement with the community.

<b>Grievances Received in Q2 2010</b>	<b>Total</b>
Land and infrastructure damages (Concerns and grievances related to potential damages to water irrigation channels, fences, wells, existing roads, crops, and cattle)	14
Land & Easement (Requests of renegotiation, on modifying existing agreements, grievances related to Land and Easement contracts and obligations)	2
<b>TOTAL</b>	<b>16</b>

There is a slight increase in the number of grievances received regarding damages (from 7 in Q1 to 14 in Q2). The received Land & Easement grievances correspond to alleged use of non negotiated Extra Work Spaces during construction.

<b>Grievances Received in Q2 2010</b>	<b>Total</b>
Minor grievances	8
Grievances which entail considerable risk of evolving into a stoppage and requiring the participation of different areas of PERU LNG or third parties in their solution	8
<b>TOTAL</b>	<b>16</b>

The Q2 2010 Report mentions that at quarter end 2 minor grievances and 5 grievances which entail considerable risk were in process of being solved.

During the mission the IESM Team was informed that 42 new grievances were received from July to September. 9 of them are related to Land and Infrastructure Damages, and 33 are related to Land & Easement. Most of the latter (27) refer to alleged use of non negotiated Extra Work Spaces during construction in the area of Anchiuay.

PERU LNG reported 5 stoppages throughout the pipeline during Q2 2010. This is a sharp decrease in comparison with previous quarters (55 stoppages during Q4 2009, and 18 stoppages during Q1 2010). These figures are also associated with the decrease of construction works along the RoW. All stoppages were resolved within the reporting period. 4 stoppages were resolved within the same day of the occurrence. Only one stoppage remained open for more than a week and involved more than 10 people. PERU LNG reports that this stoppage was due to the delay in the delivery of the technical report from the Ayacucho School of Engineers regarding alleged damages in Accopampa (Kp 113 to Kp 114, Vinchos).

<b>Main cause of stoppage</b>	<b>Number of stoppages</b>
Construction activities	3
Land & Easement	2

According to agreements previously reached, the alleged damages between Kp 113 and Kp 114 were to be verified by the Ayacucho Professional School of Engineers, and those between Kp 114 and Kp 135 were to be verified by a committee appointed by the Community. PERU LNG reports that at the end of Q2 the report from the Ayacucho School of Engineers was delivered recommending a new evaluation and considering that all the repair works in the area had been concluded. The report from the committee of the Community is pending.

PERU LNG reports that all reinstatement and biorestitution works in this area were completed by the Pipeline Contractor at the end of March. Only one minor segment of about 250 meters remains to be restored in Accopampa (between Kp 113+500 and 114+000). PERU LNG informed that this work will be completed by the pipeline Maintenance Contractor once a final agreement with the Community is reached.

During the September Mission, PERU LNG reported that from July to September of 2010 there was one stoppage. It was provoked by requests for local hiring and donations in the community of Anco (Oscoccocha annex). Local people stopped the work of the contractor in charge of pipeline maintenance (COGA).

The table below shows the tendencies on stoppages during the last 4 reporting periods.

Quarter	Stoppages
Q4 2009	55
Q1 2010	18
Q2 2010	5
July and August 2010	1

PERU LNG affirms that it has enough Community Affairs personnel to receive grievances or concerns. Additionally, the monitors of PMSAP are also another source of information regarding environmental and social concerns. Grievances and complaints during the operation phase will be channeled through PERU LNG Community Affairs staff. The maintenance contractor does not have its own Community Affairs personnel. PERU LNG Community Affairs staff will accompany the contractor at least the first time he enters a community.

During this mission the IESM Team did not received additional information regarding the development of a data base or other actions related to High Consequence Areas.

### *Scope of the IESM Team's Review*

During the September Mission, the IESM Team attended a presentation of the program's status. The information given in the presentation was already reported in the previous section.

### *Compliance Assessment*

The Stakeholder Engagement Management Plan was found in compliance with the Project's social commitments.

### *Results Assessment*

PERU LNG's Community Affairs staff continues to manage interactions with local communities in a transparent and diligent way.

### *Conclusions and Recommendations*

The IESM team suggests that the Community Affairs team should maintain a strong presence along the RoW to continue addressing any concern that stakeholders might have regarding the operation phase, particularly during the period when the new maintenance contractor is becoming familiar to the communities.

## 7.7 Local Hiring and Purchasing Management Plan

### *Progress Reported by PERU LNG*

According to PERU LNG's Q2 2010 Report, the final decommissioning activities were conducted in early April, and thus local hiring and local purchasing figures dropped in comparison with previous quarters. During the reporting period, the total number of workers of the pipeline was 77, all of them Peruvians from the Ayacucho region. PERU LNG reports that no social issues, dissatisfaction or conflicts regarding the local workforce or retrenchment were recorded.

PERU LNG Q2 report further states that no local purchasing figures were recorded this quarter along the Pipeline RoW.

### *Scope of the IESM Team's Review*

During the September Mission the IESM team did not receive further information on these programs.

### *Compliance Assessment*

The program is compliant with EIA requirements and with PERU LNG social commitments.

### *Results Assessment*

Currently, as the construction work has been completed, there is not a significant number of local people working for the project. Local purchasing has also ended with the end of the construction process.

The communities are conscious that work opportunities associated with the construction process are over.

### *Conclusions and Recommendations*

None at this time. This program was executed in compliance with applicable social commitments.

## 7.8 Livelihood Improvement Program

### *Progress Reported by PERU LNG*

According to PERU LNG's report, during Q2 2010 Atinchik, the company in charge of implementing the Livelihood Restoration Improvement Program carried out the following main activities regarding its first component (the empowerment of the most vulnerable families of PERU LNG's direct area of influence to efficiently manage their financial resources and improve their wellbeing):

- 160 women organized in 18 groups from 5 communities participated in training sessions. All groups completed training on "Personal Empowerment" and on "Construction of a Family Vision" (6 sessions) and were receiving training on "Management of Household Economy" and on "Management of Family Businesses".
- 186 children have received 10 training sessions. The training topics included "Biodiversity Guardians", "Knowing my Community" and "Personal Savings in a Community Bank".

The following activities were carried out in the reporting period regarding the second component (to have the communities design their own strategic plans and manage their local development projects):

- The 13 ALFAs (local facilitator apprentices) attended a two-day workshop in Huamanga. The first workshop included training in project financing organization through “*Nucleos Ejecutores*” and “*Presupuestos Participativos*” (two governmental schemes for project financing); and methodologies for experiential learning. The second workshop was related to the preparation of community projects.
- 50 workshops on “Productive Project Management” were held with the participation of 892 attendees.
- 42 workshops on “Projects to Strengthen the Organization of the Community” were carried out in the communities with the participation of 387 attendees.

#### *Scope of the IESM Team’s Review*

During the mission the IESM Team did not receive further information from PERU LNG regarding this program and no specific inspections or activities were scheduled.

#### *Compliance Assessment*

The program is compliant with EIA requirements and with PERU LNG social commitments.

#### *Results Assessment*

The number of community projects presented to funding agencies shows a promising positive impact of the program in developing the skills for the communities to seek external funding for their projects. However, at the time of the September Mission the contract with the implementing partner (ATINCHIK) had been concluded and there was no procedure in place to follow-up on processing of these projects by the funding agencies.

#### *Conclusions and Recommendations*

Though the Program has been successful in improving livelihood conditions, much of this result is yet to be realized and will depend on successful implementation of the projects for which funding has been requested. It is critical that PERU LNG develop a system of follow up on the projects that the communities are presenting to funding agencies in order to maximize their success in obtaining funding.

PERU LNG should develop a document which explains how the results of the program are related to the uses of the individual and communal payments and/or compensations given due to the project construction.

Success of the Livelihood Improvement Program is measured in terms of enhancement of living conditions and this will partly depend on the amount of funding that the communities manage to obtain from third parties. Hence, it is in the best interest of PERU LNG to monitor these processes and document the outcome in order to evaluate the results of the program.

### 7.9 Pipeline Compensation Management Plan

#### *Progress Reported by PERU LNG*

PERU LNG reported that at end of Q2 2010 the pending payments to local communities and individual beneficiaries regarding the RoW were as summarized in the **Table 7.10-1**.

**Table 7.9-1  
Pipeline Compensation Progress and Status of Pending Payments – End Q2 2010**

Description	Total	Negotiated contracts	Pending First Payment	Pending Second Payment	Pending Third Payment
<b>OWNERS</b>					
Number of contracts executed with the 35 communities along the Pipeline RoW	73	73	0	0	9
Number of contracts executed with Individual and Group of Owners	350	350	0	0	2
Total number of contracts with Owners	423	423	0	0	11
<b>POSSESSORS</b>					
Total number of contracts with possessors	2,081	2,081	0	1	126
<b>TOTAL AGREEMENTS</b>	<b>2,504</b>	<b>2,504</b>	<b>0</b>	<b>1</b>	<b>137</b>

During Q2 2010, 60 3<sup>rd</sup> payments to possessors were processed. One (01) third payment to communities was processed, and at the end of Q2 2010 9 third payments to communities were still pending. Two (02) third payments to individuals and groups of owners were also processed.

#### *Scope of the IESM Team’s Review*

During the Mission, the IESM Team held a meeting with PERU LNG’s pipeline compensation management team. The following status (**Table 7.10-2**) on pending payments was presented (as of beginning of September, 2010), where the main aspect to highlight is that an additional seven (07) third payments to communities were made, with only two (02) communities pending.



**Table 7.9-2  
Pipeline Compensation Progress and Status of Pending Payments – May 15 2010**

Description	Total	Negotiated contracts	Pending First Payment	Pending Second Payment	Pending Third Payment
<b>OWNERS</b>					
Number of contracts executed with the 35 communities along the Pipeline RoW	73	73	0	0	2
Number of contracts executed with Individual and Group of Owners	350	350	0	0	0
Total number of contracts with Owners	423	423	0	0	2
<b>POSSESSORS</b>					
Total number of contracts with possessors	2,081	2,081	0	1	117
<b>TOTAL AGREEMENTS</b>	<b>2,504</b>	<b>2,504</b>	<b>0</b>	<b>1</b>	<b>119</b>

As shown above, after the end of Q2 2010, 18 extra third payments were made (pending 3<sup>rd</sup> payments down to 119 from the previous 137). These 119 pending 3<sup>rd</sup> payments are distributed by community as follows in **Table 7.10-3**.

**Table 7.9-3  
Pending 3<sup>rd</sup> payments**

Community	Number	Reason
Vinchos	110	Payments depending on negotiation regarding claims for additional compensation.
Moyobamba	1	
Other communities	8	Difficulty in locating the owner or possessor.

One situation that stands out as unusual is the fact that in the case of only one (01) possessor, the 2<sup>nd</sup> payment is still pending. It was explained that the case refers to an area in the community of Sallalli and that the affected party has not been located in spite of repeated attempts.

The third payments associated with the community of Vinchos and its possessors depend on the conclusion on the negotiations for alleged environmental damages due to the construction process. Once the negotiation with the community is closed, individual possessors will follow on expediently. As was mentioned in the Stakeholder Engagement Management Plan, these negotiations now depend on new assessments as the report of the community evaluation and the report of the Ayacucho School of Engineers are not conclusive.

PERU LNG informed that it has commenced legal procedures in order to put in escrow the payments due to 30 possessors. This procedure is followed when the payment is equal or more than 2,000 soles.

During the mission PERU LNG informed that negotiations are ongoing regarding permanent accesses (11) and land for antennas. These areas were already negotiated by TECHINT for the construction phase. In case of some antennas, areas of approximately 100 m<sup>2</sup>, owners are proposing a year basis renegotiation, similar to an annual rent.

All owners and possessors have been informed that the construction phase has finished and that the RoW is 20 m wide and not 25 m as during the construction period.

The firm in charge of negotiations has closed its office in Ayacucho. Hence PERU LNG will manage directly all pending Land Compensation issues.

PERU LNG is keeping digital and physical files of all the negotiation processes at a specialized facility. These files contain: Invitation letters, minutes (agreement and non-agreements), the two appraisals, contracts and public deeds, amendments, construction and preparation drawings and description of affected land, payments' receipts, Public Registry's records, delivery of contract, notary letters informing the end of the construction, pictures of different negotiation moments.

#### *Compliance Assessment*

The Pipeline Compensation Management Plan is compliant with EIA requirements.

As discussed in the IESM Report of the previous mission, some form of monitoring of community perceptions with respect to the compensation process should have taken place. Whereas strictly speaking this monitoring was not conducted, the IESM Team understands that information regarding community perceptions has been obtained by PERU LNG through various other means.

#### *Results Assessment*

The Pipeline Compensation Management Plan is nearing completion and, with the exception of pending negotiations described above, can be considered to have fairly and equitably compensated for land and assets. However, the plan's final report is still pending and an additional report will be due in three years to verify if the living conditions of affected persons have been fully and sustainably restored or improved. The plan's final evaluation will only be possible at that time.

#### *Conclusions and Recommendations*

It is important to be proactive in order to assure that all payments are concluded within the three year timeframe within which the damages to crops due to the construction process were calculated.

## **8.0**

### **Additionality Programs**

PERU LNG is implementing several Social Investment projects associated to the pipeline. These will be integrated into a Community Investment Framework that is still under development. Progress reported by PERU LNG on individual additionality initiatives in Q2 2010 is summarized below.

#### *Short Term Initiatives Program*

According to the Q2 2010 Report, the following activities were implemented during the reporting period:

#### **Yachachik Mamakuna Nutrition Project**

It contributes to the healthy growth and development of children between 0 to 5 years old in some communities in Huancavelica training mothers in the prevention of anemia and improving the quality of diet. During Q2 2010, 14 voluntary promoter teams have been set up with the participation of 75 promoters. They attended 3 training workshops and received a health and nutrition kit. A first round of workshops on good health practices was completed with the participation of 225 mothers.

#### **Improved Stoves**

PERU LNG with the support of GTZ (German Technical Cooperation) is implementing an improved stove program in selected localities in Ayacucho. These stoves direct exhaust smoke and particulates out of the house and have higher fuel efficiency. During Q2 2010 102 improved stoves were built in the Patibamba community and 3 demonstrative improved stoves were installed in Uras, Alpacorral, and Patibamba communities.

#### **Veterinary Campaigns**

The objective of this program, implemented by the San Cristobal National University of Huamanga, is reinforcing the sanitary management of livestock in some communities located in the project's direct area of influence. Seven campaigns were carried out during Q2 2010 with the participation 83 community members. A total of 19,428 animals owned by 233 different farmers were vaccinated.

#### **Medium to Long Term Initiatives**

##### PERU LNG Agricultural Project - *Allin Minkay*

According to Q2 2010 Report, the following are the results of the four components of the program:

- Agricultural Enhancement

This component intends to introduce 8 low cost agricultural technologies at a household level to improve the family's standards of living and income. The beneficiaries are 8 to 10 families in each of 50 communities within the area of direct influence of PERU LNG. The technologies are: Sprinkler and Drip Irrigation Systems, Fixed Agriculture Plots, Improved Pastures, Mini Plots for Grains and Tubers, Agro Forestry, Organic Fertilizers, Raising of Hens, Raising of Guinea Pigs.

The Amazon-Andean Center for Development (CAAD by its Spanish acronym) has been selected as the implementing partner for this component that is to be implemented within a one year timeframe.

According to the Q2 2010 Report, during the reporting period 70% progress was achieved in the implementation of sprinklers and drip irrigation systems. Vegetable crops were planted in several land plots (120 m<sup>2</sup> per plot) as part of the implementation of the fixed agricultural plots technology. The households that completed the installation of irrigation systems commenced the production of organic fertilizers.

- Camelid Related Infrastructure Program

This component aims to provide technical assistance to breeders of alpacas as well as the management of vicuñas via infrastructure, equipment, and training enhancement. The alpaca production enhancement will include the construction of alpaca sheds and training on alpaca reproduction activities. The vicuñas management enhancement will include the implementation of vicuña shearing modules and training on vicuña fiber de-hairing and cleaning. Demands to act upon illegal hunting have been placed, but the Program cannot act on this issue.

The beneficiaries are located in the following communities of Huancavelica: Pilpichaca, San Felipe, Chaupi, Ingahuasi, Cacuya, Pichccahuasi, Ayaví, Huaytará, Santa Rosa de Tambo.

As well as in the following communities of Ayacucho: Ccarhuacpampa, Churia, Rosaspampa. Minas Corral. Huayraccasa, Cayramayo.

According to the Q2 2010 Report, during Q2 the implementing partner (CONOPA) carried out presentations in the targeted communities to explain the objectives and scope of the project.

During the September Mission the IESM Team attended a presentation and demonstration of the use of equipment and the training in fiber de-hairing and cleaning in the community of Huaytará. The community members expressed their satisfaction with the equipment they are receiving and the training that will allow them to sell their fibers with better prices and generate work positions for community members.

- Rural Micro Finance Program

The objective of this component is to implement a program for the provision of micro-financing services for individual community members through the establishment of a total of 30 Community Banks and 10 Rural Enterprises in the following 15 communities: Huaytará, Ayaví, Tambo, Pillpichaca, Lillinta, and Ingahuasi (Huancavelica) as well as Tambocucho, Sallali, Urpaypampa, San José de Mayobamba, Vinchos, Occollo, Azabrán, Paccha and Rosaspampa (Ayacucho).

The financial services include credit, savings and life insurance. FINCA Perú, with a long experience of organizing women's communal banks, has been selected as the implementing partner for this component.

According to the Q2 2010 Report, during Q2 21 Rural Community Banks were implemented in the communities with a total of 238 beneficiaries (mainly women). They have received loans ranging from S/. 600 to S/. 3,000 to finance micro-businesses. The total loans sum up S/. 105,100. This amount will be repaid over a 5.5 months term. 234 members also acquired life insurance. Cumulative savings by the end of the quarter reached S/. 40,434. The evaluation of additional beneficiaries and rural business candidates continued until the end of July.

During the mission the IESM Team had the opportunity to attend a meeting of one of the five Community Banks that were implemented in the community of Huaytará. The members of the bank used their loans for improving businesses such as commercialization of cheese, candies, snacks or fruits, as well as avocado and vegetable production. Most of them also have savings in the bank. During the meeting the members of the bank proposed to establish a weekly fair in Huaytará that would allow them to improve their access to buyers. The members of the bank expressed their satisfaction with their participation in the bank and that it is running smoothly with minimal difficulties.

- Irrigation Infrastructure Program

This component plans to construct small to medium irrigation and potable water systems in some communities located in Ayacucho and Huancavelica. It aims to improve the efficiency of water use by these communities and increase cultivation areas as well as the access to potable water.

This component is being implemented by the Workshop for Andean Promotion (TADEPA by its acronym in Spanish).

According to the Q2 2010 Report, during Q2 the potable water project in Huancacasa was completed. It consist of 480 meters of primary pipe networks, 926.5 meters of secondary pipe networks, and the connection of 22 households to the potable water grid, benefitting 22 families. Project beneficiaries received technical assistance and training in the establishment and management of sanitation services and maintenance techniques. The implementation of another irrigation project in Pilpichaca community started during Q2. The project will irrigate 100 Ha of natural and cultivated pastures, benefitting 105 households and families. The Huactascocha irrigation project was under implementation during Q2.

During the September Mission, the IESM Team visited the already concluded Huactascocha irrigation project. The authorities of Huactascocha and Ayavi expressed their recognition to PERU LNG for this contribution in the improvement in the agricultural activities of 73 families. The system has optimized the use of available water and allows more families to irrigate their lands with a higher frequency due to implementation of irrigation by sprinklers in Sector 2 (irrigation has passed from 1 person per day every 60 days, to 4 persons per day every 30 days).

- Enhancing Royalty Investment

Enhancing Royalty Investment is a PERU LNG initiative in cooperation with the International Finance Corporation (IFC), and is the result of a situational analysis of the provincial governments in La Mar, Huamanga, and Huaytará. This institutional strengthening project seeks to improve management capabilities in implementing public investment projects.

The provincial municipalities prioritized different projects:

- Huamanga: Public investment program on food security;
- La Mar: Installation of potable water and sanitation systems in eight communities;
- Huaytará: Building of a waste management.

According to the Q2 2010 Report, during the period technical assistance continued to be provided to Provincial Governments in Huamanga, La Mar, and Huaytará in order to expedite the investment management process within the framework of the public investment system regulations.

## **9.0**

### **Project KPI Analysis**

#### 9.1 Environmental Indicators

Environmental KPI's applicable to the Pipeline as reported by PERU LNG in its Q2 2010 Report have been compliant with performance targets.

#### 9.2 Social Indicators

The performance target for responding to complaints regarding the land compensation process (SPL3) is under 90%. This is explained by the low number of complaints (2), one of which was not responded to during Q2. The same occurred with the performance target relative to responding grievances and complaints (SPL4). From 14 grievances and complaints received only 9 were responded during Q2.

#### 9.3 Health and Safety Indicators

Pipeline health and safety performance continued to be outstanding during Q2 2010, with the Lost Time Incident Rate well below the Project's KPI. In effect, the cumulative LTIR (inception to date) was 0.07 at end of Q2, as compared to a KPI of 0.50.

It will be necessary to consolidate health and safety statistics and follow on H&S KPIs with respect to worked hours during the operations phase and not only from inception to date.

## **10.0**

### **Consolidated Suggestions and Recommendations**

It should be mentioned that, in general, the IESM Team encountered a very high standard of quality in the implementation of closure and reinstatement and biorestitution works in the RoW. In many of the visited areas, the RoW was almost unnoticeable. In others, continued and frequent monitoring will be necessary until the bio-restoration process fully establishes itself.

Recommendations set forth herein are classified into six main categories as follows:

Recommendation Type	Subject
Type 1	Recommendations affecting PERU LNG’s E&S Assurance Procedures relative to operation
Type 2	Recommendations requiring PERU LNG to request corrective action from the maintenance contractor - COGA
Type 3	Recommendations relative to ongoing E&S Programs
Type 4	Suggestions relative to Additionality Projects
Type 5	Requests for inclusion of complementary information in PERU LNG’s Environmental, Social and Health and Safety Quarterly Reports
Type 6	Recommendations for future action in view of perceived environmental and social upcoming risks

New recommendations resulting from the September IESM Mission are presented below, organized according to the six categories specified above. A Recommendation Tracking Table with past pending recommendations is presented in **Annex 02**.

**Type 1 - Recommendations Affecting PERU LNG ‘s E&S Assurance Procedures Relative to Operations**

- The nighttime measurements are significantly above project standards and further analysis will be necessary to verify if this is the result of project-related noise or other background community noise. This should involve complementary monitoring and should contemplate a wider array of locations at Nueva Ccolpas as well as some indoor measurements. Consultation with community leaders on noise-related discomfort would also be desirable.

**Type 2 - Recommendations Requiring PERU LNG to Request Corrective Action from the Maintenance Contractor - COGA**

- At both La Bolivar and Santa Beatriz camps, some minor oil stains on the soil were observed. The applicable ESHS procedure should be implemented
- Adjust coordination between PERU LNG Community Affairs staff and COGA in order to keep improving grievance management.

**Type 3 - Recommendations Relative to Ongoing E&S Programs**

- Justification for not including seabirds in the BMAP is necessary as this was in the original Program’s commitment.

- The SIRM's website should have an INTERNET address that can be readily accessible by the broader public.
- PERU LNG should make explicit the logic through which 37 community monitors from over 50 communities will be chosen for participation in the PMSAP during the operation phase.
- Given that the PMSAP will be coordinated in the future by the Environmental area of PERU LNG, there should be adequate coordination with the social areas in order to keep improving the social aspects of monitoring.
- The IESM Team recommends that the Community Affairs team maintain a strong presence along the RoW to continue addressing any concerns that stakeholders might have regarding the operation phase, particularly in the phase when the new contractor for the pipeline maintenance becomes familiar to the local communities.
- PERU LNG should act to assure that pending compensation payments are concluded within the three year timeframe within which the damages to crops due to the construction process were calculated.

#### **Type 4 – Suggestions Relative to Additionality Projects**

- In the Livelihood Improvement Program, it is important that PERU LNG develop a system of follow up of the projects that the communities are presenting to funding agencies in order to maximize their success in obtaining funding.
- PERU LNG should develop a document which explains how the results of the Livelihood Improvement Program are related to the uses of the individual and communal payments and/or compensations given due to the project construction.

#### **Type 5 - Requests for Inclusion of Complementary Information in PERU LNG's Environmental, Social and Health and Safety Quarterly Reports**

- PERU LNG should submit the proposed structure and content of its Quarterly ESHS Compliance Reports for the operations phase. This should include evidence of proper implementation of plans and procedures in the ESHS Management System for operations as recently approved by Lenders, and should be submitted before the next Quarterly Report is prepared.
- It is necessary to consolidate health and safety statistics and follow on H&S KPIs with respect to worked hours during the operations phase and not only from inception to date.



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## ANNEXES

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**ANNEX 01**  
**List of Documents Reviewed**

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## **ANNEX 01**

### **List of Documents Reviewed – PERU LNG – Pipeline**

Q3 2010 PERU LNG ESHS Quarterly Report  
PERU LNG ESHS Monthly Report – April 2010  
PERU LNG ESHS Monthly Report – May 2010  
PERU LNG ESHS Monthly Report – June 2010  
Monthly Report - OSINERGMIN - June 2010  
Monthly Report - OSINERGMIN - May 2010  
Pipeline Operations Contingency Plan  
Pipeline Environmental Presentation  
Pipeline Community Relations Program Presentation  
Livelihood Improvement Program Presentation  
Presentation on Q3 2010 Monitoring and Biodiversity Conservation  
Presentation on Environmental, Health and Safety Performance  
Presentation on Pipeline Maintenance by COGA, the Contractor Company



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**ANNEX 02**  
**Recommendation Tracking Table - PERU LNG Pipeline**  
**September 2010**

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**ANNEX 02**

**RECOMMENDATION TRACKING TABLE - PERU LNG PIPELINE - SEPTEMBER 2010**

Type 1 – Recommendations affecting PERU LNG’s E&S Assurance Procedures					
Date	Recommendations	Subject	Risks	Corrective Action Reported	Current Status
07.10	On the Pipeline Punch List (for use by the maintenance contractor – COGA), activities are classified by priority, but the criteria used for this classification are not included. It is recommended that the criteria to be used be included, considering aspects of duct integrity, potential for social conflict, and erosion and security risks.	Pipeline maintenance and erosion control procedures	RoW stability Maintenance costs	<p>In its Q2-2010 Report, PERU LNG informed:</p> <ul style="list-style-type: none"> <li>▪ The Pipeline Punch List submitted to Lenders as part of the requested documentation from May’s IESM mission consist mainly of information collected at the end of the construction period.</li> <li>▪ The Punch List will be improved and updated based on the results of the joint inspections to the RoW and AGI that are being conducted between PERU LNG and the Maintenance Contractor.</li> <li>▪ List will include findings considering different aspects such as: pipeline integrity, potential for social conflicts, erosion control, security risks, etc.</li> <li>▪ Items will be classified by priorities in order to adequately define the activities (and priorities) to be performed by the Pipeline Maintenance Contractor.</li> </ul> <p>During the September Mission, the following update was provided:</p> <ul style="list-style-type: none"> <li>▪ Criteria of priorities for maintenance contractor activities has been included in Patrolling Survey Reports.</li> <li>▪ Issues involving waste presence or generation, hydrocarbon or chemical management are rated on the Pollution Prevention column.</li> <li>▪ Issues involving erosion, revegetation and pipeline integrity are rated on the Erosion Control/Reinstatement column.</li> <li>▪ Issues involving community interests are rated on the Social Issues column.</li> <li>▪ Issues shall be qualified as 0 (if not applicable), 1 (if action required to be taken in mid-term period) and 2, (if action is required in a short term period).</li> </ul> <p>Examples of the criteria were presented.</p>	The IESM Team considers that adequate adjustments of the Punch List procedure have been introduced. However, will want to verify the adjusted procedure in use before proceeding to close this recommendation.

Type 2 - Recommendations Requiring PERU LNG to Request Corrective Action from the Maintenance Contractor – COGA					
Date	Recommendations	Subject	Risks	Corrective Action Reported	Current Status
07.10	Along the reinstated Cochas access, additional slope breakers should be implemented near the Alto Mayo side.	Erosion Control Bio-restoration	RoW stability Maintenance Costs	<p>From the Q2-2010 Report:</p> <ul style="list-style-type: none"> <li>Additional slope breakers will be implemented during regular maintenance activities prior to the next rainy season.</li> </ul> <p>From the information provided in the IESM Mission (See TAB 05-Ppt Env Pipeline from September 2010 Mission)</p> <ul style="list-style-type: none"> <li>Erosion control measures are being gathered during Patrolling Surveys walkthroughs. All findings will be implemented by Contractor ROW maintenance crews.</li> </ul> <p>This item can be verified in the next IESM Mission.</p>	Implementation of corrective action is still pending. The IESM Team will require evidence of completion of this work if physical inspection of this location proves unfeasible during the next mission.

Type 3 - Recommendations Relative to Ongoing E&S Programs					
Date	Recommendations	Subject	Risks	Corrective Action Reported	Current Status
07.09	Define specific KPIs to be adopted for performance assessment of the Livelihood Reestablishment Assistance Action Plan to be performed by Atinchik.	Livelihood Reestablishment Assistance Action Plan	Risk of unwarranted community claims	PERU LNG has responded it has developed specific progress indicators for this program and has been reporting on them in the Quarterly Reports.	The IESM Team considers progress indicators are only indicating status of program implementation but do not reflect performance. The progress indicators do not provide grounds for assessing the results of the program or its positive impacts on the communities in which it was implemented.
07.10	The Community Affairs team should maintain a strong presence along the RoW during initial operation months to continue addressing any concern that stakeholders might have regarding the pipeline's operation.	Community relations	Uninformed grievances Community unrest Reputational risk	<p>With respect to this recommendation, PERU LNG has reported:</p> <ul style="list-style-type: none"> <li>PERU LNG's Community Affairs team maintains an important presence throughout the direct area of influence of the pipeline.</li> <li>Community Affairs representatives are now organized in three working areas distributed to adequately cover the entire RoW. (Ayacucho, Huaytará, and Coast.)</li> </ul> <p>Furthermore, the Company points out that the ESHS-MS Roles and Responsibilities Plan includes organization charts that indicate that the Community Affairs team will maintain a strong presence along the RoW.</p>	<p>The IESM Team understands that the sufficiency of the Community Relations team can only be confirmed on the basis of experience. Hence, it will verify this during the next mission.</p> <p>It is further pointed out that all information relative to action upon IESM Team recommendations that PERU LNG considers relevant should be in the Quarterly ESHS Reports.</p>

Type 3 - Recommendations Relative to Ongoing E&S Programs					
Date	Recommendations	Subject	Risks	Corrective Action Reported	Current Status
				<p>Additionally, PERU LNG has indicated that as per the Common Terms Agreement CTA - 5.17 (j):</p> <ul style="list-style-type: none"> <li>▪ A letter certifying that PERU LNG has allocated the necessary financial resources and appointed the required personnel to fully and effectively implement and comply in all material respects with all E&amp;S requirements is submitted every year in October.</li> </ul> <p>The latest communication in this regard was submitted to the Intercreditor Agent (ICA) on October 25, 2010 and covers the 2011 period (PLNG-SG-215-10).</p>	
07.10	<p>The process of closing the Livelihood Improvement Program should be planned and coordinated, when possible, with the other social programs that PERU LNG is funding. Furthermore, it is recommended that PERU LNG develop a system to follow-up on projects to maximize the success of communities in obtaining funding.</p>	<p>Livelihood Reestablishment Assistance Action Plan</p>	<p>Low success rate of Livelihood Restoration Projects</p>	<p>PERU LNG has indicated that Social Investment Programs are not Project or CTA Commitments, nor EIA requirements but additionality. As such, this should be a suggestion only. Furthermore, the Company argues that It has implemented the Livelihood Improvement Program according to the agreed TORs and commitments.</p> <p>Additional comments received from the Company in this respect:</p> <ul style="list-style-type: none"> <li>▪ PLNG seeks to ensure a consistent and coordinated approach to stakeholders' engagement throughout the areas of influence, as defined in the ESIA's.</li> <li>▪ The Stakeholder Engagement Plan submitted to lenders and JGP includes a schedule of planned visits to vulnerable communities and to communities where investment initiatives are being carried out.</li> <li>▪ According to this schedule: "Communities where social investment programs are being implemented and communities classified as highly vulnerable" shall be visited "twice a month".</li> </ul> <p>In these visits, CROs will: i) provide timely information and updates regarding Company activities; ii) provide opportunities to stakeholders to voice their opinions and concerns in a way which is most appropriate to their circumstances; and iii) provide an opportunity for feedback from communities regarding any changes during operations.</p>	<p>The IESM Team agrees to classify this is a suggestion ("Type 4 in the recommendation categorization table in Section 10.0).</p> <p>The IESM Team insists that this is a highly pertinent suggestion that requires very marginal effort from PERU LNG and that can contribute to significantly enhancing the final outcome of the Livelihood Improvement Program.</p> <p>Activities under the Stakeholder Engagement Plan, as described in this table, do not constitute follow-up of projects for which communities have requested funding from government entities.</p>

<b>Type 4 – Suggestion Relative to Additionality Projects</b>					
<b>Date</b>	<b>Recommendations</b>	<b>Subject</b>	<b>Risks</b>	<b>Corrective Action Reported</b>	<b>Current Status</b>
<b>07.10</b>	A clear strategy should be in place for cases of closure of Social Responsibility Projects, as failure of some initiatives to sustain themselves over time may result in negative impacts that outweigh any initial benefits. This strategy should certainly include monitoring and follow-up	Integrated Agricultural Projects (Allin Minkay)	Risk of negative impacts in the event implemented projects fail to sustain themselves	None	Action on this recommendation has not yet been reported.

<b>Type 6 - Recommendations for Future Action in View of Perceived Environmental and Social Upcoming Risks</b>					
<b>Date</b>	<b>Recommendations</b>	<b>Subject</b>	<b>Risks</b>	<b>Corrective Action Reported</b>	<b>Current Status</b>
<b>03.10</b>	Though it was not inspected, it was reported that an access road built for the Project near Oscococha, will not be reinstated and will remain operational after construction at the local communities' request. This access is 4.8 km long and will serve the community of Anchiway and Chiquintirca. Currently, topsoil is piled along the alignment, with provisional fences to contain runoff. It will be essential that this road be delivered complete to the local communities. This means that the provisional fences must be removed and the top soil piles need to be spread and/or stabilized as appropriate. Proper road drainage needs to be completed as well, and any area lacking vegetation cover should be bio-restored. Only then should the access be delivered to the communities that will from then on be responsible for its maintenance. The IESM Team identifies the Oscococha access as a significant potential source of reputational risk.	Reinstatement and Biorestation	Property Damage Erosion and other Environmental Impacts Indemnification Claims Reputational Risks	PERU LNG has since reported that it will be implementing reinstatement and bio-restoration measures before delivering the access road to the community and that it will be submitting an Environmental Management Plan to DGAAE for approval. As of the September Mission this EMP had not yet been submitted.	The IESM Team will want to review the EMP once it is ready and will close this recommendation once all geotechnical, drainage, reinstatement and/or bio-restoration works in the EMP have been implemented and it has a chance to inspect them.



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**ANNEX 03**  
**Photographic Records of Mission Observations**

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	<p><b>Locality:</b> Restored Area in La Bolívar camp</p> <p><b>Comment:</b> Completed bio-restoration works at former campsite</p>
	<p><b>Locality:</b> Valve 10</p> <p><b>Comment:</b> Valve and respective pipeline connection</p>
	<p><b>Locality:</b> RoW in Kp 306</p> <p><b>Comment:</b> Crossing area on mining access road at the foot of the narrow ridges slope. The metal warning sign for the pipeline is missing because it was stolen.</p>
	<p><b>Locality:</b> La Bolívar Camp</p> <p><b>Comment:</b> Site was cleared and reinstated and an unusual oil spill was found in the area. During the Mission, such material was removed and replaced with clean soil</p>

	<p><b>Locality:</b> Santa Beatriz Camp</p> <p><b>Comment:</b> Surface facilities being removed from campsite</p>
	<p><b>Locality:</b> Santa Beatriz Camp</p> <p><b>Comment:</b> Surface facilities being removed from campsite. Workers are wearing all necessary safety equipment</p>
	<p><b>Locality:</b> Santa Beatriz Camp</p> <p><b>Comment:</b> Oil stain on soil where the geomembrane of the used grease storage tank was placed</p>
	<p><b>Locality:</b> Santa Beatriz Camp</p> <p><b>Comment:</b> Removal of concrete blocks and disposal of material for later removal and transportation</p>

PHOTOGRAPHIC RECORD OF AUDITS

	<p><b>Locality:</b> Santa Beatriz Camp</p>
	<p><b>Comment:</b> Effluent treatment area which was still active until campsite's complete decommissioning</p>
	<p><b>Locality:</b> Santa Beatriz Camp</p>
	<p><b>Comment:</b> Decommissioning activities observed during Mission</p>
	<p><b>Locality:</b> Santa Beatriz Camp</p>
	<p><b>Comment:</b> Remaining nursery Plants from former campsite nursery which was utilized during the pipeline construction phase</p>
	<p><b>Locality:</b> Valve 11</p>
	<p><b>Comment:</b> Facilities located at the dunes region in Chinchá</p>



**Locality:** RoW in Quebrada San Juan region

**Comment:** No erosion processes were observed



**Locality:** Río Seco crossing in the narrow ridges region

**Comment:** Erosion control works can be observed on the slopes



**Locality:** RoW detail

**Comment:** RoW stands out amidst different soil colors



**Locality:** RoW in the narrow ridges region on the way to Kp 280

**Comment:** Runoff control berms in case of rainfall. Construction debris containment barriers were also observed during pipeline construction in order to avoid side cast



**Locality:** Quebrada San Juan region

**Comment:** RoW is parallel to riverbed. Water and mudslide occur in the “*quebradas secas*” within 10 to 50-year cycles



**Locality:** RoW in the narrow ridges region

**Comment:** Erosion control works were observed



**Locality:** RoW in the *Tilandsias* area, within the boundary of the desert region

**Comment:** RoW is shown crossing a *Tilandsias* area



**Locality:** RoW in Valve 10 region

**Comment:** RoW is shown approaching the valve



**Locality:** Santa Beatriz Camp

**Comment:** Final camp facilities being disassembled



**Locality:** Santa Beatriz Camp region

**Comment:** RoW crossing agricultural areas

PHOTOGRAPHIC RECORD OF AUDITS



**Locality:** Santa Beatriz Camp region

**Comment:** RoW crossing agricultural areas



**Locality:** Valve 12

**Comment:** RoW reaching Valve 12, crossing agricultural areas



**Locality:** Chincha Region

**Comment:** RoW in High Consequence areas, in the Chincha region, with occurrence of urbanization processes on both sides of the pipeline



**Locality:** Huaytará Region

**Comment:** RoW is shown in high declivity areas



**Locality:** Kp 280 region

**Comment:** Erosion control works and river crossing are shown



**Locality:** La Bolívar Camp region

**Comment:** Camp area reinstatement works are shown



**Locality:** Kp 320 region

**Comment:** RoW erosion control works



**Locality:** Topara Region

**Comment:** RoW and Valve 13 are shown



**Locality:** Quebrada Topara Region

**Comment:** River crossing works are shown



**Locality:** Coastal Region

**Comment:** RoW crossing agricultural areas