



REPORT OF THE:

EXTERNAL COMPLIANCE MONITORING GROUP

RAJASTHAN ON-90/1 BLOCK DEVELOPMENT AND BARMER TO SALAYA PIPELINE PROJECTS, INDIA

7th Site visit: January 2011

India



Prepared for

International Finance Corporation

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Prepared by: D'Appolonia S.p.A.
Via San Nazaro, 19
16145 Genova, Italia
www.dappolonia.it

Team Members:

Giovanni Battista De Franchi	Project Manager, Environmental Engineering and Health and Safety Specialist (present during the visit)
Stefano Robaudo	Team Leader, Environmental Science Specialist (present during the visit)
Andrea Gaviano	Environmental Specialist
Anna Martella	Social and Resettlement Specialist (present during the visit)
Roberto Carpaneto	Senior Reviewer, Pipeline Engineer, Health and Safety Specialist, Oil and Gas Specialist

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ANNEX A: TRIP SUMMARY 7TH MISSION, JANUARY 2011

FREQUENTLY USED ACRONYMS

AGI: Above Ground Installation
AP: Action Plan
BTG: Business Transformation Group
CDF: Community Development Framework
CEIL: Cairn Energy India Pty Limited
CRMS: Corporate Responsibility Management System
CSR: Corporate Social Responsibility
EC: Enterprise Center
ECMG: External Compliance Monitoring Group
EHS: Environmental Health and Safety
EHSS-MS: Environmental, Health, Safety and Social Management System
ESMP: Environment and Social Management Plans
EMP: Environmental Management Plan
ESIA: Environmental and Social Impact Assessment
IFC: International Finance Corporation
IOCL: Indian Oil Corporation Ltd
LAO: Land Acquisition Officer
LACP: Land Acquisition and Compensation Plan
L&T: Larsen and Toubro
MPT: Mangala Process Terminal
NGO: Non Governmental Organization
NOC: Non Objection Certificate
PCDP: Public Consultation and Disclosure Plan
PL: Punj Lloyd
PPE: Personal Protection Equipment
PS: Performance Standard
RoU: Right of Use
SRT: Stakeholder Relationship Team
WP: Well Pad

INTRODUCTION

This report summarizes observations made during the seventh site visit (January 9th to 17th, 2011) by D'Appolonia S.p.A., Italy (D'Appolonia), serving as the External/Independent Environmental, Health and Safety (EHS) Compliance Monitoring Consultant (referred to as the External Compliance Monitoring Group – ECMG) for the Rajasthan Block (Upstream) and Barmer to Salaya pipeline (Midstream) Projects, India (“the Project”).

The Project construction has been completed and is now in the operational phase. The ECMG team’s focus during this mission was to verify the decommissioning and reinstatement of the areas used by the Projects during construction (e.g. camps and yards) and review the final documentation for those activities (e.g. reforestation programme, greenbelt development plan, re-engagement plan, etc.) that will continue under the operational phase. It should be noted that, in concert with Cairn Energy India Pty Limited (CEIL) and the Lenders, tracking of some late construction activities (final closure of some yards and the spur line from Viramgam terminal to Oil India Terminal) has been shifted to the Salaya – Bhogat Crude Projects Oil Pipeline Extension Project.

This External Compliance Report is broken down into two key subject areas, as follows:

- compliance with International Finance Corporation (IFC) Policies and Guidelines; and
- compliance with the Environmental and Social Impact Assessment (ESIA) documentation and projects Environmental Management Plans (EMP).

ECMG observations that require action and that will be reviewed in subsequent assessments have been collected in Table 1.1– Follow-up Issues. Table 1.1 was updated by the ECMG following each project visit assessment. In general, issues closed in the previous visit have been removed from the table, issues closed during this visit have been designated as such and highlighted in gray, and new issues given a distinctive number with the first digit indicating the mission. Since, as mentioned, the construction activities have been completed, some open issues highlighted during the previous audit reports are no longer valid. Where the Project provided documentation and/or sufficient information that specific issues were resolved, they will be indicated in the table as a **Closed** issues. Otherwise, those issues where no supporting documentation is submitted but are no longer pertinent will be indicated in the table by **Close by Default**. As outlined above, some line items will be closed in this report although there are not fully completed. Closure of these items will be tracked under a specific section in the next Salaya – Bhogat Audit reports.

Cairn Energy India Pty Limited, a subsidiary of Cairn India Limited, is party of the RJ-ON-90/1 Block (Rajasthan Block) Production Sharing Contract, dated May 15 1995, and Operator of it on behalf of a Joint Venture with the Oil and Natural Gas Corporation Ltd, a Public Sector organization that holds 30% interests in the Joint Venture. In addition, in August 2007 the Government of India accorded to Cairn India and ONGC the right to acquire the Right of User for laying a crude transportation pipeline from Barmer to Salaya.

CEIL obtained environmental clearance from the Ministry of Environmental and Forest, Govt. of India, in March 2006 for the development and production of five fields in the north and central parts of the Block: the Mangala, Aishwariya, Saraswati, and Raageshwari oil fields and the Raageshwari gas field. These fields are spread over an area of about 3,200 Km² in the Barmer and Jalore Districts of south-western Rajasthan, within the arid zone of the Indian Thar desert region. In March 2008 CEIL obtained Environmental Clearance for Bhagyam oilfield and the augmentation of the production capacity from the Mangala Process Terminal (MPT) up to 140,000 bopd. The approximate area of Bhagyam oilfield is 5.2 km² and is located about 17 km from the MPT.

The Barmer to Salaya pipeline project is used for the evacuation of crude oil from the MPT to various Government of India nominated buyers along the route. The pipeline currently extends from Barmer, in the State of Rajasthan, to Salaya, in the neighboring State of Gujarat. The pipeline, consisting of a 24 inch diameter insulated pipe and an 8 inch diameter gas pipe, crosses the districts of Barmer and Jalore in Rajasthan, enters the state of Gujarat in Banaskantha, traverses through Patan, Ahmedabad, Surendarnagar, Rajkot, and finally terminates in Jamnagar. The total pipeline length is about 600 Km of which approximately 150 Km passes through Rajasthan and 450 Km through Gujarat. As the crude oil is waxy by nature, the pipeline has been equipped with a Skin Effect Heat Tracing System to enable heating of the crude along the route. The pipeline has several associated facilities like heating stations, pigging stations, storage areas, handling and pumping stations. Heating stations are installed at approximately every 18 Km,

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for a total of 32 stations, along the entire pipeline route. Storage, heating and pumping stations have been established at a dedicated terminal in Viramgam, Gujarat.

Cairn has sought financial assistance from IFC and committed to apply its Performance Standards on Social and Environmental Sustainability to the design, construction, operation, and closure of the Project.

IFC involvement and financing require both pre-finance project due diligence and post-finance project assurance with various social, environmental, health, and safety IFC Safeguard Policies relevant to the Project, as presented in the projects Upstream and Midstream ESIA's. CEIL has committed to external/independent social, environmental, health, and safety compliance monitoring to provide an additional level of transparency to the implementation of its management programs.

D'Appolonia scope of work is to conduct quarterly visits during the construction of the Project in order to:

- identify areas and degrees of compliance with the Equator Principles and the following IFC Policies and Guidelines:
 - IFC General Environmental, Health and Safety Guidelines (April 2007),
 - IFC Environmental, Health and Safety Guidelines for Oil and Gas Development, Onshore (April 2007) and Offshore (December 2002), and
 - IFC General Environmental, Health and Safety Guidelines for Waste Management Facilities (December 2007);
- identify areas and degree of compliance with each of the following IFC Performance Standards (PS):
 - Performance Standard 1: Social and Environmental Assessment and Management Systems,
 - Performance Standard 2: Labor and Working Conditions,
 - Performance Standard 3: Pollution Prevention and Abatement,
 - Performance Standard 4 Community Health, Safety and Security,
 - Performance Standard 5: Land Acquisition and Involuntary Resettlement, and
 - Performance Standard 8: Cultural Heritage;
- compliance with previously developed Action Plans (AP) and/or agreements between Cairn and IFC and other Banks;
- identify areas and degree of compliance with the following Cairn developed plans:
 - Environmental, Health, Safety and Social Management System (EHSS-MS) as described in the Cairn India Corporate Responsibility Management System (CRMS), and
 - Projects specific ESIA and EMP,
 - provide practical guidance and advice to Project's field teams, and
 - identify specific EHS issues and conduct follow-up and closure of open issues.

The Focus areas of the EHS reviews are the following:

- EHS Management performance;
- EHS compliance (versus Indian and International standards as presented in project specific ESIA's and EMP's);
- compliance with IFC PS on Social and Environmental Sustainability and EHS Guidelines;
- facilities review; and
- implementation of the EHS Action Plans (as presented in the ESIA's and EMP's).

During the field activities, D'Appolonia reviewed all Project's associated facilities (i.e. the MPT, the Right of Use, Projects camps and yards, etc.) based on direct observations, interviews with project personnel, and pertinent documentation provided by CEIL.

Activities conducted during this site visits focused closure of few construction EHSS issues including the following:

- verify proper demobilization and reinstatement of all construction camps and yards;
- review and audit Project EHS issues along the new Viramgam spur line;

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- assess Project plans to ensure that long term EHSS issues like revegetation at terminals and Above Ground Installations (AGIs) and Project commitments like afforestation plans, re-engagement plans, and social programs are sufficiently developed;
- visit of the ECMG environmental team to the Project facilities including: the MPT, the Viramgam spur line, the truck loading and truck staging areas located near the MPT; temporary worksite camps and storage areas at Sanchore, Sachana, Wankaner, Dhrol, and Chela;
- meetings of the ECMG social team included:
 - o Corporate Social Responsibility (CSR), Stakeholder Relations Team and land acquisition teams in Gujarat and Rajasthan,
 - o the CSR and communication management in Gurgaon,
 - o a member of the Business Transformation Group (BTG) in Gurgaon, and
 - o the security GM in Gurgaon;
- review of documentation provided by CEIL specifically related to the projects (Upstream and Midstream); and
- review of the documentation relating to the development program.

The final closeout meeting was conducted at CEIL's Gurgaon offices on January 20th, 2011, with the information presented in the meeting forming the basis for this report. The information, observations, and opinions presented in this report are solely of D'Appolonia and are independent of those of CEIL and IFC.

EXECUTIVE SUMMARY

The Project construction phase has been completed, except for the Viramgam spur line currently under construction and the final decommissioning of some yards, and all activities are now related to the operational phase. The main subcontractors (Tata Projects Limited, Punj Lloyd [PL], and Indian Oil Tanking Limited) have fully demobilized and only Larsen and Toubro personnel is still present, although with skeleton crews, at the Wankaner and Sachana yards and, with a reported crew of about 100 people, at the Viramgam spur line where they recently have been awarded the construction contract. Most of the EHS personnel have been moved to other CEIL projects (the development of the Bhagyam and Aishwariya fields, Bhogat – Salaya pipeline extension). As reported by CEIL management, EHS personnel now assigned to the Bhogat – Salaya Project also oversees the final closure of the remaining yards at Dhrol and Wankaner, while personnel at now operational Viramgam terminal oversees the Sachana yard closure the Viramgam spur line construction. The current on-going field activities do not present particularly sensitive EHS challenges and no major issues related to EHS were observed by the ECMG team during this field visit. Overall, the assigned EHS personnel, use of PPE, housekeeping, and other EHS measures and standards were observed to be implemented indicating that CEIL current supervision is appropriate for on-going activities.

Most EHS issues tracked during the construction phase (monitoring, ground and surface waters, waste management, hazardous material management and pollution prevention, RoU management, and health and safety) have been closed or are no longer relevant since the Project is in the operational phase. Only some issues relative to reclamation and revegetation are currently pertinent to the construction phase such as final closure of the construction yards, the construction of the Viramgam spur line, and the green belt and afforestation programs.

Fully demobilized yards include the PL labor camp and pipe yard, both located at Chela. At the MPT, sites decommissioned, reinstated, and handed over to the landowner include the L&T open yard, the truck loading area and the truck staging area, both operated by Yennai Hydrocarbon Services, and the new labor camp at MPT, which was decommissioned and returned to the landowner before the October 2010 visit. According to CEIL management all attempts to re-enter this site failed as the owner did not grant permission; however, since the *No Objection Certificate* (NOC) had already being signed and the area returned to the owner, this site is considered to be closed. Yards that are in the final stage of demobilization include the Kazstroy Service yard at Dhrol, the L&T yard at Sachana, located near the Viramgam terminal, and their Wankaner pipe yard. At the Dhrol yard, all equipment has been removed and only minor reinstatement is needed (remove of some left over debris and ground grading). The L&T yard at Sachana was under full demobilization when visited by the ECMG team, and the Wankaner pipe yard is in the final stages of demobilization as material and equipment are moved to the Bhogat Project area. Overall, final closure activities do not present particularly challenging and/or sensitive EHS issues and current management and supervision, as observed by ECMG during the field visit, appear to be sufficient to ensure that Project EHS final closure standards and procedures are properly followed. As outlined in the October 2010 audit report, the old camp at the MPT have been decommissioned but not reinstated since it is locked in a legal dispute between L&T the land owner. The dispute, which centers on final reinstatement of the site, may not be resolved quickly; therefore, final closure of this camp is not likely to happen in the near future. However, in the event L&T in court and is allowed to demolish the camp, the Project commits to a full and complete reinstatement of the area. In case an agreement is reached with the landowner to leave some structures (septic tanks, brick structures, etc.) on the property, the Project will carefully document (complete list of what is left on site, pictures of the site, etc.) what is being left on site as ECMG has suggested in previous reports for other sites.

The construction of a short 10 inch, 2.5 km spur line, connecting the Viramgam Terminal to a nearby Indian Oil Terminal, has started in late November 2010, and is expected to be completed by May 2011. It should be noted that only a 1.2 km section of this spur line lay outside the terminals' boundaries. This short section is on bare land already owned by Indian Oil Corporation Limited and no land acquisition had to be carried out, therefore, reinstatement after construction is expected to be straight forward. The spur line construction does not present particularly challenging and/or sensitive EHS issues and current management and supervision of field activities, as observed by ECMG during the field visit, appear to be adequate to ensure that Project EHS standards and procedures are properly followed.

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In concert with Lenders and CEIL, the yards closures and spur line construction and closure will be monitored under the Salaya – Bhogat Project Audit reports. Under this agreement, CEIL commits to submit detailed reports to ECMG documenting closure of the yards and construction status and closure activities for the Viramgam spur line.

Greenbelt plantation is on-going at the Upstream and Midstream projects although at different stages due to the construction activities ongoing at each particular site. As previously reported, the Project has drafted an overall revegetation plan with clear commitments with respect to performance criteria (85% survival rate after five years of plantation), monitoring, and progress reporting. Contracts to local communities for the green belt development at the terminals and at the AGIs have been awarded, or are in the final stages of being awarded. However, with respect to the Project compensatory afforestation program, CEIL should outline its future commitments to compensatory/forestation projects indicating the resources (e.g. total number of plants, total number of forestation projects with total acreage, etc.) and the time frame over which it plans to fulfill its obligations.

The organization of the Corporate Social Responsibility in the Upstream Project (including MPT, Raageswhari and the Bhagyam and the Aishwariya fields' development Projects) has been redefined. The CSR staff has been increased to ten field officers, three of them women, all based in Barmer. The other team, covering the Midstream (Pipeline) project and the Salaya to Bhogat pipeline extension, includes a total of six officers. The Midstream field officers are based in Sanchore, Viramgam, Radhanpur, Rajkot, Jamnagar, and Khambaliya. A CSR manager, based in Gurgaon, supervises the teams.

Each Barmer staff member has been given responsibilities according to his/her experience and specific field of expertise (including health, education, livelihood), but also following the geographical distribution of the Project in the field. The new CSR staff members, met by the ECMG team, appear qualified and experienced; however, concern remains on the overall coordination of the team in Barmer. At present, coordination is ensured by the CSR manager based in Gurgaon, who also coordinates the activities of the Enterprise Center in Barmer since the new manager has not been appointed yet. ECMG is of the opinion that a CSR coordinating manager based in Barmer is needed. He/she could be selected among the existing staff, or the responsibility given to the EC manager, who should be appointed as soon as possible.

ECMG received and reviewed a draft of a comprehensive Community Development Framework, prepared for CEIL by a consultant, for the Mangala Development Pipeline Project. The document is a comprehensive scoping document that synthesizes most of CEIL policies and practices and gives sound recommendations, including best practices and methodologies. The next step is transform this scoping document into a Corporate document (CEIL Community Development Strategy) that outlines the Company's objectives with reference to community investment, approach, methodology and actions for implementation (drawing from already existing practices that have been successful and new proposed ones), project time lines, budget etc. The document should reflect Cairn's commitments to Community Investment and the model that Cairn will adopt for successful project outcomes that are appropriate to the local context and meet project requirements.

The CDF includes the presentation of elements of stakeholder engagement, communication, and consultation. However, a revision of the corporate PCDDP for the Upstream project and for the Midstream project should be prepared as a separate document and disclosed to all stakeholders. The documents should follow the structure of the previous PCDDPs for Rajasthan and Gujarat.

The revised LACP presented by CEIL is overall adequate as an updated LACP for the operations in the Gujarat portion of the Project (Pipeline or Midstream project). ECMG recommends (i) completing it with the number of land owners affected by temporary and permanent land acquisition insofar; and, (ii) revising the title since the document does not include the Upstream (Rajasthan) project. The Project should still present an updated LACP for the Rajasthan (Upstream) project operation. Furthermore, ECMG recommends that the external annual audit on land acquisition established by the LACP be carried out for the Midstream portion of the pipeline.

With respect to local employment and re-engagement of local workers in the operation phase, CEIL is developing a number of initiatives to ensure that its operations offer the maximum benefit to the local population, in terms of contracts and employment, and to track the employment offer and the impact on communities. These initiatives include the issuing of a Local Content Policy that mandates the engagement of a minimum of 60% locals, when available, with priority to land-losers and long term residents; a local vendor database including a system that will check whether "genuine" local vendors and land-losers are

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engaged; a land losers and communities database, also linked to employment offers and CSR activities; and local vendor development activities, including dedicated workshops, in the Enterprise Center in Barmer. According to ECMG, the Local Content Policy and the various initiatives for local income generating activities demonstrate the Project's commitment in re-engaging local workers and affected persons.

Recently, after the end of the joint funding of IFC-Cairn to the Enterprise Center, the EC has been transformed in a non-profit entity directly managed by CEIL through a board comprising of eleven members from CEIL management. The position of EC manager is still vacant and the function is at present covered by the CSR manager based in Gurgaon, who is also EC board secretary. EC has now a five year program developed around three main themes: welfare (through CSR activities); local vendor development and database; and soft skills and capacity building. In the mean time, the EC continues the ongoing programs (such as training for leather artisans, improved goats breeding for women, dairy program). The CSR team is carrying out participatory needs assessments and resource mapping in communities to identify other opportunities.

ECMG recommends including counseling and advisory service for land losers and former local workers in the Enterprise Center programs. The services should provide advice on (i) how to invest compensations received; and, (ii) how to maximize benefits of the working experience, acquire new skills, and apply for a new job.

Table 1.1: FOLLOW-UP ISSUES

Mission/ Issue No.	IFC Policy / ESIA Compliance	Description	Status	Comments	Priority	Project
EHS Management organization and Resources						
M1.4	ESIAs/EMPs	CEIL should continue to ensure that EHS standards are fully implemented during the decommissioning phase. Supervision by Cairn experienced personnel is still required to ensure project HS standards are met. (Modified)	Closed		N/A	
Reclamation, Revegetation, and Topsoil Management						
M5.2	IFC EHS Guidelines for Onshore Oil and Gas Development p. 13 Upstream: ESIA § 5.4.7.3 Midstream ESIA § 4.4.5	The Project should outline its future commitments to compensatory/forestation projects indicating the resources (e.g. total number of plants, total number of forestation projects with total acreage, etc.) and the time frame over which it plans to fulfill its obligations. (Modified)	Pending		Medium	Midstream
M6.1		The Project is planning to construct a new 2.5 km spur line from the Viramgam Terminal to a nearby Indian Oil Terminal. Unless ownership of this work is assigned to a new Project (e.g. Salaya to Bhogat Project), the Barmer – Salaya construction phase can not be considered finished until the spur line is completed.	Closed	The spur line construction and closure will be monitored under the Salaya – Bhogat Project Audit report CEIL commits on regular EHS monthly reports and final closure documentation submission.	N/A	Midstream
M6.2	IFC EHS Guidelines for Onshore Oil and Gas Development p. 13 and 15 Upstream: ESIA § 5.2.5, 5.4.6.1, 5.7.1	The Project should make and document all possible efforts to re-enter the new labor camp at MPT, pile the construction debris in a demarcated area on site farther away from the private dwelling/business structures, ensure that no metal or other protruding material is on the ground, and grade the area filling any significant depressions/holes.	Closed	According to CEIL management all attempts to re-enter the site were refused by the landowner since the NOC was already signed and the area returned to him.	N/A	Upstream

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Mission/ Issue No.	IFC Policy / ESIA Compliance	Description	Status	Comments	Priority	Project
M6.3	IFC EHS Guidelines for Onshore Oil and Gas Development p. 13 and 15 Upstream: ESIA § 5.2.5, 5.4.6.1, 5.7.1 Midstream: EMP § 2.7.1	The Project should complete demobilization and full reinstatement of all camps (e.g. Chela pipe yard, Dhrol, truck loading area at MPT) in order to complete the construction phase. As an alternative, CEIL could pass ownership of these yards to other projects (e.g. Salaya to Bhogat Project).	Closed	The yards closure will be monitored under the Salaya – Bhogat Project Audit report CEIL commits direct supervision of contractor closure activities and on submission of final closure documentation.	N/A	Upstream Midstream
M6.4	IFC EHS Guidelines for Onshore Oil and Gas Development p. 13 Upstream : ESIA § 5.4.7.3 Midstream ESIA § 4.4.5	The Project should provide details on issued contracts for the development of the greenbelt at all terminals and AGIs.	Closed		N/A	Upstream Midstream
Health and Safety Management and Occupational Health						
M6.5	PS 2 and PS4	The Project should ensure that required PPE is enforced and that all active camps and pipe-yards are managed according to Project and IFC standards.	Closed		N/A	Midstream
Social Management						
M3.12	PS 1, §217	Provide sufficient management sponsorship and human and financial resources on an ongoing basis to achieve effective and continuous social performance.	Closed	The Project should expedite the appointment of the EC manager and ensure overall coordination.	High	Upstream Midstream
M5.4 (M1.40)	Action Plan – September 2009	Prepare, disclose, and implement a “Community Development Strategy”. (Modified)	Pending	A Community Development Framework has been prepared for CEIL by a consultant. CEIL should extract from this report a corporate document, and disclose it as CEIL Community Development Plan.	High	Upstream Midstream

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Mission/ Issue No.	IFC Policy / ESIA Compliance	Description	Status	Comments	Priority	Project
Public Consultation and Communication						
M5.5	Cairn PCDP §11	Revise and disclose PCDPs for the operational phase, for the Upstream and Midstream Projects. (Modified)	Pending - Repeated		Medium	Upstream Midstream
Land Acquisition						
M5.6	Cairn LACP §8	Revise and disclose Upstream LACP for the operation phase, including lessons learned. (Modified)	Pending - Repeated	Close for Midstream	Medium	Upstream
Labor and Working Conditions						
M2.13	PS 6 Labor and working conditions, § 12 Retrenchment	CEIL to prepare a re-engagement plan for local workers who will be laid off at the end of the construction phase.	Closed	CEIL has issued a Local Content Policy and is launching the various initiatives for local vendors and income generating activities.	High	Upstream

**SEVENTH SITE VISIT OF THE D'APPOLONIA ECMG TO THE RAJASTHAN
BLOCK AND BARMER TO SALAYA PIPELINE, INDIA, JANUARY 2011**

1 CONSTRUCTION STATUS

The Project construction phase has been completed, except for the Viramgam spur line currently under construction, and all activities are now related to the operational phase. Current Project status, as presented to ECMG, is as follows:

- Upstream – the operations consists of three main facilities: the Mangala Oil Field, the Raageshwari Deep Gas Field, and the Thumbli water Field. The Mangala Oil Field development includes eighteen Well Pads (WPs) for a total of about 161 wells (production and injection wells) and the MPT that includes 48 MW gas fired boilers steam turbine gas power plant and a 160 MW heating plant. Current average Production rate is 125,000 barrels per day with a reported storage capacity within the MPT of 500,000 barrels or equal to about four days of production. Associated gas from the Mangala extraction wells is currently sufficient to fuel the on-site power plant. The landfill at the MPT has been completed with the hazardous, non hazardous, and leachate evaporation pit now fully operational. The incinerator has been commissioned in mid-December and the construction of a storage and a stabilization shed, located near the incinerator, has been completed. The Raageshwari Gas Field development includes 35 gas wells on 4 WPs and the Raageshwari Gas Processing Terminal. Gas production from this field is used to partially meet the energy requirements at the MPT and to provide power at the AGIs, located along the pipeline route, for heat generation needs to keep the crude flow. The Thumbli water field includes 5 deep water wells of which three are currently in production, one has recently been completed, and one still to be completed. Each well has a production capacity of about 55,000 barrels per day; and
- Midstream – as reported in the October 2010 Audit, the pipeline and all its associated facilities (AGIs and terminals) have been operational since June 2010 and restoration along the RoU has been completed. Some camps and yards have been fully decommissioned and reinstated (Chela camp and yard) while others are in the final stages of demobilization/reinstatement (Dhrol, Wankaner, Sachana). Construction of a 2.5 km, 10 inch, insulated but not heated spur line at Viramgam as started in late November 2010 and is expected to be completed in May 2011. It should be noted that only 1.2 km of this spur line are outside terminals boundaries but on land already belonging to Indian Oil Corporation. Most of the pipeline sections have been delivered on site and some welding (about 500 m) and trenching (250 m) have been completed.

The ECMG team visited all the Project camps and pipe-yards that were still active during the last field visit (October 2010), the Viramgam spur line, and selected facilities at the MPT.

2 EHS MANAGEMENT ORGANIZATION

Observations:

The Project construction phase has been completed with the main subcontractors (Tata Projects Limited, Punj Lloyd [PL], and Indian Oil Tanking Limited) fully demobilized. Larsen and Toubro (L&T) personnel is still present, although with skeleton crews, at the Wankaner and Sachana yards where demobilization is in the final stages and, with a reported crew of about 100 people at the Viramgam spur line where they recently have been awarded the construction contract. Consequently, CEIL field EHS team has been reduced with personnel now moved to the Salaya to Bhogat Project. This same EHS personnel, as reported by CEIL management, also oversees the Wankaner demobilization activities and the Dhrol camp (Kazstroy Service) final reinstatement while Viramgam Terminal EHS personnel supervises the spur line construction and Sachana demobilization activities. The current on-going field activities do not present particularly sensitive EHS challenges and no major issues related to EHS were observed by the ECMG team during this field visit. Overall, the use of PPE, housekeeping, and other EHS measures and standards were observed to be implemented indicating that CEIL current supervision is appropriate for on-going activities.

As outlined in the Introduction above, yards final closure and the construction of the Viramgam spur line will be tracked under the Salaya – Bhogat Audit reports. CEIL plans to submit to ECMG detailed documentation, including photographs, of the yards closure activities and monthly reports on the Viramgam spur line construction progress.

IFC Policy and/or ESIA/EMPs Policy Action Item

Nil

Recommendations for Improvement:

Nil

3 ENVIRONMENT

3.1 ENVIRONMENTAL ORGANIZATION AND STAFFING

Observations:

The Project is now in the operational phase and only a 2.5 km, 10 inch, insulated but not heated single pipeline, connecting CEIL Viramgam terminal to Indian Oil Corporation Ltd (IOCL) Terminal, is currently under construction by L&T. At the Viramgam terminal, CEIL environmental management structure present during construction is no longer present, having been replaced by EHS personnel in charge of overseeing the daily operations of the terminals and the pipeline. Most of the EHS construction personnel have been moved to other projects (the development of the Bhagyam and Aishwariya fields, Salaya to Bhogat pipeline extension and terminal) although decommissioning and reinstatement activities at few of the construction yards, principally in the Midstream project, have not been fully completed.

For the Viramgam spur line, CEIL has appointed one EHS manager and one construction manager to oversee construction activities. L&T, the construction contractor, has one safety engineer and two field supervisors assigned to the 100 men crew working on the Viramgam spur line. Weekly EHS reports are issued by L&T, submitted to CEIL and then compiled in a monthly report by CEIL personnel and forwarded to the EHS manager in charge of the Bhogat – Salaya Project. Given the close proximity of the Viramgam terminal to the work site, CEIL personnel is reported to frequently visit the pipeline corridor (at least once per day if not more).

IFC Policy Action and ESIA/EMP Policy Action Item

Nil

Recommendations for Improvement:

- a. CEIL should ensure that EHS personnel visit decommissioned/reinstated sites before they are returned to the landowner to ensure Project standards (clearance of debris and waste material, grading of grounds, etc.) are implemented.

3.2 MONITORING AND AIR QUALITY

Observations:

As outlined in the October 2010 report, since May 2010 the Project monitoring for both the Upstream and Midstream Projects is designed and carried out focusing on operational activities.

IFC Policy Action and ESIA/EMP Policy Action Item

Nil

Recommendations for Improvement:

Nil

3.3 GROUNDWATER AND SURFACE WATER

Observations:

A fourth groundwater well has been completed at the Thumbli saline aquifer while another well still needs to be completed. As discussed in the October 2010 report, although the reverse osmosis plant at the MPT can provide all the required industrial water for the facilities at the MPT, industrial water for drilling at some of the Mangala WPs is still supplied by local vendors. It should be noted that using local water

suppliers is a Project strategy to provide affected stakeholders with a source of income and not because of Project needs. The Project, as part of the operational phase, will continue to analyze groundwater data from established monitoring point and to update its groundwater model to ensure extraction from the Thumbli field does not affect the local aquifer. Currently, the model indicates that no significant changes in regional aquifer pressure and salinity have occurred.

Midstream – All AGIs and terminals, like Radhanpur and Viramgam, have been completed and handed over to operations. Therefore, groundwater procurement for the construction phase has ceased. A comprehensive assessment of groundwater resource at different sites along the Barmer – Salaya pipeline route showed that the impact of water extractions due to Project activities had been negligible.

<i>IFC Policy Action and ESIA/EMP Policy Action Item</i>
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Nil

Recommendations for Improvement:

- a. The Project should work in concert with the CSR team to gradually phase out, if and where possible, the use of local suppliers as a source of industrial water; and

The Project should develop a contingency plan for mitigating measures, if monitoring results indicate adverse impacts on the fresh water aquifer.

3.4 RECLAMATION AND REVEGETATION MANAGEMENT

Project Strategy:

The Upstream and Midstream Project ESIA and EMPs define general measures to prevent and mitigate the impacts on soil resources. Potential impacts of concern include reduction of topsoil fertility and increased erosion due to surface disturbance, vegetation removal, and inadequate reclamation. CEIL is committed to implementing mitigation measures for the protection and preservation of topsoil in the RoU along the pipeline, at temporary well pads, and at road crossing sites. Preserved topsoil should then be used during reclamation. Erosion minimization through temporary and permanent erosion control measures in disturbed areas is also part of the Project strategies. Revegetation and the development of greenbelt areas around permanent facilities (e.g. the Mangala, Raageshwari, and Viramgam Terminals, the AGIs) are other Project commitments.

The Project philosophy on reinstatement is clearly outlined in both Upstream and Midstream ESIA documents and in CEIL Site Restoration Guidelines document. Project development will be done with due regard for local development plans and compatible with the surrounding land use. Restoration will be carried out so that the site will be returned to near original conditions. As part of the reinstatement process, the Project recognizes the importance of the correct management and preservation of topsoil during construction activities. Topsoil stripped during site clearance should be properly stored to preserve its physical-chemical characteristics and to avoid loss due to erosion.

The Project recognizes the particular value of vegetation in the arid climate of the region and has made a strong commitment for the revegetation and the development of greenbelts around permanent facilities. In the construction phase, particular care will be taken to minimize flora disturbance and tree cutting and the project proposed the development and maintenance of a nursery to facilitate the revegetation process. The greenbelt programme and revegetation activities should be concomitant with site clearing activities and, as per Project commitments, the number of trees replanted should be at least twice the number of the trees cut during site preparation activities. Furthermore, the greenbelt extension should be no less than 25% of the total area covered by the permanent facility.

Observations:

The Project construction phase is completed. Camps and yards sites that were still operational during the ECMG October 2010 visit are now at different stages of demobilization/reinstatement. As described in the last audit report, reinstatement along the RoU and the main spur lines (Radhanpur, Reliance, Essar, and

Raageshwari) has been completed. However, the construction of a short 10 inch, 2.5 km spur line, connecting the Viramgam Terminal to a nearby Indian Oil Terminal, has started in late November 2010 and is expected to be completed by May 2011. It should be noted that only a 1.2 km section of this spur line lay outside the terminals' boundaries. This short section is on bare land already owned by Indian Oil Corporation Limited and no land acquisition had to be carried out, therefore, reinstatement after construction is expected to be straight forward. Furthermore, the spur line construction does not present particularly challenging and/or sensitive EHS issues and current management and supervision of field activities, as observed by ECMG during the field visit, appear to be sufficient to ensure that Project EHS standards and procedures are properly followed. In concert with Lenders and CEIL, the spur line construction and closure will be monitored under the Salaya – Bhogat Project Audit reports. Under this agreement, CEIL commits to submit monthly reports to the ECMG. Upon construction completion, the construction manager will submit a report detailing restoration activities, waste disposal, and other relevant EHS information, and an EHS corporate representative will inspect the restored site to document proper closure. These two reports will be submitted to the ECMG for review.

Fully demobilized yards include the PL labor camp and pipe yard, both located at Chela. At the MPT, sites decommissioned, reinstated, and handed over to the landowner include the L&T open yard, the truck loading area and the truck staging area, both operated by Yennai Hydrocarbon Services, and the new labor camp at MPT, which was decommissioned and returned to the landowner before the October 2010 visit. ECMG requested CEIL to attempt re-entering, with the landowner consent, this last site to accumulate all debris left on site at owner request on one side of the area in order to minimize safety issues as the land is bordered by some dwelling and temporary business that were servicing the camps when they were active during the construction phase. According to CEIL management, all attempts to re-enter the site failed as the owner did not grant permission; however, since the *No Objection Certificate* (NOC) had already being signed and the area returned to the owner, this site is considered to be closed.

Yards that are in the final stage of demobilization include the Kazstroy Service yard at Dhrol, the L&T yard at Sachana, located near the Viramgam terminal, and their Wankaner pipe yard. At the Dhrol yard, all equipment has been removed and only minor reinstatement is needed (remove of some left over debris and ground grading). According to field personnel, final reinstatement should be completed by the end of January 2011. The L&T yard at Sachana was under full demobilization when visited by the ECMG team. Material and equipment is reported to be moved to other L&T locations but some will be relocated to a Gujarat Industrial Developing Corporation site, located nearby, to support the construction activities of the Viramgam spur line. The expected date of decommissioning of the Sachana yard is the end of January 2011. It should be noted that this site is in an industrial area; therefore, reinstatement will be limited to clearance of the site from all debris. The Wankaner pipe yard is in the final stages of demobilization as material and equipment is moved to the Bhogat Project area. As for the other yards, the expected decommissioning date is the end of January. The yard was mainly used as a pipe storage area during the construction phase with limited equipment, mainly lifting cranes, operated on site for loading and unloading operations. The site does not present any major EHS issues with respect to the reinstatement once all debris is cleared, grounds graded, and topsoil restored. This last element is probably the most critical since the area may be used as agricultural land by the landowner(s). However, final closure activities do not present particularly challenging and/or sensitive EHS issues and current management and supervision, as observed by ECMG during the field visit, appear to be sufficient to ensure that Project EHS final closure standards and procedures are properly followed. As for the Viramgam spur line construction, and in concert with Lenders and CEIL, the final closure of the above yards (the Kazstroy Service yard at Dhrol, the L&T yard at Sachana, and the Wankaner pipe yard) will be monitored under the Salaya – Bhogat Project Audit reports. Under this agreement CEIL will ensure that contractors carry out the clean up and restoration according to Project standards. A CEIL corporate EHS representative will inspect the restored sites and closure reports will be review by the Salaya – Bhogat construction manager and declarations of completion will be submitted to IFC and ECMG. Closure activities are expected to be fully by the end of March 2011 but, pending documental review of closure activities, ECMG may request to visit the sites before final closure is granted.

The status of the old labor camp near the MPT grants a separate discussion. As outlined in the October 2010 audit report, this camp have been decommissioned but not reinstated since it is locked in a legal dispute between L&T and the land owner. The dispute centers on the final reinstatement of the area with CEIL wanting to demolish all the permanent structures (the brick housing, toilets and showers, and mess

hall) and the owner wanting to keep these structures for future use. According to CEIL management, the legal dispute may not be resolved quickly; therefore, final closure of this camp is not likely to happen in the near future. In the event L&T prevails in court and is allowed to demolish the camp, the Project commits to a full and complete reinstatement of the area. In case an agreement is reached with the landowner to leave some structures (septic tanks, brick structures, etc.) on the property, the Project will carefully document (complete list of what is left on site, pictures of the site, etc.) what is being left on site. If any construction debris is being left by owner requests, it will be carefully piled in a corner of the site, away from the main road, and a detailed photographic documentation will be taken and included in the NOC documentation. This procedure was already recommended by ECMG in previous reports.

As previously suggested, during the operational phase the Project should closely monitor all major river crossing and work in concert with the CSR team to ensure river bank maintenance and stability. Furthermore, to avoid any potential future disputes, the Project should continue working closely with the CSR team to ensure that post-reinstatement requests by landowners are fully understood, thoroughly documented, and properly addressed. Reinstatement issues will likely linger well into the operational phase with the focus likely shifting from environmental to social issues. Therefore, the Project should be prepared to face landowner requests well into the operational phase and should develop a joint strategy with the social team to manage effectively present and future reinstatement issues.

Greenbelt plantation is on-going at the Upstream and Midstream projects although at different stages due to the construction activities ongoing at each particular site. As previously reported, the Project has drafted an overall revegetation plan with clear commitments with respect to performance criteria (85% survival rate after five years of plantation), monitoring, and progress reporting. Contracts to local communities have been awarded, or are in the final stages of being awarded, for the green belt development at the terminals and at the AGIs. For the MPT area, the Project has developed the requirements for the implementing agency(ies) to follow and deliver. A review of the document by ECMG indicates that all the critical elements for successful implementation have been outlined.

In addition to the greenbelt program, the Project has initiated a compensatory afforestation program to compensate for the trees felled during the construction of the pipeline. The program includes participation with the local government and re-plantation project. As reported in the October 2010 Audit, one such participatory program in the Banaskantha District of Gujarat has been finalized and is in the implementation phase. The Project will monitor the success of this project before considering replication in other Districts. One of the critical aspects of future projects selection will be water availability to sustain the plan. At this stage it would be difficult for the Project to forecast where and when similar projects will be replicated; however, CEIL should outline its future commitments to compensatory/forestation projects indicating the resources (e.g. total number of plants, total number of forestation projects with total acreage, etc.) and the time frame over which it plans to fulfill its obligations. This will provide a blueprint for the operations phase to follow and allowing budget and resources to be properly allocated.

IFC and/or ESIA/EMP Policy Action Items

- M6.1 The Viramgam spur line construction will be tracked under the Barmer – Salaya Project Audit reports
- M6.3 The yards closure will be tracked under the Barmer – Salaya Project Audit reports
- M5.2 The Project should outline its future commitments to compensatory/forestation projects indicating the resources (e.g. total number of plants, total number of forestation projects with total acreage, etc.) and the time frame over which it plans to fulfill its obligations (**Modified**)

Recommendations for Improvement:

Nil

3.5 WASTE MANAGEMENT

Observation:

Many of the camps and yards used by the Project during construction have been reinstated and handed over to the landowner, closed and/or in the process of being reinstated, or drastically reduced and about to be demobilized (see details in Section 3.4). Waste generation during these activities is minimal.

At the MPT, the constructions of the evaporation pit and hazardous and non hazardous cells at the on-site landfill have been completed. In addition, the planned incinerator has been completed and commissioned and two sheds, one for storage of material to be incinerated and one where ashes will be stabilized, have been completed.

IFC Policy and/or ESIA/EMP Policy Action Item

Nil

Recommendations for Improvement:

Nil

3.6 HAZARDOUS MATERIALS MANAGEMENT AND POLLUTION PREVENTION

Observations

Most yards and camps used during construction have been closed or are in the process of being dismantled. Currently, no significant amounts of chemicals are present at any of the active sites.

IFC and/or ESIA/EMP Policy Action Item

Nil.

Recommendations for Improvement:

Nil

3.7 ROU MANAGEMENT

Observations:

The main pipeline and associated spur-lines have been completed, the Right of Use (RoU) corridors reinstated, and the Project is now handled by the operation team. No RoU issues are present at the Viramgam spur line currently under construction since IOCL already owned the land where the pipeline will be laid.

Security along the RoU to ensure pipeline integrity has been implemented from the inception of operations and no reports of any changes in the security scheme have been reported since the October 2010 audit visit. According to Project security management, only one minor pipeline tapping has been detected so far (December 2010). The issue was reported to be quickly and successfully resolved.

IFC and/or ESIA Policy Action Item

Nil

Recommendation for Improvement:

Nil

4 HEALTH AND SAFETY

4.1 HEALTH AND SAFETY MANAGEMENT AND OCCUPATIONAL HEALTH

Observations:

Very limited activities related to the construction phase of the Project are ongoing. Demobilization and final reinstatement are in the final stages at few yards and carried out with skeleton crews. The only significant construction work is at the Viramgam spur line where about 100 workers are involved in the laying of a 10 inch, insulated pipeline. It should be noted that these field activities present minor EHS issues. At all visited sites subcontractors EHS supervision has been observed to be adequate for the current work load. In particular, at the Sachana yard, the ECMG team verified that working conditions have significantly improved with better housekeeping and proper use of Personal Protective Equipment.

<i>IFC and/or ESIA/EMP Policy Action Item</i>

Nil

Recommendations for Improvement:

Nil

5 SOCIAL ISSUES

5.1 SOCIAL MANAGEMENT

Project Strategy:

The social aspects of the Project are managed by the CSR department. CSR is part of the general CEIL Corporate Responsibility Management Plan that includes also Environment, Health and Safety, and Security.

The CSR staff for the Upstream Project (including MPT, Raageshwari and the Bhagyam and the Aishwariya fields' development Projects) has recently been increased and restructured. It now comprises ten field officers, including three women, based in Barmer. The other team, covering the Midstream (Pipeline) project and the Salaya - Bhogat extension, includes a total of six officers that are based in Sanchore, Viramgam, Radhanpur, Rajkot, Jamnagar, and Khambaliya. A CSR manager, based in Gurgaon, supervises the teams.

A Corporate Social Responsibility Policy was issued on January 2008. Before disclosure of the ESIA (March 2008), a corporate level Public Consultation and Disclosure Plan (PCDP) and a corporate level Land Acquisition and Compensation Plan (LACP) were prepared, followed by more specific PCDP and LACP for each of the States affected by the Project (Rajasthan and Gujarat). In June 2008, an Environmental and Social Management Plan (ESMP) for the Rajasthan operations was prepared that included the relevant PCDP and LACP. No specific social action plan, apart from the specific PCDP and LACP, has been prepared for the Midstream project.

According to an agreement with IFC, a "Community Development Strategy Framework Plan" for the Midstream project was required by June 2008. During the mission, ECMG received a draft of a comprehensive Community Development Framework for the Mangala Development Pipeline Project.

Observations:

The organization of the CSR in the Upstream project has been redefined. Each staff member has been given responsibilities according to his/her experience and specific field of expertise (including health, education, livelihood), but also following the geographical distribution of the Project in the field. The new CSR staff members, met by the ECMG team, appear qualified and experienced. However, some concern remains on the overall coordination of the team in Barmer. At present, coordination of this team is ensured by the CSR manager based in Gurgaon who, in addition, also coordinates the activities of the Enterprise Center in Barmer since a new manager has not been appointed yet. ECMG is of the opinion that a CSR coordinating manager based in Barmer is needed. He/she could be selected among the existing staff, or the responsibility given to the EC manager who should be named as soon as possible.

ECMG has reviewed the draft of the Community Development Framework (CDF) prepared for CEIL by a consultant. The document is a comprehensive scoping document that synthesizes most of CEIL policies and practices and gives sound consultant's suggestions, including better practices and methodologies. CEIL should extract from the consultant work a corporate document and disclose it as CEIL Community Development Plan. ECMG detailed comments and suggestions to achieve this goal have been sent to CEIL in a separate document. The following are the main recommendations:

- CEIL should focus on approaches, methodologies and actions that will be (or are already) implemented and transform the consultant's recommendations in its own commitments, including action items, time lines and an implementation plan;
- The document should only synthesize and make references to the already approved CSR and compliance documents (including PCDPs and LACPs). These documents are separate documents that should not be "merged" in the CDF strategy; and
- CEIL should indicate which are the methodological tools for the monitoring and evaluation system that are (or will be) implemented. The document should also include, as an annex, a logical framework with clearly defined objectives and indicators for the overall CSR strategy and for the community development activities.

According to ECMG, CEIL should improve reporting on CSR and communication activities. The various meetings and interactions are properly logged, but no quarterly report is regularly prepared, as established by the framework PCDP ("*Preparation of brief quarterly progress and compliance reports for JV, and*

other external stakeholders on the grievance redressal, public consultation and progress update on the community development programmes" Section 4.3.1).

IFC and/or ESIA/EMP Action Items

M1.40 Prepare, disclose and implement a Community Development Strategy.

Recommendations for Improvement:

- a. CEIL should amend and disclose the CDF strategy as described in the text;
 - b. CEIL should expedite the recruitment of the Enterprise Center manager; and
- CEIL should regularly prepare quarterly and annual CSR and public consultations reports.

5.2 STAKEHOLDERS ENGAGEMENT

Public Consultation and Communication

The communication program for the Upstream and the Midstream projects is implemented in the frame of the PCDPs for Rajasthan and Gujarat.

In the Upstream and Midstream projects' affected areas, the interactions with the communities are carried out by three different teams with different tasks: the CSR team, dealing mainly with development programs; the land team, managing the land acquisition activities; and the Stakeholder Relations Team (SRT) whose tasks are midway between communication with stakeholders (both authorities and communities) and security. According to CEIL management, SRT has a short term scope, mostly linked to security issues (road blocks, assaults to Project's staff, thefts of Project's properties, etc.) arisen particularly in the Midstream project and another of CEIL on-going projects, the Bhogat to Salaya pipeline extension. The SRT keeps a dialogue approach using the experience of the team members (all former local policemen) and ensures respect of the laws in the framework of the company's policies (including the PCDP). The SRT coordinates with CSR, land and security teams in order to manage stakeholders. The head of SRT provides overall direction to the consultation process and guides the teams in the implementation of the PCDP.

Development Programs

From the beginning of its presence in Rajasthan, CEIL has been supporting various development initiatives either directly and/or in collaboration with local Non Governmental Organizations (NGOs). Also, public investments were sponsored by CEIL following the request of local authorities and communities affected by land acquisition. To date, a total of 63 villages, located in a 5 km radius of CEIL operations, have been involved in different development activities.

Since 2007 CEIL, in partnership with IFC, has also supported an Enterprise Center (EC) which provides technical assistance and training. The EC organizes training for micro and small enterprise as well as local vendors' development. A specific program has been developed for rural women in affected villages, engaging them in home-based handicraft linked to market through textile contractors and key exporters. In addition, the EC activities included EHS induction for CEIL and contractors' staff during the Project construction phase although the program has been discontinued since this phase has been completed. Organization of women into in Self-Help Groups and entrepreneurship development training for women is also provided. Another initiative has been to start a training program in agriculture, teaching farmers to grow new cash crops.

In the framework of the joint IFC-CEIL program, a Dairy Development Project, in cooperation with a local NGO, has been ongoing in the Rajasthan villages around the southern fields since 2007. The project has established 14 computerized milk collection centers and organized self-help groups of local producers linking them to a market network.

In December 2010, the joint funding IFC-Cairn of the EC has come to an end. The EC has been transformed in a non-profit entity directly managed by CEIL through a board comprising of eleven

members from CEIL management. The Center has also become the hub around which all CSR activities are organized. The EC has now a five year program developed around three main themes: welfare (through CSR activities); local vendor development and database; and soft skills and capacity building. The training program has been revised with attention to quality and links to the technical institutes present in the District. Among the projects to be launched there are: courses of basic and advanced computer for college students carried out by reputed institutions; course of spoken English in collaboration with the BBC; advanced welding training in collaboration with a reputed specialized training center in Kolkata. Meanwhile, the EC continues the ongoing programs, like training for leather artisans, improved goats breeding for women, and dairy program. In addition, CSR staff is carrying out participatory needs assessments and resource mapping in communities to identify other opportunities. The position of the EC manager is still vacant, its function presently carried out by the CSR manager, who is also EC Board secretary, based in Gurgaon.

In Upstream and Midstream areas, projects related to health and education are implemented in collaboration with NGOs and relevant local government. A number of programs related to health are being carried out in Rajasthan and Gujarat. These include health camps, which offer free of charge diagnostic health care and medicines by specialized doctors in the area of pediatrics, gynecology, orthopedic, ophthalmology and other fields, a mobile health van program, which includes a doctor, a pharmacist and a social worker, and awareness campaigns on malaria, water, sanitation, AIDS, and health. Since mid-2009, a Maternal and Child Health program, implemented by the NGO Chetna in coordination with Government funded nutrition centers, has been established in 42 villages in the District of Banaskantha (Gujarat). CSR also finances health awareness material, sponsors special events, and continues to sponsor medical education workshops for Barmer doctors in collaboration with government programs and relevant institutions. To be noted is the collaboration with UNICEF for the health and education programs with some schemes replicated by UNICEF in other areas.

With respect to education, the focus is on improving the quality of education by motivating teachers and students through school infrastructure renovations, reading rooms, science van, and English relay training. The theatre in education program ended its first phase but will be continued and a related handbook for teachers has been prepared. Special events in school are also sponsored. The Project is studying new programs related to girls' schooling such as dedicated tuition support, parents' sensitization and scholarships.

In the Midstream areas of operations, programs adapted to the linear feature of the Project and the main affected stakeholders (the farmers) have been developed in partnership with other government and corporate institutions. These include the Rural Facilitation Centers (Gramin Suvidha Kendra, G.S.K) or the Agri Kiosk initiative in collaboration with MCX (a multi-commodity exchange market based in Mumbai) and the Indian public postal service, which offers crop price information and other agricultural input services to farmers. Another initiative is the Agricultural Information Program, based on Reuters Market Light, a SMS-based information service for farmers developed by Thomson Reuters.

The CSR team also responds to *ad-hoc* reasonable requests from communities (micro-projects) willing to be directly involved. These requests range from de-silting of village ponds to forestation programs with a social forestry component.

Observations:

The Project has included elements of stakeholder engagement, communication and consultation in the comprehensive Community Development Framework for the Mangala Development Pipeline Project. However, a revision of the corporate PCDP for the Upstream and for the Midstream projects should be prepared as a separate document and then disclosed to all stakeholders.

The PCDP for the Upstream project and for the Midstream projects should be revised for the operational phase as established by the framework PCDP (*"The Rajasthan JV – Rajasthan Framework Public Consultation and Disclosure Plan is a 'living document' which updated periodically (every one to two years) to record consultation undertaken, issues raised and actions taken to describe any changes to the consultation process and to outline the schedule for on-going interactions."* Section 4.3). The documents should follow the structure of the previous PCDPs for Rajasthan and Gujarat and include:

- lessons learned;
- review of stakeholders and area of intervention;

- description and organizational chart of all teams involved in consultations (CSR, SRT, land); and
- risk management and impact mitigation.

IFC and/or ESIA/EMP Policy Action Items

M5.5 Revise Upstream and Midstream PCDPs for the operation phase, and disclose it.

Recommendations for Improvement:

Nil

5.3 LAND ACQUISITION

Project Strategy:

According to the corporate LACP and the specific Rajasthan and Gujarat LACPs, the strategy and procedure for land acquisition have been different in the Upstream and Midstream projects.

In the Upstream Project, land use has been characterized mostly by temporary use, during the seismic exploration activities, involving a relatively large number of small landowners, and by permanent land acquisition for the Upstream facilities. The acquisition process was executed through the national Land Acquisition Act procedure involving an *ad-hoc* local administration official, namely the Land Acquisition Officer (LAO). Barmer LAO acts as Competent Authority in the Rajasthan section of the pipeline. Acquisition for the RoU started in February 2009. The price for the land is determined by the LAO according to Government parameters, which CEIL increased substantially. According to local authorities and CEIL staff, the sums given for compensations have been generally much higher than market value and no construction was started before compensation for the land was paid.

In the Midstream Project, most of the land has been acquired for temporary use for the construction of the pipeline along the RoU. This land, after the pipeline had been laid and the corridor reinstated, is being returned to the landowners. The acquisition process has been executed through the provisions of the Petroleum and Minerals Pipelines Act involving the appointment by the Government of a Competent Authority (CA) that determined the compensation rates. Permanent land acquisition for all infrastructures related to the pipeline, namely the AGIs along the Barmer to Salaya RoU and the MPT, Viramgam, and Radhanpur terminals, has been acquired through direct negotiation with the landowners.

A CEIL contractor, SECON Private Ltd., has been involved in facilitating the administrative process of the RoU acquisition and still collaborates with CA teams to explain procedures to land owners and to maintain liaison between land owners, construction contractors, CA and CEIL. In Gujarat, SECON has established offices in Jamnagar, Rajkot, Viramgam, and Sanchole.

According to local authorities, CEIL staff, and landowners met by ECMG, the sums given for permanent acquisition have been generally higher than market value and no construction was started before compensation for the land was paid. First crop compensation was given at the actual time of entry and ground breaking. Further crop compensations are in place whenever pipeline work was not completed and land re-established for arable use before the next crop is due to be planted.

For the Upstream Project, a Grievances Redress Committee has been formed that includes representatives of the local administration, CEIL personnel, and the LAO. A log of all grievances is kept by LAO and CEIL. Land-losers have been classified using the criteria of the width of land surface taken by the Project with petty contracts and employment offered accordingly.

For the Midstream Project, complaints are addressed to the Competent Authority, which also keeps an updated log, as dictated by the Petroleum and Minerals Pipelines Act. Cellular phone numbers of the CA, SECON, and the construction contractors have been distributed to land-losers.

At the end of the pipeline construction, CEIL contractors are responsible for the reinstatement of the land. After reinstatement has been completed, a NOC is signed by the land owner stating that restoration has

been satisfactory. Signatures on NOCs are double-checked by CA staff on a random sample to ensure that they have not been counterfeited by contractors. Contracts are paid only when all relevant NOCs are submitted.

As established in the LACP monitoring framework (Section 7.8.2), and according to CEIL commitment to an Action Plan agreed with IFC, the Project has commissioned an External Independent Review of the Permanent Land Acquisition for the Mangala Development Project Phase II and IIA (ERM, May 2010). The review found a general satisfaction of land-losers with the land acquisition process and the handling of grievances and gave some recommendations including creating a database as a basis for monitoring the Project impacts and the effectiveness of the mitigation measures and managing expectation through proper communication strategy and increased consultations.

The Project has insofar completed a census of all land-losers and is preparing a community database that includes land-losers' details, CSR initiatives directed at individual and village level, and updated villages demographics.

The Project prepared a revised Rajasthan Framework LACP including annexes (Grievance Handling Mechanism, Planned Entry in RoU, Emergency Entry in RoU, Procedure to conduct panchnama, and minutes of relative disclosure workshops).

Observations:

The revised LACP presented by the Project is overall adequate as an updated LACP for the operations in the Gujarat portion of the Project (Pipeline or Midstream project). It includes the Salaya - Bhogat portion of the pipeline and the annexes describe the procedures for grievance and RoU entry, including the public workshop held to disclose the procedures. ECMG recommends (i) completing this document with the number of land owners affected by temporary and permanent land acquisition in Gujarat insofar; and, (ii) revising the title since the document does not include the Upstream (Rajasthan) project.

The Project should still present a LACP for the Rajasthan (Upstream Project) operation. The LACP should update the Rajasthan framework LACP, integrating the following information:

- the actual number of land owners affected by temporary and permanent land acquisition in Rajasthan;
- description of the Bhagyam and Aishwariya fields and the Salaya - Bhogat development in the text;
- the summary of the socio-economic baseline and impact assessment for the Bhagyam field (REIA); and
- the update of the grievance mechanism description following the most recent document published (April 2010).

ECMG recommends that the external annual audit established by the LACP be carried out for the Midstream portion of the pipeline.

<i>IFC and/or ESIA/EMP Policy Action Items</i>	
M5.6	Revise and disclose Upstream LACP for the operational phase (Modified)

Recommendations for Improvement:

- a. CEIL should revise the LACP for Gujarat (Midstream) as detailed in the text (include number of affected land owners and change the title); and
- b. CEIL should hire an independent consultant to carry out the external annual auditing of the land acquisition process in Gujarat as established by the LACP.

5.4 LABOR AND WORKING CONDITIONS

Project Strategy:

Cairn has a human resources policy and procedures, which comply with Indian national law, core International Labor Organization conventions, and IFC PS 2. These policy and procedures are documented in various ways throughout the organization and are available on the Cairn internet portal. Any new policy, directive, and/or procedure is communicated to all employees through individual e-mails and announced on the Cairn intranet portal.

During construction, the works have been subcontracted to several contractors who have an agreement with CEIL to recruit 70-80%, if available, of the needed unskilled labor from the local workforce and to make the best efforts to source skilled workers directly from the Gujarat and Rajasthan States. Among the available local workforce, members of land-losers families have been prioritized. CEIL office in Barmer has maintained a record, updated weekly, of all workers listed by land-loser status and provenance. A Grievance Committee for workers, comprising of four managers and four workers, was established in Mangala by the construction contractor (L&T).

At the time of the visit, all labor camps have been dismantled. All workers made redundant received allowances as per Indian law that entails one month of salary after a minimum of one year of work and an additional 15 days of salary for any 6-months period thereafter. L&T training and employment programs have been offered to those local workers able and willing to work in other L&T sites (62 local workers had 3-months training). According to L&T, around 30% of local workers have expressed the wish of following L&T activities elsewhere. The Project's policy states that land-losers are the last to lose their jobs when employment needs decrease and, whenever possible, they have been prioritized for employment during the operational phase. The number of local contracts for vehicle hiring is expected to decrease (from 250 to 80 and later to 40-50) but will be offered on a priority base to land losers and local people.

A Greenbelt Development Program is being developed around main Project facilities, as part of an overall environment compliance program, and is expected to engage 160 land-losers in Rajasthan.

CEIL is developing a number of initiatives to ensure that its operations offer the maximum benefit to the local population in terms of contracts and employment. These initiatives will also allow the Project to track the employment offer and the impact on communities.

- a Local Content Policy has been issued that mandates the engagement of a minimum of 60% locals (i.e. from local District), when available, with priority to land-losers and long term residents. CEIL also decided to impose a financial deterrent to the contractor (5% of contract value withholding of bank guarantee or final payment) and monthly reports to ensure local employment by contractors and establish compliance with the original commitment. To guarantee that all upcoming contracts comply with the policy, the Project has introduced the Local Content Policy to contractors at pre-bid meetings;
- the Enterprise Center organization in Barmer will include two new functions: (i) Local Vendor Development and (ii) Local Human Resources. A local vendor database is being developed and a system will check whether "genuine" local vendors and land-losers are engaged. The database will be further expanded through vendor seminars conducted at the EC and through a local vendor registration link under www.cairnindia.com/CorpResp that would also be assisted by EC Personnel. The Enterprise Center-based Local Vendor Development function will act as local content intelligence provider and auditor;
- a Community Database application with land-losers' details is about to be launched and would be bi-directionally linked to the Local Content centralized (SAP) application. This database will also cover CSR initiatives directed at individual and village level and will contain updated villages demographics. This tool would likely be used by the EC local human resources function to track all employment creation actions for each community and each project affected person.

Observations:

ECMG commends the issuing of the Local Content Policy and the other initiatives aimed at ensuring the maximum benefit to local population and land losers in term of employment and other economic opportunities.

ECMG recommends including counseling and advisory service for land losers and former local workers in the Enterprise Center programs. The services should provide advice on (i) how to invest compensations; and, (ii) how to maximize benefits of the working experience, acquire new skills, and apply for a new job.

IFC and/or ESIA/EMP Policy Action Items

Nil

Recommendations for Improvement:

- a. CEIL should include counseling and advisory service for land losers and former local workers in the Enterprise Center programs. The services should provide advice on (i) how to invest compensations; and, (ii) how to maximize benefits of the working experience, acquire new skills, and apply for a new job.

ANNEX A

**TRIP SUMMARY- 7TH MISSION BY D'APPOLONIA FOR THE RAJASTHAN
ON 90/1 BLOCK DEVELOPMENT AND
BARMER TO SALAYA PIPELINE PROJECTS, INDIA
JANUARY 2011**

For the seventh mission, one EHS specialist visited the Midstream portion of the Project while 2 EHS and one Social expert visited the Upstream facilities. Both projects are currently in the operational phase.

Midstream Project

January 9 – Mumbai: The EHS and Social team arrived in Mumbai.

January 10 – Mumbai – Viramgam/Jamnagar: The EHS expert traveled to Ahmedabad while the Social expert traveled to Jamnagar. The EHS expert visited the Sachana yard (L&T), the Gujarat Industrial Developing Corporation yard (L&T), and the spur line between the Viramgam terminal and the Indian Oil Corporation terminal.

January 11 – Jamnagar: The EHS specialist visited Wankaner yard (L&T), Dhrol yard (KSS), and the Chela camp and yard (PL).

Upstream Project

January 15 – Barmer: The ECMG team traveled to Barmer.

January 16 – Barmer: The ECMG team held a kick off meeting at Bhagyam camp. The social team attended a Science on Wheel event and visited the school library in Bothia, then held a meeting with land-losers. In the afternoon, the social team attended two more meetings with land losers and groups of women at Sutaro Ki Basti and Junejo Mehr Kibasti villages.

January 17 – Barmer: At the MPT the EHS experts visited the landfill, the former cement batch area, the new and old L&T labor camps at MPT, and the former truck loading area. Just south of MPT gate 1 the EHS team visited the former L&T open yard and the truck staging area. In the afternoon, an informal close out meeting was held at MPT. The social team visited the Punj-Lloyd camp for the trunk pipeline, discussed with the liaison officer, and then held meetings with land-losers at the villages of Rohili and Gaokeidi. In the afternoon, the social team met the new CSR staff. In the afternoon, an informal close out meeting was held at MPT.

January 18 –Delhi: The EHS and Social team traveled to Delhi.

Gurgaon

January 19 – Gurgaon: The team held meetings with CEIL management, reviewed available documents, and prepared the close out.

October 20 – Gurgaon: In the afternoon, a close out presentation was held by the ECMG at Cairn offices with the participation of Cairn management and high level staff he ECMG

January 21 – Gurgaon: The team departed from New Delhi.