A Holistic Approach to Oxy’s Operational Social Responsibility

La Cira-Infantas: A Case Study

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Occidental Oil & Gas Corporation (OXY)

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Houston, Texas
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Agenda

• Oxy’s Natural Gas Star Program: An Overview
• Oxy’s Corporate Social Responsibility (CSR)
  – What CSR means to Oxy; Human Rights Policy, SR Standard; SR Tool and SR Assessments
• Concept of CSR & Sustainability
• Greenhouse Gas/Methane Emission Reduction and CSR: Interlinkage
  – La Cira Infantas, Colombia: Case Study
• Concluding Remarks
Oxy’s Natural Gas Star Program

History:
• OXY Signed in 2004
• 16 Bcf (41 million tonne CO$_2$e) methane reduction in the U.S.

• Three EPA Awards:
  – 2005: EPA’s Commendation, Recognition, and Award
  – 2006: International Partner of the Year
  – 2006: Implementation Manager of the Year
**History:**

- OOG Signed affiliate partnership in 2005
- Oxycol hosted the 1st International Workshop
- Oxycol: International Partner of the Year 2005

FROM LEFT TO RIGHT: Wes Scott, OOG HES & Security Vice President; Roger Fernandez, Natural Gas Program Manager; Sandra Suarez, Environment, Housing and Territorial Development Minister; Guimer Dominguez, OxyCol President & General Manager; William Wood, Colombia USA Ambassador
Natural Gas Star International

• OOG signed as one of the Founding Charter Member: September 2006
• With EPA’s assistance identified and working on three major projects in Colombia
  – Gas Capture/VRU Project at PF1, PF2, and Cari Care
• Working on projects in the Middle East
Building the SR system

- Local Action Plans
- OOGC SR Standards
- OOGC SR Policy
- Oxy Human Rights Policy
Social Responsibility Standard

- Auditable performance requirements
- Management accountability
- Integrates SR principles into decision processes
- Issues and Risk assessment requirements
- Stakeholders dialogue and engagement
- Links economic, environmental and social performance
Sustainability Assessment Baseline Tools

Social Responsibility Planning Tool - Self Assessment

Element 7: Natural Resource Protection

Category: Environmental Stewardship

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<thead>
<tr>
<th>3. Implement</th>
<th>4. Integrate</th>
<th>5. Champion</th>
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<tbody>
<tr>
<td>Public policy involvement</td>
<td>Collaborative innovation</td>
<td>Supplier communications</td>
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<tr>
<td>Stakeholder communications</td>
<td>Supplier and customer coordination</td>
<td>Linkage to business goals</td>
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<td>External partnerships</td>
<td>Integration into business processes</td>
<td>External verification</td>
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<td>Stakeholder reporting systems</td>
<td>Ongoing research</td>
<td>Comprehensive programs</td>
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<td>Stakeholder reporting</td>
<td>External verification</td>
<td>Stakeholder concerns</td>
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<td>Information gathering</td>
<td>Comprehensive programs</td>
<td>Stakeholder concerns</td>
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<td>Stakeholder initiatives</td>
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<td>Implement</td>
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Sub-Elements:

7.1 Biological Resources
7.2 Energy
7.3 Water
7.4 Raw Materials

Threshold 100%: Implemented, Not implemented, Blank

Click on the square box to change color.
• Middle Magdalena Valley
• Extension 118 km²
• Deforested Area
• Oldest Field in Colombia
• 1700 wells
• 100kmts roads
Social-Political Complexity

- Presence of illegal armed forces
- Strong labor union
- ECOPETROL: largest company
- Illegal connections to utilities
- Environmental and safety issues derived from utilities
- 250 active NGOs and grass roots groups
- 900 km shared roads between company and local communities
- Resettlement: a ghost
- Local dependency on oil industry
Risk Assessment

Business case
• Practical series of two-way conflict analysis tools
• Project and national levels
• Overview of regulatory environment
• Flashpoint issues
• Improved stakeholder relations and partnership
Risk Assessment: International Alert Pilot

- Active engagement with Business
- *Conflict Sensitive Business Practices* tool kit
- International Alert a global peace-building NGO seeking to transform violent conflict
Risks & Potential Conflicts

- Land management
- Gas and water tapping
- Density of population
- Close proximity operations
- Social Issues
- Security
La Cira

- Established Community
- All social services in place
- Entrenched infrastructure
Operating alongside the community

Houses

Wells
## Residential Gas Supply

<table>
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<tr>
<th>Items</th>
<th>Initial</th>
<th>Current</th>
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<tbody>
<tr>
<td>Total Wells</td>
<td>1700</td>
<td>1925</td>
</tr>
<tr>
<td>Wells with illegal connections</td>
<td>382</td>
<td>259</td>
</tr>
<tr>
<td>Houses with illegal connections</td>
<td>1280</td>
<td>565</td>
</tr>
</tbody>
</table>

- Red dots: Wells with illegal connections
- Green dots: Gas disconnected wells
Illegal Well Connections
Safety Concerns
Oil wells working as stoves
Clean Production Program

Inf E-1 Well

Before

Now

LC 1210 Well
Estimated Greenhouse Emission Reduction

- No. of families with Illegal Gas Connection: 1,300
- No. of gas cylinders supplied per family: 18/year
- Total energy supplied/consumed (million Btu/year): 8,500

- **Estimated GHG emissions (million tonne CO2e/year):** 3.6 to 4.8
- Estimated fugitive emissions at well-heads and connections (mmcf/year): 111
- **Total estimated gas saved (mmcf/year):** 177 to 200
Risk assessments need to integrate social, economic, environmental, and political issues.

GHG and methane reduction projects could have integrated solutions to social, economic, and environmental aspects.

Environmental solution alone would not have solved the problem. Education and awareness are necessary prior steps.

Project resulted in energy saving; Provided optimal social, economic, and environmental solution; Alleviated risks.