

REPORT OF THE:

**EXTERNAL COMPLIANCE MONITORING
GROUP**

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

8th Site Audit: May 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
Stefano Robaudo	Team Leader, Environmental Science Specialist (present during the visit)
Andrea Gaviano	Environmental Specialist (present during the visit)
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: PROJECT ISSUES SUMMARY

FREQUENTLY USED ACRONYMS

AGI: Above Ground Installation
AP: Action Plan
CA: Competent Authority
CDF: Community Development Framework
CDS: Community Development Strategy
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
EMP: Environmental Management Plan
ESIA: Environmental and Social Impact Assessment
IFC: International Finance Corporation
LA: Land Acquisition
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
PS: Performance Standard
RoU: Right of Use
SRT: Stakeholder Relationship Team

INTRODUCTION

This report summarizes the Rajasthan Block (Upstream) and Barmer to Salaya pipeline (Midstream) Projects ("the Project") progress made during the first quarter of 2011 as submitted and/or verified 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). Information and data were acquired during the May 2011 ECMG visit (eighth monitoring).

The Project construction has been completed and is now in the operational phase. As outlined in the last Audit report (January 2011 - 7th site visit), in concert with Cairn Energy India Pty Limited (CEIL) and the Lenders, tracking of 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. Therefore, ECMG team's focus during this mission was to review the documentation submitted by CEIL in order to outline its commitments to the reforestation programme, to finalize and disclose its Community Development Strategy, and to revise and disclose its Public Consultation and Disclosure Plan (PCDP) and Land Acquisition and Compensation Plan (LACP). Since most of the EHS and Social issues related to this Project have been closed and/or are no longer relevant, given that construction activities have been completed, the current document will only provide an update on those issues that were pending since the last Audit report.

Overall, the 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 (e.g. camps/yard closure and Viramgam spur line) are now tracked under a specific section in the 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, 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 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.

In general, the Focus areas of the EHS reviews are the following:

- CEIL commitments to a reforestation programme;
- the second draft of CEIL Community Development Strategy;
- the draft of the Gujarat and Rajasthan Public Consultation and Disclosure Plans (PCDP); and
- the draft of the Gujarat and Rajasthan Land Acquisition and Compensation Plans (LACP).

During the field activities, D'Appolonia met CEIL management and key personnel to collect the missing documentation and/or to discuss its status and finalization.

A final closeout meeting was conducted at CEIL's Gurgaon offices on May 11th, 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, a 2.5 km, 10 inch, insulated but not heated single pipeline connecting CEIL Viramgam terminal to Indian Oil Corporation Ltd Terminal, that is currently under construction by L&T. The progress of this spur line is being reported under the Bhogat – Salaya audit report. Currently the Project is in the operational phase, which is not covered by the scope of this Audit. Therefore, the focus of this Audit report is to review the documentation submitted by CEIL in order to outline its commitments to the reforestation programme, to finalize and disclose its Community Development Strategy, and to revise and disclose its Public Consultation and Disclosure Plans (PCDP) and Land Acquisition and Compensation Plans (LACP) for Rajasthan (Upstream project) and Gujarat (Midstream project). These issues are commitments of CEIL that should have been developed by the Project during the construction phase and implemented during the operational phase.

Upstream – The Project, as part of the operational phase, will continue to analyze groundwater data from 12 established monitoring wells and to update its groundwater model to ensure extraction from the Thumbli field does not affect the local aquifer. A recent post monsoon (2010) campaign was conducted and results presented in a May 2011 report. The analysis of the collected data indicates that no change in the aquifer quality and only minor changes in the hydraulic head were recorded in the Thumbli aquifer.

During the ECMG January 2011, visit the few camps and yards still open were in the last stages of decommissioning and/or reinstatement. ECMG has received documentation on these yards/camps and can report that they have been closure/reinstatement according to Project commitment and in line with IFC and international standards. The reinstatement status of the old labor camp at MPT, which was decommissioned and returned to the landowner before the October 2010 visit was reported to be unchanged. This camp is still locked in a legal dispute between Larsen and Tubro and the land owner over the final reinstatement.

As outlined in the January 2011 report the Greenbelt plantation program is fully on-going at all Upstream and Midstream projects sites following the plan and commitments drafted by CEIL. Recently, CEIL has drafted its afforestation plan along the Barmer – Salaya pipeline where the Project has outlined the overall program framework indicating its financial and monitoring role in conjunction with the implementing functions of the local authorities (e.g. District Forest Departments, District collector, Panchayat). Overall, CEIL commits to a minimum planting effort of 120,000 trees of indigenous species during a three year period and covering 3 to 6 districts in Gujarat. The plan calls for a first stage (year 2011 – 2012) where three suitable sites for planting are identified and total budget for the program is approved and allocated.

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. Another CSR 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. The CSR human resources appear adequate in quantity and quality for the operation phase. The recently appointed staff rapidly came up to speed on their responsibility and demonstrated commitment and a remarkable quick uptake of project issues and approach.

In Rajasthan, CSR activities have been consolidated around the Enterprise Center (EC), based in Barmer. The EC, funded jointly by IFC and CEIL till December 2010 has been transformed in a non-profit entity directly managed by CEIL through a board comprising of eleven members from CEIL management. CEIL has recently signed a Memorandum of Understanding with the government that extended CEIL management of the centre for five years. 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 EC manager, based in Barmer, coordinates and supervises the CSR teams in Rajasthan and Gujarat.

ECMG acknowledges the dynamic and innovative approach of CEIL CSR, which is continuously trying to improve ongoing programs and find new opportunities. ECMG particularly commends the collaborative approach with public and private institutions and the effort to adapt programs to beneficiaries' needs and requests. In the Upstream and Midstream areas, projects related to health and education are implemented in collaboration with NGOs and relevant local government (Health van, training for doctors, school libraries, English relay program, etc.). Other programs are focused on livelihood improvement such as,

training for micro and small enterprise, home-based handicraft, dairy development, Rural Facilitation Centers, SMS-based Agriculture Information program, skills development, and entrepreneurship and local vendor development.

Moreover, 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 include the development of a database that would allow tracking all employment creation actions for each community and each project affected person. 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.

ECMG received and reviewed the second draft of the Community Development Framework for the whole Mangala Development Pipeline Project. The second draft takes into consideration a number of specific comments made by ECMG and IFC. However, ECMG recommends again extracting from this scoping document a separate corporate document (CEIL Community Development Strategy) with precise commitments to community investments. Detailed suggestions have been given to facilitate the finalization of the document.

ECMG reviewed CSR monthly reports. The reports present CSR activities, including CSR interventions to settle grievances. However, more information on the resolution of conflicts and the general progress in the relation with project affected people should be included. In addition, the monthly and cumulative number of interactions with stakeholders (by type of stakeholder) could be annexed to the report. In general, for all CSR activities, the monthly and cumulative achievement should be communicated. CSR management informed ECMG that a more structured monitoring system, including proper indicators, is in course of preparation. ECMG suggests that the system be related to the specific objectives identified in the upcoming Community Development Strategy.

As recommended in the previous ECMG report, the specific PCDPs for Rajasthan and Gujarat should be updated and revised to include the project's development (satellite fields) and extension (Salaya-Bhogat) and the operation phase. The drafts of PCDPs have been submitted by CEIL and reviewed by ECMG that, has provided a number of suggestions for improvement.

According to the competent authorities, CEIL staff, and land owners, the land acquisition process has been carried out properly and without major issues. These conclusions were confirmed by an External Independent Review carried out in May 2010, commissioned by the Project at the end of the land acquisition in Rajasthan. The review found a general satisfaction among land-losers with the land acquisition process and the handling of grievances, and gave a number of recommendations that are in course of being addressed by the Project. ECMG recommends that the external annual audit established by the LACP be carried out for the Midstream portion of the pipeline.

The Project prepared a revised Rajasthan Framework LACP including annexes (Grievance Handling Mechanism, Planned Entry in Right of Use (RoU), Emergency Entry in RoU, Procedure to conduct *panchnama*, and minutes of relevant disclosure workshops). As already noted in ECMG's previous report, the revised Rajasthan Framework LACP presented by the Project actually refers to Gujarat. The document is consequently adequate as the Gujarat framework LACP (Pipeline or Midstream project). ECMG recommends revising the title since the document does not refer to the Rajasthan portion of the Project.

However, the Project should still present a Rajasthan Framework LACP for the operation phase, which should refer to Rajasthan specifically

Table 1.1: FOLLOW-UP ISSUES

Mission/ Issue No.	IFC Policy / ESIA Compliance	Description	Status	Comments	Priority	Project
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)	Closed		N/A	Midstream
Social Management						
M5.4 (M1.40)	Action Plan – September 2009	Prepare, disclose, and implement a “Community Development Strategy”. (Modified)	Pending Repeated	A second draft of the Community Development Framework has been submitted by CEIL. CEIL should extract from this report a CEIL Community Development Strategy.	High	Upstream Midstream
Public Consultation and Communication						
M5.5	Cairn Rajasthan Framework PCDP 2008 §11	Revise and disclose the Rajasthan PCDP for the operational phase, for the Upstream Project. (Modified)	Pending - Repeated	To be amended as suggested.	High	Upstream
M5.6	Cairn Gujarat Framework PCDP 2008 §11	Revise and disclose the Gujarat PCDP for the operational phase, for the Midstream Projects. (Modified)	Pending - Repeated	To be amended as suggested.	High	Midstream
Land Acquisition						
M5.7	Cairn Rajasthan framework LACP §8	Revise and disclose the Rajasthan LACP for the operation phase, including lessons learned. (Modified)	Pending - Repeated	Amend on the basis of the Gujarat LACP, making reference to the Upstream project and Rajasthan specifically.	High	Upstream

EIGHTH SITE AUDIT OF THE D'APPOLONIA ECMG TO THE RAJASTHAN BLOCK AND BARMER TO SALAYA PIPELINE, INDIA, MAY 2011

1 CONSTRUCTION STATUS

The Project construction phase has been completed except for the Viramgam spur line, a 2.5 km, 10 inch, insulated but not heated single pipeline connecting CEIL Viramgam terminal to Indian Oil Corporation Ltd Terminal, that is currently under construction by L&T. The progress of this spur line is being reported under the Bhogat – Salaya audit report. Currently the Project is in the operational phase, which is not covered by the scope of this Audit.

2 ENVIRONMENT

2.1 MONITORING AND AIR QUALITY

Since May 2010 the Project monitoring for both the Upstream and Midstream Projects is designed and carried out focusing on operational activities.

2.2 GROUNDWATER AND SURFACE WATER

Upstream – The Project, as part of the operational phase, will continue to analyze groundwater data from 12 established monitoring wells and to update its groundwater model to ensure extraction from the Thumbli field does not affect the local aquifer. A recent post monsoon (2010) campaign was conducted and results presented in a May 2011 report. The analysis of the collected data indicates that no change in the aquifer quality has been recorded and only minor changes in the hydraulic head, likely due to seasonal variations, of the fresh water aquifer and at the interface of fresh and saline water have occurred. Overall, at this stage, withdrawals from the Thumbli field are not effecting the local fresh water aquifer.

IFC Policy Action and ESIA/EMP Policy Action Item

Nil

Recommendations for Improvement:

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

2.3 RECLAMATION AND REVEGETATION MANAGEMENT

The Project construction phase is completed. During the ECMG January 2011 visit the few camps and yards still open were in the last stages of decommissioning and/or reinstatement along with the construction of a short 10 inch spur line (2.5 km connecting the Viramgam terminal to a nearby Indian Oil Terminal). As outlined in the previous Audit report, in concert with Lenders and CEIL, details of the final closure of the above camps/yards (Kazstroy Service yard at Dhrol, the L&T yard at Sachana, and the Wankaner pipe yard) and the construction of the Viramgam spur line are provided under the Salaya – Bhogat Project Audit reports. However, ECMG has received documentation on these yards/camps and can report that they have been close/reinstated according to Project commitment and in line with IFC and international standards.

The reinstatement status of the old labor camp at MPT, which was decommissioned and returned to the landowner before the October 2010 visit was reported to be unchanged. This camp is still locked in a legal dispute between Larsen and Tubro and the land owner over the final reinstatement of the area with the Project wanting to demolish all permanent structures while the land owner wants to keep them for future use. As outlined in the January 2011 report, in the event Larsen and Tubro 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 on the property, the Project will carefully document what is being left on site. If any construction debris is being left at 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. It should be noted that this decommissioning

procedure was already been recommended by ECMG in previous reports for other sites and should be fully adopted by CEIL in all future projects.

The Greenbelt plantation program is fully on-going at all Upstream and Midstream projects sites following the plan and commitments drafted by CEIL. As outlined in the January 2011 report, a review of the greenbelt program documents by ECMG indicates that all the critical elements for a successful implementation are present. According to the information provided, contracts with individual land losers and/or farmers for the greenbelt development are in place or are being finalized at the majority (49 out of 53) of the Above Ground Installations (AGI). The Project is also tracking survival rates at each location with data indicating that, as expected, plants survival remain a challenge at the AGIs located in Rajasthan. In particular, AGIs 5 and 8 have barely any live plants (9 and 17 respectively).

As previously reported, the Project has also initiated a compensatory afforestation program to compensate for the trees felled during the construction of the pipeline. The first project, which includes participation with the local government, was implemented in the Banaskantha District of Gujarat as described in the October 2010 Audit report. Recently, CEIL has drafted its afforestation plan along the Barmer – Salaya pipeline where the Project has outlined the overall program framework indicating its financial and monitoring role in conjunction with the implementing functions of the local authorities (e.g. District Forest Departments, District collector, Panchayat). Overall, CEIL commits to a minimum planting effort of 120,000 trees of indigenous species during a three year period and covering 3 to 6 districts in Gujarat. The plan calls for a first stage (year 2011 – 2012) where three suitable sites for planting are identified and total budget for the program is approved and allocated. The following step (year 2012 – 2013) will be identification of an additional 3 suitable sites and commencing plantation of 60,000 trees at the previously selected sites. Finally (year 2013 – 2014), 60,000 trees will be planted at the new sites and monitoring progress of previously planted sites will initiate.

IFC and/or ESIA/EMP Policy Action Items

Nil

Recommendations for Improvement:

- a. The Project should carefully monitor survival rates at critical AGIs and, if necessary, revise its plantation procedures/policies to enhance survival rates and to achieve full development of the greenbelt at these facilities.

3 SOCIAL ISSUES

3.1 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) was recently increased and restructured. It now comprises of 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 Sanchoe, Viramgam, Radhanpur, Rajkot, Jamnagar, and Khambaliya. A CSR manager, based in Barmer, 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. ECMG recommended that the specific LACP and PCDP for

Rajasthan and Gujarat be updated and revised to cope with the Project's new developments (the Bhagyam and Aishwariya fields), extensions (Salaya-Bhogat pipeline), and the operation phase.

According to an agreement with IFC, a "Community Development Strategy" was required by June 2008. A number of documents were prepared by CEIL on the subject; however, they did not meet completely IFC expectations. In October 2010 CEIL hired a consultant to prepare a Community Development Framework (CDF), a comprehensive scoping document that synthesizes most of CEIL policies and practices and outlines sound recommendations, including best practices and methodologies. The document was reviewed and comments provided in the January 2011 ECMG report and by IFC. The document was considered adequate as a scoping framework. The main recommendation was to extract from this scoping document a separate corporate document with precise commitments to community investments (CEIL Community Development Strategy).

Observations:

The CSR human resources appear adequate in quantity and quality. The recently hired staff rapidly came up to speed on their responsibility and demonstrated commitment and a remarkable quick uptake of Project issues and approach.

ECMG has reviewed the second draft of the CDF for the whole Mangala Development Pipeline Project that takes into consideration a number of specific comments made by ECMG and IFC. However, ECMG recommends again extracting from this scoping document a corporate document with precise commitments to community investments: a separate document (CEIL Community Development Strategy) focused and explicit in defining Cairn's strategy and implementation plan, including:

- CEIL commitments with reference to community investments, approach, methodology and actions for implementation (drawing from already existing practices that have been successful and new proposed ones);
- a framework with clearly defined objectives, indicators and sound metrics to measure the overall outcomes of the strategy and of the specific community development activities; and
- the definition of time lines (a 3-5 year plan), staffing and budget.

As a suggestion, the Community Development Strategy should present the following content:

- Context: this section should describe the Project and its activities like the Project environmental and social impacts, the project affected people (including political, social, economic, cultural, demographics) and livelihood patterns (from the different baselines carried out), highlighting the different areas (Rajasthan and Gujarat) and different Project's impacts (oilfields, major facilities, pipeline) ;
- Stakeholder Analysis and Consultation: this section should identify and describe the beneficiary groups from the high level list of external stakeholders. The beneficiaries can be identified using a number of criteria – people directly affected by the pipeline construction activities, people that expect to benefit from the Project, people who live near the Project, vulnerable groups etc. Other stakeholders that CEIL is collaborating/will collaborate with and build partnerships during Project design and implementation should be identified – Non Governmental Organization (NGOs), the panchayats, governmental agencies etc. Describe consultations held so far and ongoing with stakeholders (including village surveys, needs assessments, ongoing meetings and community visits);
- Community Development Planning: this section should include a description of the process by which projects are identified and prioritized including the selection criteria used, listing methods/tools (including participatory tools) that have been/ will be used;
- Project Definition: in this section, CEIL should define its program, including focus areas (health, education, livelihood development, training etc.), the beneficiaries, and specific project descriptions. Objectives and expected outcomes should be defined both for the overall Community Development Program and for the specific sub-programs. The section should outline how CEIL selected activities according to the different Project's impacts (for example, pipeline and terminals) or different stakeholders' needs (farmers, fishermen) or different environments (for example, dairy development in Rajasthan is possible only in Southern area);

- Schedule and Budget: provide a schedule for implementation of projects including target dates. Describe the responsibilities for implementation and identify implementing partners. Provide details on project budgets and costs; and
- Monitoring and Evaluation: provide a description of the monitoring process that will be followed and a list of performance indicators that will be used to evaluate project implementation and success.

ECMG reviewed CSR monthly reports. These reports present CSR activities, including CSR interventions to settle grievances (in the section *Activities undertaken with other departments*). However, more information on the resolution of conflicts and the general progress with respect to Project affected people should be included. In addition, the monthly and cumulative number of interactions with stakeholders (by stakeholder type) could be annexed to the report. In general, for all CSR activities, the monthly and cumulative achievements should be communicated.

CSR management informed ECMG that a more structured monitoring system, including proper indicators, is being prepared. ECMG suggests that this system be tied to the specific objectives of the upcoming Community Development Strategy.

ECMG commends the implementation of the training in IFC PS to CEIL's and contractors' management in Rajasthan. ECMG recommends that such training be passed on by management to the respective teams.

IFC and/or ESIA/EMP Action Items

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

Recommendations for Improvement:

- a. CEIL should prepare a Community Development Strategy (CDS) on the basis of the CDF as described in the text;
- b. CEIL should improve reporting, as suggested; and
- c. CEIL should develop a monitoring and evaluation system based on logical framework and indicators for the overall community development program and the specific activities. The system should be related to the objectives outlined in the CDS.

3.2 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 Acquisition (LA) team, managing 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.) particularly in the Midstream project and in 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 until 2010, has also supported an Enterprise Center (EC) that provides technical assistance and training. Programs developed to date include: training for micro and small enterprise, a program designed for rural women in affected villages engaging them in home-based handicraft linked to market through textile contractors and key exporters; training program in agriculture, teaching farmers to grow new cash crops; and entrepreneurship and local vendor development. The training program is being revised with focus on quality and links to the technical education institutes present in the District. CSR staff is carrying out participatory needs assessment and resource mapping in communities to identify other opportunities of training and activities. A new activity is the Mobile Skill Training Van program, consisting of a van that goes in the villages and offer three months training in mechanics to male youth. After the training, the students have the opportunity to practice for one month at mechanical shops in Barmer (linked to the program) and be hired at the end of the period or be equipped to find employment elsewhere.

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 center, now renamed Cairn Enterprise Center (CEC), has been transformed in a non-profit entity, managed by the Governing Body that consists of 10 members including a President, a Vice President, a Secretary, and a Treasurer, to further strengthen the Community engagement portfolio and to create a platform for further linkages with different stakeholders.. CEIL has recently signed a Memorandum of Understanding with the Government of Rajasthan that extended CEIL management of the centre for five more years. The CEC has become the hub around which all CSR activities are organized. The CEC 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 CEC manager, based in Barmer, also coordinates and supervises the CSR teams in Rajasthan and Gujarat.

In Rajasthan, CEIL also initiated a cooperation with EMPOWER, a Government of Rajasthan's program funded by the International Fund for Agriculture Development (IFAD), a UN agency. In the context of this collaboration, ten different veterinary health camps were organized in February for ten villages in the Mangala and Bhagyam area. Other potential areas of collaboration were identified, such as support to agriculture through the use of improved technology and the supply of better seeds and fertilizers, Self-Help groups' mobilization, and skill training.

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, HIV/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. CEIL is also planning a five-year sponsorship of a girls' secondary school in Baitu (Rajasthan), including equipment and certified teachers.

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:

ECMG acknowledges the dynamic approach of CEIL CSR, which is continuously trying to improve on-going programs and find new opportunities. ECMG particularly commends the collaborative approach with public and private institutions and the effort to adapt programs to beneficiaries' needs and requests.

As recommended in the January 2011 ECMG report, the specific PCDPs for Rajasthan and Gujarat should be updated and revised to cope with the Project's development (Bhagyam and Aishwariya fields), extensions (Salaya-Bhogat pipeline), and the operation phase as established by the framework PCDP (Section 4.3). The drafts of the PCDPs have been submitted by CEIL and reviewed by ECMG, who has the following recommendations:

- Add a paragraph "Key Principles for Public Consultation and Disclosure" as in PCDP framework 2008 Section 1.1;
- Add a paragraph "Regulatory Framework for Consultation and Disclosure in India" as in PCDP framework 2008 Section 2.2;
- Mention social baselines and needs surveys carried out by the Project in Rajasthan and Gujarat and ongoing consultation activities;
- In Section 3.1 *Objectives of Public Consultation & Disclosure* modify first bullet as follows: "Provide local community and other stakeholders with regular information on the progress of the project activities and receive feedback";
- In Section 4.2.1 (*Internal monitoring mechanism*) add a bullet "Identification of any issues, especially for any vulnerable households, unresolved issues from Project-related activities" similar to Framework PCDP 2008;
- In Section 4.2.2 (*External monitoring system*) modify the first sentence as in Framework PCDP ("Rajasthan JV will engage an independent external organization to undertake audits of Project related to PCDP activities, as and when required");
- PCDPs should include the paragraph on the process for response to grievances (reference to Section 3.5.1 of Rajasthan Framework PCDP) specifying the lapse of time (30 days) for responding to queries and complaints. Furthermore, in Section 5.3 (*Grievance Redress Mechanism*), the PCDPs should mention the maximum delay of 15 days for acknowledging a grievance. Also include the process for appeal should resolution of a complaint not to be of satisfaction to the complainant;
- Add a table with a stakeholders identification/analysis such as the one in "Midstream Stakeholders Plan Draft for discussion", Word document dated 29/10/2009. In addition, the Project should add a detailed list of the current project stakeholders (i.e. names of the names etc.) which can be updated as new stakeholders are identified. This can be included in the annex; ; and
- Add a table such as Table 3.1 "Action Plan for Public Consultation and Disclosure" in Framework PCDP 2008;.
- The roles and responsibilities of the Stakeholder Relations Team, their interactions with the CSR team and involvement in the engagement process should be well defined and more detailed under the section "Stakeholder Engagement Team";

- The Project should explicitly outline the responsibilities of other teams – CSR and Land. The section on stakeholder consultation team states that now SRT is responsible whereas on the ground CSR/Land still undertake engagement activities. The Project should define the roles and responsibilities of all those involved;
- In page 7, Upstream PCDP under the thematic areas, the Project should include Capacity Building with Economic Development (i.e. Economic Development and Capacity Building);
- Under Information Request – include provisions for posting notices and announcements of availability of Project documentation when new documents are made available for the public;
- Include the frequency of meetings/engagement sessions for the local communities and surrounding villages similar to those identified for local authorities under Section Periodicity of Public Consultation. Change the title to Public Consultation Frequency;
- Language such as “would be” needs to be converted into a commitment. E.g. section 4.3 of the upstream PCDP. Language in both documents should be changed to reflect CEIL’s commitment;
- Quarterly reports on grievances should be issued and distributed to the Project team to ensure that future similar ones can be avoided and also share the lessons learned; and
- The Gujarat PCDP is incomplete – section missing.

IFC and/or ESIA/EMP Policy Action Items

M5.5 Revise Rajasthan PCDP for the operation phase, and disclose it.

M5.6 Revise Gujarat PCDP for the operation phase, and disclose it.

Recommendations for Improvement:

- a. CEIL should amend the draft PCDPs as suggested.

3.3 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 by temporary use, during the seismic exploration activities and construction, and by permanent land acquisition for the Upstream facilities and well pads, involving a relatively large number of small landowners. The acquisition process was executed through the national Land Acquisition Act procedure involving designated local administration official, namely the Land Acquisition Officer (LAO). The price for the land is determined by the LAO according to Government parameters, which CEIL increased substantially in order to ensure a fair compensation in line with market value.

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 returned to the landowners with some restrictions of its use. The acquisition process has been executed through the provisions of the Petroleum and Minerals Pipelines Act involving the appointment of a Competent Authority (CA) by the Government that determined the compensation rates. Barmer LAO acts as CA for RoU acquisition in the Rajasthan section of the pipeline. First crop compensation was given at the time of entry and ground breaking. Further crop compensations were in place whenever pipeline work was not completed and land re-established for arable use before the next crop was due to be planted.

Permanent land acquisition for all infrastructures related to the pipeline, namely the AGIs along the Barmer to Salaya RoU and the Viramgam, Radhanpur and Bhogat terminals, has been carried out through direct negotiation with the landowners, on a willing seller-willing buyer basis, at market rate.

A CEIL contractor, SECON Private Ltd., has been involved in facilitating the administrative process of the RoU acquisition and still collaborates with CA teams and CEIL LA team 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 Sanchores.

For the Upstream Project, a Grievances Redress Committee was established that includes representatives of the local administration, CEIL personnel, and the LAO. A log of all grievances is kept by LAO and CEIL.

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 Non Objection Certificate (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 the 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:

According to competent 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. CA and LAO acknowledge that the land acquisition process has been carried out properly and without major issues. These conclusions have been confirmed by an independent review (see above).

As already outlined in the ECMG January 2011 report, the revised Rajasthan Framework LACP presented by the Project actually refers to Gujarat. The document is consequently adequate as the Gujarat framework LACP (Pipeline or Midstream project). ECMG recommends revising the title since the document does not refer to the Rajasthan project.

The Project should still present a Rajasthan Framework LACP for the operational phase. In particular, the document should refer to Rajasthan specific issues and include the following information:

- the summary of Rajasthan Social Baseline (2004) and other updated data, including the Rapid Environmental Impact Assessment (2007); and
- the updated 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.

IFC and/or ESIA/EMP Policy Action Items

M5.7 Revise and disclose Rajasthan (Upstream) LACP for the operational phase (**Modified**)

Recommendations for Improvement:

- a. CEIL should rename the LACP for Gujarat (Midstream); 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.

3.4 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. Wages and other conditions are also posted on site in local languages.

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. Land-losers have been classified using the criteria of the width of land surface taken by the Project and are prioritized for petty contracts and employment accordingly. 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). Other workers' grievance committees were established in labour camps in Rajasthan and Gujarat.

At the end of construction, 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 a 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 in India. 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 CEC 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 CEC and through a local vendor registration link under www.cairnindia.com/CorpResp. Vendors' registration will also be possible through direct assistance by CEC Personnel. The Cairn 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 CEC 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 Cairn 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.

<i>IFC and/or ESIA/EMP Policy Action Items</i>
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Nil

Recommendations for Improvement:

- a. CEIL should include counseling and advisory service for land losers and former local workers in the Cairn 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
PROJECT ISSUES SUMMARY

PROJECT ISSUES SUMMARY

The following table summarizes all the issues, related to the Rajasthan ON-90/1 Block Development and Barmer to Salaya Pipeline Projects, identified during all the Audit missions conducted by ECMG. Mission issues are organized with reference to the ID numbers as presented in the reports (document reference 08-497-H1 to 08-497-H8). The issue type (e.g. EHS Management, Air quality, etc.), together with its description, is summarized in the table along with the priority level, indicated by a color bar outlined in the legend below, assigned in the relative Audit report.












PROJECT ISSUES SUMMARY

Mission Issue No.	Issue Type	Description	1st Mission Nov 2008	2nd Mission March 2009	3rd Mission July 2009	4th Mission Nov 2009	5th Mission Jun 2010	6th Mission Oct 2010	7th Mission Jan 2011	8th Mission May 2011
M1.1	EHS Management	CEIL needs to urgently finalize the Contractor Management Plan.								
M1.2	EHS Management	L&T and IOT should develop and implement project specific SOP as soon as possible.								
M1.3	EHS Management	Additional CEIL EHS supervisors to be hired in order to cover increasing Upstream activities.								
M1.4	EHS Management	L&T and IOT field supervisors should be more experienced and pro-active to ensure constant coaching of an inexperienced work force.								
		Modified on March 2009 - 2nd Mission: L&T and IOT field supervisors should continue their training and pro-active attitude in the field. Supervision and on-field training by Cairn experienced personnel is still required to ensure project standards.								
		Modified on November 2009 - 4th Mission: L&T and IOT field supervisors should continue their training and pro-active attitude in the field. Supervision and on-field training by Cairn experienced personnel is still required to ensure project HS standards are met.								
		Modified on June 2010 - 5th Mission: CEIL should continue to ensure that continuous training and pro-active attitude in the field is ensured during the very final stages of construction. Supervision and on-field training by Cairn experienced personnel is still required to ensure project HS standards are met.								
		Modified on October 2010 - 6th Mission: 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.								
M1.5	Air Quality	DG stacks heights should be checked to avoid excessive ground level concentrations.								







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Mission Issue No.	Issue Type	Description	1st Mission Nov 2008	2nd Mission March 2009	3rd Mission July 2009	4th Mission Nov 2009	5th Mission Jun 2010	6th Mission Oct 2010	7th Mission Jan 2011	8th Mission May 2011
M1.6 M4.1	Air Quality	Dust control measures (e.g. regular watering of the ground, soil pile covering) should be implemented at all Upstream and Midstream project facilities to abate RPM.								
M1.7	Air Quality	Air quality monitoring should be started at all project facilities.								
M1.8	Groundwater and surface water	The project should not impact local water resources especially in the Upstream project and in the northern part of the Midstream project. Therefore, the Project should objectively verify, and closely monitor, that current water provision practices do not directly or indirectly affect the local suppliers and/or communities.								
		Modified on July 2009 – 3rd Mission: The project should complete the study of the impacts on the local groundwater regime at all abstraction locations to ensure that current and projected project water needs do not directly or indirectly affect the local suppliers and/or communities.								
M1.9	Monitoring	A comprehensive monitoring program for air, noise, water and soil should be started at all Project sites.								
M1.10	Reclamation, Revegetation, and Topsoil Management	Thorough topsoil stripping has to be implemented at all sites.								
M1.11	Reclamation, Revegetation, and Topsoil Management	Topsoil preservation measures should be implemented in particular for those areas where reinstatement times may be long.								
		Modified on July 2009 – 3rd Mission: Top soil preservation measures should be implemented by the Midstream project in particular for those areas where reinstatement times are foreseen to take longer than expected.								
M1.12	Reclamation, Revegetation, and Topsoil Management	Overall tally of the cut trees should be kept by each project and kept updated as on-going activities are progressing.								

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Mission Issue No.	Issue Type	Description	1st Mission Nov 2008	2nd Mission March 2009	3rd Mission July 2009	4th Mission Nov 2009	5th Mission Jun 2010	6th Mission Oct 2010	7th Mission Jan 2011	8th Mission May 2011
M1.13	Reclamation, Revegetation, and Topsoil Management	The Upstream greenbelt program should be implemented as soon as possible in light of the difficulties of plant development due to the arid regional climate.								
M1.14	Waste	Review the overall waste management practice from waste segregation/recycling to final disposal for both Upstream and Midstream Projects.								
M1.15	Waste	Conduct formal EHS audits of the off-site waste disposal facilities and waste management contractors used by both Upstream and Midstream Projects to ensure they fulfil project and IFC requirements.								
M1.16	Waste	Discontinue the use of the Barmer and Virangam dumping sites for disposal of Project waste, strengthen the waste segregation practice, provide a Central Waste Accumulation Area at the MPT, and finalize the construction of the project landfill.								
M1.17	Waste	At the Mangala labour camp, the STP should be made operational as soon as possible to guarantee proper treatment of all waste water generated by the MPT and associated facilities. Ensure there is no offsite wastewater disposal.								
M1.18	Waste	Develop and improve, where already in place, the waste tracking system and maintain a proper hazardous and non-hazardous waste register to accurately reflect amounts of waste generated and its ultimate disposal facilities.								
M1.19	Waste	Significantly review the overall strategy for waste management for both Upstream and Midstream Projects to reflect in the field the "theory" included in the Contractors Environmental Management Plans.								
M1.20	Waste	Both L&T and IOT should develop specific Comprehensive Waste Management Plans to identify waste streams, and suitable, realistic, and project-tailored procedures for waste collection, handling and final disposal.								

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Mission Issue No.	Issue Type	Description	1st Mission Nov 2008	2nd Mission March 2009	3rd Mission July 2009	4th Mission Nov 2009	5th Mission Jun 2010	6th Mission Oct 2010	7th Mission Jan 2011	8th Mission May 2011
M1.21	Waste	Develop Central Waste Accumulation Areas at each camp and Terminal site to collect and temporarily store all wastes associated to the Project construction phase. Modified on November 2009 – 4th Mission: Improve the conditions of the Central Waste Accumulation Area at the Sanchore camp.								
M1.22	Waste	Put on fast track the construction of the project landfill at the MPT and identify a suitable solution for the final disposal of hazardous and non-hazardous waste associated with the Midstream Project. Modified on July 2009 – 3rd Mission: Put on fast track the construction of the project landfill at the MPT and identify a suitable solution for the final disposal of hazardous and non-hazardous waste associated with the Midstream Project (Chela and PL Radhanpur camps).								
M1.23	Waste	Develop and improve, where already in place, the waste tracking system and maintain a proper hazardous and non-hazardous waste inventory to accurately reflect amounts of waste generated and their ultimate disposal facilities.								
M1.24	Haz material	L&T and IOT should expedite the finalization of specific plans and procedures related to the management of hazardous materials.								
M1.25	Haz material	All diesel generators locations and fuel/lubricant storage areas should be provided with concrete floor, proper drains, and located in secured, fenced areas. Modified on July 2009 – 3rd Mission: All diesel generators locations and fuel/lubricant storage areas should be provided with concrete floor, proper drains.								
M1.26	Haz material	Develop Central Waste Accumulation Areas at each camp and Terminal site to collect and temporarily store all hazardous material used during the Project construction phase.								
M1.27	RoW management	Safety fences and/or other methods to prevent people or animals from falling into open trenches should be installed at all sensitive locations.								

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Mission Issue No.	Issue Type	Description	1st Mission Nov 2008	2nd Mission March 2009	3rd Mission July 2009	4th Mission Nov 2009	5th Mission Jun 2010	6th Mission Oct 2010	7th Mission Jan 2011	8th Mission May 2011
M1.28 M4.7	RoW management	Stringed pipe should be always provided with end-of-pipe caps when no work in on-going.								
M1.29	Health & Safety	Sufficient fresh air and dust controls should be implemented in those areas where cement bags or diesel drums are stored.								
M1.30	Haz material	The Project should ensure that inductions are carried out at each work site in a consistent and standardized way.								
M3.11		Reopened and modified on July 2009 – 3rd Mission: The Project should ensure that inductions are carried out at each work site in a consistent and standardized way and covering key issues pertinent to the audience.								
M1.31	Health & Safety	All accommodations/offices trailer should be provided with smoke detectors and alarm systems.								
M1.32	Health & Safety	Better field incident logs should be kept at field sites.								
M1.33	Health & Safety	All work related incidents should be logged by the subcontractor and reported to management.								
		Modified on March 2009 – 2nd Mission: All work related incidents, in particular medium grade injuries, should be logged by the subcontractor and reported to management.								
M1.34	Health & Safety	Portable toilets should be made available at those sites where there is a considerable presence of workers or, like at AGIs, where activities are expected to be on-going for some time.								
M1.35	Health & Safety	Use of wood fuel for cooking should be stopped at all Project sites.								
M1.36	Social management	Regularly prepare a social management report including all social aspects.								
M1.37	Public consultation	Contractors should establish a liaison person for community interactions and grievances at each campsite.								

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Mission Issue No.	Issue Type	Description	1st Mission Nov 2008	2nd Mission March 2009	3rd Mission July 2009	4th Mission Nov 2009	5th Mission Jun 2010	6th Mission Oct 2010	7th Mission Jan 2011	8th Mission May 2011
M1.38	Public consultation	Keep tabulated records of all community interactions and prepare a progress report (quarterly or monthly during construction phase).								
M1.39	Public consultation	Establish regular information meetings at village level and ensure outreach of all groups, including those not involved in development activities. Modified on July 2009 – 3rd Mission: Establish regular information meetings at village level answering to concerns and questions raised by communities and farmers along the pipeline and presenting the company's strategy of stakeholders' engagement. Ensure outreach of all groups, including women and landless.								
M1.40	Community development	Prepare a "Community Development Strategy Framework Plan" for the pipeline route. Modified on June 2010 – 5th Mission: Prepare, disclose and implement a "Community Development Strategy" (repeated M5.4).								
M1.41	Land acquisition	Brief key personnel involved with land acquisition on IFC PS and LACP/PCDP and maintain a copy in local offices in local languages.								
M1.42	Land acquisition	Keep tabulated records of all grievances and meetings and prepare a progress report (quarterly until the end of the land acquisition process). Modified on July 2009 – 3rd Mission: Implement the monitoring mechanism described in the LACP, including the preparation of a quarterly LA report.								
M1.43	Community H&S and Security	Include programs on H&S, environment and HIV-AIDS awareness in communication.								
M1.44	Community H&S and Security	Use school programs to build safety awareness amongst children.								
M1.45	Community H&S and Security	Monitor and assess more closely local needs for pipeline crossing.								
M1.46	Labor and working conditions	Brief Cairn HR and contractors on IFC PS 2.								

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Mission Issue No.	Issue Type	Description	1st Mission Nov 2008	2nd Mission March 2009	3rd Mission July 2009	4th Mission Nov 2009	5th Mission Jun 2010	6th Mission Oct 2010	7th Mission Jan 2011	8th Mission May 2011
M1.47	Labor and working conditions	Prepare a manual for employees on Cairn India employment conditions and HR policy, in English and Hindi, and include into the agreement with contractors. Brief local workers in their own language on employment conditions and their rights.								
M1.48	Labor and working conditions	Develop a transparent procedure for recruitment of land-losers and local workers and improve communication on criteria for wages.								
M1.49	Labor and working conditions	Improve living conditions and accommodations, particularly in reference to health risks and include these standards in the contractors' management plan.								
M1.50	Labor and working conditions	Ensure adequate grievance procedure for workers, with dedicated staff/representative of workers, and establish labor camps management committee with representatives from workers, contractors and Cairn and medical doctor.								
M1.51	Cultural Heritage	Provide IFC with a copy of the Chance Find procedures.								
M1.52	Cultural Heritage	Brief all staff including contractors on Chance Find procedures.								
M2.1	Groundwater and surface water	The project should complete a comprehensive plan for the sourcing of hydro-testing water in order to minimize, predict, and properly manage water needs for this activity.								
M2.2	Reclamation, Revegetation, and Topsoil Management	Full site reinstatement activities should be implemented right after decommissioning.								
M2.3	Waste management	Discontinue the use of the Jamnagar landfill for disposal of Project waste and wastewater.								
M2.4	Waste management	Develop a realistic plan to manage and dispose of surplus excavated material along the RoU.								
M2.5	Haz material	Areas where vehicle maintenance is performed should be paved and bermed.								

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Mission Issue No.	Issue Type	Description	1st Mission Nov 2008	2nd Mission March 2009	3rd Mission July 2009	4th Mission Nov 2009	5th Mission Jun 2010	6th Mission Oct 2010	7th Mission Jan 2011	8th Mission May 2011
M2.6	Haz material	Sites where hazardous material is stored should be provided with a dedicated, paved, bermed and covered storage area.								
M2.7	Haz material	Hazardous material should always be stored in designated areas.								
M2.8	RoW management	The amount of open trench should be kept to a minimum with backfilling operations as close behind as practical.								
M2.9	RoW management	Pipeline construction work during the rainy season should be avoided.								
M2.10	RoW management	Environmental mitigation measures and plans, along with technical details, should be developed before any river crossing work is initiated.								
M2.11	RoW management	Quarry material should be sourced from registered suppliers from approved and designated quarries only.								
M2.12	Labor and working conditions	CEIL should ensure that sub-contractors have a non discriminatory wage policy.								
M2.13	Labor and working conditions	Prepare a re-engagement plan for local workers who will be laid off at the end of the construction phase.								
M3.1	EHS Management	KSS and PL should develop task specific SOP as soon as possible.								
M3.2	EHS Management	CEIL may need to increase the presence of trained EHS supervisors and technical professionals to ensure that both technical and EHS project standards are fulfilled during the expected increased construction activities after the monsoon season.								
M3.3	Groundwater and surface water	The project should put on fast track the hydrogeological studies at potential hydro-test water source locations to ensure there are no negative short/medium/long range impacts on the local hydrogeology and therefore they are suitable for water abstraction.								

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Mission Issue No.	Issue Type	Description	1st Mission Nov 2008	2nd Mission March 2009	3rd Mission July 2009	4th Mission Nov 2009	5th Mission Jun 2010	6th Mission Oct 2010	7th Mission Jan 2011	8th Mission May 2011
M3.4	Reclamation, Revegetation, and Topsoil Management	Reinstatement should be carefully carried out to fully restore the area to its previous, pre-construction conditions.								
M3.5	Waste management	The project should terminate the use of the Radhanpur municipal landfill and immediately find suitable solution(s), in line with project and IFC standards, for the disposal of the PL Radhanpur camp waste.								
M3.6	Waste management	Future project camps, if necessary should be commissioned in compliance with all Project and IFC standards.								
M3.7	Waste management	The project should not consider the option of spreading the material on barren land even with the authorization of the local authorities as this practice is in conflict with IFC PS3 item 9 general principles.								
M3.8	Haz material	Temporary production tank at the Train-1 station should be provided with secondary containment.								
M3.9	Health & Safety	Critical areas at the PL Radhanpur camp should be paved and/or provided with walkways.								
M3.10	Health & Safety	The PL Radhanpur camp shower discharge system should be revised to avoid stagnant water near the camp grounds.								
M3.12	Social management	Provide sufficient management sponsorship and human and financial resources on an ongoing basis to achieve effective and continuous social performance.								
M3.13	Land acquisition	Involve CSR team to work in close coordination with the Manager Land Acquisition in identifying and directing the socio-economic development programs benefit the land losers and the community at large in the villages affected by the land acquisition.								
M3.14	Land acquisition	Carry out regular community consultations to ensure that community makes an informed participation in the rehabilitation assistance and the community development programmes.								

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M4.2	Air Quality	The Project should carry out hydrogeological studies at new, if any, hydro-test water source locations to ensure there are no negative short/medium/long range impacts on the local hydrogeology and therefore they are suitable for water abstraction.								
M4.3	Air Quality	The Project should not discharge hydro-test water in the environment before test analysis have confirmed that no exceedances are present.								
M4.4	Reclamation, Revegetation, and Topsoil Management	The Project should work closely with the social team to ensure that accepted reinstatement practices (RoU, river crossing, rocky waste disposal), and any deviances because of specific requests from the landowners, are fully understood by the interested party(s) and are thoroughly documented (e.g. written and photographic documentations).								
M4.5	Reclamation, Revegetation, and Topsoil Management	The Project should develop a sound methodology to track, assess, and quantify the development of each greenbelt area so that any potential issues could be readily identified and corrective measures, if necessary, implemented.								
M4.6	Waste management	Verify and clarify the sewage line and septic tank location at Essar labor camp.								
M4.8	Health & Safety	Safety fences and/or other methods to prevent people or animals from falling into open trenches should be installed at all sensitive locations (repeated M1.27).								
M4.9	Health & Safety	The Project should clearly indicate if gas masks are required to be used by loading personnel or provide supporting evidences that they are not necessary at this loading facility.								
M4.10	Land acquisition	Conduct an independent review or audit of the permanent land acquisition required for the northern field(s) development project of the Rajasthan Block.								

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Mission Issue No.	Issue Type	Description	1st Mission Nov 2008	2nd Mission March 2009	3rd Mission July 2009	4th Mission Nov 2009	5th Mission Jun 2010	6th Mission Oct 2010	7th Mission Jan 2011	8th Mission May 2011
M5.1	Groundwater and surface water	Groundwater data indicates that the percentage rate change of groundwater resource for the last three years show a constant declining trend. Although no abrupt or anomalous change has been observed during the construction phase, there are clear evidences that current abstraction rates are far in excess of normal recharge in the area near the MPT.								
M5.2	Reclamation, Revegetation, and Topsoil Management	The Project should finalize its forestation compensatory projects and/or other initiatives so that it can start implementation and therefore fulfill its project commitments. Modified on October 2010 - 6th Mission: 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.								
M5.3	Health & Safety	The Project should strongly implement all HS requirements (e.g. gas masks and wheel blocks) at the truck loading facility.								
M5.4	Social management	Prepare, disclose and implement a "Community Development Strategy" (repeated M1.40).								
M5.5	Public consultation	Revise and disclose a PCDPs for the operational phase, including lessons learned. Modified on October 2010 – 6th Mission: Revise and disclose PCDPs for the operational phase, for the Upstream and Midstream Projects.								
M5.6	Land acquisition	Revise and disclose Upstream and Midstream LACP for the operation phase, including lessons learned. Modified on January 2011 – 7th Mission: Revise and disclose Upstream LACP for the operation phase, including lessons learned.								

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Mission Issue No.	Issue Type	Description	1st Mission Nov 2008	2nd Mission March 2009	3rd Mission July 2009	4th Mission Nov 2009	5th Mission Jun 2010	6th Mission Oct 2010	7th Mission Jan 2011	8th Mission May 2011
M6.1	Reclamation, Revegetation, and Topsoil Management	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.								
M6.2	Reclamation, Revegetation, and Topsoil Management	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.								
M6.3	Reclamation, Revegetation, and Topsoil Management	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).								
M6.4	Reclamation, Revegetation, and Topsoil	The Project should provide details on issued contracts for the development of the greenbelt at all terminals and AGIs.								
M6.5	Health & Safety	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.								

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M1.1	EHS Management	CEIL needs to urgently finalize the Contractor Management Plan.								
M1.2	EHS Management	L&T and IOT should develop and implement project specific SOP as soon as possible.								
M1.3	EHS Management	Additional CEIL EHS supervisors to be hired in order to cover increasing Upstream activities.								
M1.4	EHS Management	L&T and IOT field supervisors should be more experienced and pro-active to ensure constant coaching of an inexperienced work force.								
		Modified on March 2009 - 2nd Mission: L&T and IOT field supervisors should continue their training and pro-active attitude in the field. Supervision and on-field training by Cairn experienced personnel is still required to ensure project standards.								
		Modified on November 2009 - 4th Mission: L&T and IOT field supervisors should continue their training and pro-active attitude in the field. Supervision and on-field training by Cairn experienced personnel is still required to ensure project HS standards are met.								
		Modified on June 2010 - 5th Mission: CEIL should continue to ensure that continuous training and pro-active attitude in the field is ensured during the very final stages of construction. Supervision and on-field training by Cairn experienced personnel is still required to ensure project HS standards are met.								
		Modified on October 2010 - 6th Mission: 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.								
M1.5	Air Quality	DG stacks heights should be checked to avoid excessive ground level concentrations.								



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M1.6 M4.1	Air Quality	Dust control measures (e.g. regular watering of the ground, soil pile covering) should be implemented at all Upstream and Midstream project facilities to abate RPM.								
M1.7	Air Quality	Air quality monitoring should be started at all project facilities.								
M1.8	Groundwater and surface water	<p>The project should not impact local water resources especially in the Upstream project and in the northern part of the Midstream project. Therefore, the Project should objectively verify, and closely monitor, that current water provision practices do not directly or indirectly affect the local suppliers and/or communities.</p> <p>Modified on July 2009 – 3rd Mission: The project should complete the study of the impacts on the local groundwater regime at all abstraction locations to ensure that current and projected project water needs do not directly or indirectly affect the local suppliers and/or communities.</p>								
M1.9	Monitoring	A comprehensive monitoring program for air, noise, water and soil should be started at all Project sites.								
M1.10	Reclamation, Revegetation, and Topsoil Management	Thorough topsoil stripping has to be implemented at all sites.								
M1.11	Reclamation, Revegetation, and Topsoil Management	<p>Topsoil preservation measures should be implemented in particular for those areas where reinstatement times may be long.</p> <p>Modified on July 2009 – 3rd Mission: Top soil preservation measures should be implemented by the Midstream project in particular for those areas where reinstatement times are foreseen to take longer than expected.</p>								
M1.12	Reclamation, Revegetation, and Topsoil Management	Overall tally of the cut trees should be kept by each project and kept updated as on-going activities are progressing.								

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M1.13	Reclamation, Revegetation, and Topsoil Management	The Upstream greenbelt program should be implemented as soon as possible in light of the difficulties of plant development due to the arid regional climate.								
M1.14	Waste	Review the overall waste management practice from waste segregation/recycling to final disposal for both Upstream and Midstream Projects.								
M1.15	Waste	Conduct formal EHS audits of the off-site waste disposal facilities and waste management contractors used by both Upstream and Midstream Projects to ensure they fulfil project and IFC requirements.								
M1.16	Waste	Discontinue the use of the Barmer and Virangam dumping sites for disposal of Project waste, strengthen the waste segregation practice, provide a Central Waste Accumulation Area at the MPT, and finalize the construction of the project landfill.								
M1.17	Waste	At the Mangala labour camp, the STP should be made operational as soon as possible to guarantee proper treatment of all waste water generated by the MPT and associated facilities. Ensure there is no offsite wastewater disposal.								
M1.18	Waste	Develop and improve, where already in place, the waste tracking system and maintain a proper hazardous and non-hazardous waste register to accurately reflect amounts of waste generated and its ultimate disposal facilities.								
M1.19	Waste	Significantly review the overall strategy for waste management for both Upstream and Midstream Projects to reflect in the field the "theory" included in the Contractors Environmental Management Plans.								
M1.20	Waste	Both L&T and IOT should develop specific Comprehensive Waste Management Plans to identify waste streams, and suitable, realistic, and project-tailored procedures for waste collection, handling and final disposal.								

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M1.21	Waste	Develop Central Waste Accumulation Areas at each camp and Terminal site to collect and temporarily store all wastes associated to the Project construction phase. Modified on November 2009 – 4th Mission: Improve the conditions of the Central Waste Accumulation Area at the Sanchore camp.								
M1.22	Waste	Put on fast track the construction of the project landfill at the MPT and identify a suitable solution for the final disposal of hazardous and non-hazardous waste associated with the Midstream Project. Modified on July 2009 – 3rd Mission: Put on fast track the construction of the project landfill at the MPT and identify a suitable solution for the final disposal of hazardous and non-hazardous waste associated with the Midstream Project (Chela and PL Radhanpur camps).								
M1.23	Waste	Develop and improve, where already in place, the waste tracking system and maintain a proper hazardous and non-hazardous waste inventory to accurately reflect amounts of waste generated and their ultimate disposal facilities.								
M1.24	Haz material	L&T and IOT should expedite the finalization of specific plans and procedures related to the management of hazardous materials.								
M1.25	Haz material	All diesel generators locations and fuel/lubricant storage areas should be provided with concrete floor, proper drains, and located in secured, fenced areas. Modified on July 2009 – 3rd Mission: All diesel generators locations and fuel/lubricant storage areas should be provided with concrete floor, proper drains.								
M1.26	Haz material	Develop Central Waste Accumulation Areas at each camp and Terminal site to collect and temporarily store all hazardous material used during the Project construction phase.								
M1.27	RoW management	Safety fences and/or other methods to prevent people or animals from falling into open trenches should be installed at all sensitive locations.								

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M1.28 M4.7	RoW management	Stringed pipe should be always provided with end-of-pipe caps when no work in on-going.								
M1.29	Health & Safety	Sufficient fresh air and dust controls should be implemented in those areas where cement bags or diesel drums are stored.								
M1.30	Haz material	The Project should ensure that inductions are carried out at each work site in a consistent and standardized way.								
M3.11		Reopened and modified on July 2009 – 3rd Mission: The Project should ensure that inductions are carried out at each work site in a consistent and standardized way and covering key issues pertinent to the audience.								
M1.31	Health & Safety	All accommodations/offices trailer should be provided with smoke detectors and alarm systems.								
M1.32	Health & Safety	Better field incident logs should be kept at field sites.								
M1.33	Health & Safety	All work related incidents should be logged by the subcontractor and reported to management.								
		Modified on March 2009 – 2nd Mission: All work related incidents, in particular medium grade injuries, should be logged by the subcontractor and reported to management.								
M1.34	Health & Safety	Portable toilets should be made available at those sites where there is a considerable presence of workers or, like at AGIs, where activities are expected to be on-going for some time.								
M1.35	Health & Safety	Use of wood fuel for cooking should be stopped at all Project sites.								
M1.36	Social management	Regularly prepare a social management report including all social aspects.								
M1.37	Public consultation	Contractors should establish a liaison person for community interactions and grievances at each campsite.								

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M1.38	Public consultation	Keep tabulated records of all community interactions and prepare a progress report (quarterly or monthly during construction phase).								
M1.39	Public consultation	Establish regular information meetings at village level and ensure outreach of all groups, including those not involved in development activities. Modified on July 2009 – 3rd Mission: Establish regular information meetings at village level answering to concerns and questions raised by communities and farmers along the pipeline and presenting the company's strategy of stakeholders' engagement. Ensure outreach of all groups, including women and landless.								
M1.40	Community development	Prepare a "Community Development Strategy Framework Plan" for the pipeline route. Modified on June 2010 – 5th Mission: Prepare, disclose and implement a "Community Development Strategy" (repeated M5.4).								
M1.41	Land acquisition	Brief key personnel involved with land acquisition on IFC PS and LACP/PCDP and maintain a copy in local offices in local languages.								
M1.42	Land acquisition	Keep tabulated records of all grievances and meetings and prepare a progress report (quarterly until the end of the land acquisition process). Modified on July 2009 – 3rd Mission: Implement the monitoring mechanism described in the LACP, including the preparation of a quarterly LA report.								
M1.43	Community H&S and Security	Include programs on H&S, environment and HIV-AIDS awareness in communication.								
M1.44	Community H&S and Security	Use school programs to build safety awareness amongst children.								
M1.45	Community H&S and Security	Monitor and assess more closely local needs for pipeline crossing.								
M1.46	Labor and working conditions	Brief Cairn HR and contractors on IFC PS 2.								

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M1.47	Labor and working conditions	Prepare a manual for employees on Cairn India employment conditions and HR policy, in English and Hindi, and include into the agreement with contractors. Brief local workers in their own language on employment conditions and their rights.								
M1.48	Labor and working conditions	Develop a transparent procedure for recruitment of land-losers and local workers and improve communication on criteria for wages.								
M1.49	Labor and working conditions	Improve living conditions and accommodations, particularly in reference to health risks and include these standards in the contractors' management plan.								
M1.50	Labor and working conditions	Ensure adequate grievance procedure for workers, with dedicated staff/representative of workers, and establish labor camps management committee with representatives from workers, contractors and Cairn and medical doctor.								
M1.51	Cultural Heritage	Provide IFC with a copy of the Chance Find procedures.								
M1.52	Cultural Heritage	Brief all staff including contractors on Chance Find procedures.								
M2.1	Groundwater and surface water	The project should complete a comprehensive plan for the sourcing of hydro-testing water in order to minimize, predict, and properly manage water needs for this activity.								
M2.2	Reclamation, Revegetation, and Topsoil Management	Full site reinstatement activities should be implemented right after decommissioning.								
M2.3	Waste management	Discontinue the use of the Jamnagar landfill for disposal of Project waste and wastewater.								
M2.4	Waste management	Develop a realistic plan to manage and dispose of surplus excavated material along the RoU.								
M2.5	Haz material	Areas where vehicle maintenance is performed should be paved and bermed.								

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M2.6	Haz material	Sites where hazardous material is stored should be provided with a dedicated, paved, bermed and covered storage area.								
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M2.11	RoW management	Quarry material should be sourced from registered suppliers from approved and designated quarries only.								
M2.12	Labor and working conditions	CEIL should ensure that sub-contractors have a non discriminatory wage policy.								
M2.13	Labor and working conditions	Prepare a re-engagement plan for local workers who will be laid off at the end of the construction phase.								
M3.1	EHS Management	KSS and PL should develop task specific SOP as soon as possible.								
M3.2	EHS Management	CEIL may need to increase the presence of trained EHS supervisors and technical professionals to ensure that both technical and EHS project standards are fulfilled during the expected increased construction activities after the monsoon season.								
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M4.5	Reclamation, Revegetation, and Topsoil Management	The Project should develop a sound methodology to track, assess, and quantify the development of each greenbelt area so that any potential issues could be readily identified and corrective measures, if necessary, implemented.								
M4.6	Waste management	Verify and clarify the sewage line and septic tank location at Essar labor camp.								
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M4.9	Health & Safety	The Project should clearly indicate if gas masks are required to be used by loading personnel or provide supporting evidences that they are not necessary at this loading facility.								
M4.10	Land acquisition	Conduct an independent review or audit of the permanent land acquisition required for the northern field(s) development project of the Rajasthan Block.								

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M5.2	Reclamation, Revegetation, and Topsoil Management	The Project should finalize its forestation compensatory projects and/or other initiatives so that it can start implementation and therefore fulfill its project commitments. Modified on October 2010 - 6th Mission: 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.								
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M6.2	Reclamation, Revegetation, and Topsoil Management	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.								
M6.3	Reclamation, Revegetation, and Topsoil Management	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).								
M6.4	Reclamation, Revegetation, and Topsoil	The Project should provide details on issued contracts for the development of the greenbelt at all terminals and AGIs.								
M6.5	Health & Safety	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.								