The Clean Development Mechanism and Sustainability: Case Studies from Chile and Bolivia

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How can the Clean Development Mechanism (CDM) further climate justice in a system where people and the environment would matter as much as GHG emissions reduction?
Clean Development Mechanism (CDM)

Kyoto Protocol, Article 12 §2:

The purpose of the clean development mechanism shall be
✓ to assist Parties not included in Annex I in achieving **sustainable development** and in contributing to the ultimate objective of the Convention, and
✓ to assist Parties included in Annex I in achieving compliance with their quantified emission limitation and reduction commitments under Article 3.

*Figure 1. The Kyoto flexibility mechanisms*
Main observations from my research (the big picture):

- Lack of procedural and legal framework in the structure of the CDM; too much focus on GHG emissions reductions, not enough sustainable development

- CDM, as long as it works as a market mechanism, will always prejudice the ‘weakest’ and tend to miss out on opportunities to promote sustainable development

- CDM will contribute to a climate injustice as long as Annex I (developed) countries do not take further steps to act domestically

**TWO CASE STUDIES:**

**CHILE**

Methane capture and combustion from swine manure treatment for Corneche and Los Guindos (2005)
- Large-scale project
- Emissions Reduction: 136,303 metric tonnes CO2 equivalent per annum

**BOLIVIA**

Carbon sequestration through reforestation in the Bolivian Tropics by smallholders of “The Federación de Comunidades Agropecuarias de Rurrenabaque (FECAR)” (2009)
- Small-scale project
- Emissions Reduction: 4,341 metric tonnes CO2 equivalent per annum
**CHILE: SITUATION**

- Strong neoliberal market economy
- Monopoly of energy market and access to natural resources by a few big companies
- Tendency to prioritize economic sector over social and environmental sectors (will coal be exploited on a large-scale?)

**BOLIVIA: SITUATION**

- More poverty, weaker institutions
- Nationalization of fossil resources
- Strong taxing of Credits for Emissions Reduction (CERs)
- Difficulty to attract projects and investors

**HOWEVER:**

- Huge renewable energy production potential
- Power to impose a SD criteria to the proposed projects

**HOWEVER:**

- Has hosted some interesting projects from a local and national sustainable development point of view – promising *debut*
DNAs and application of SD criteria

**Chile: CONAMA**
- ✔ Compliance-driven approach
- ✔ Law 19.300 and its environmental impact assessment procedure are applied
- ✔ Problem: limited interpretation of what SD is

**Bolivia: Oficina de Desarrollo Limpio (ODL)**
- ✔ Combination of compliance-driven approach and project-level specific approach
- ✔ Problem: weak enforcement of environmental laws; DNA conflict of interests

Table 7. Example of a host country assessment of CDM projects in terms of contribution to sustainable development. This table summarizes the categorization of host countries’ assessments of projects’ sustainable development contribution, from most elaborate (left) to minimal application (right).49

<table>
<thead>
<tr>
<th>Sustainable development criteria (Operational approach)</th>
<th>Needs and Priorities (Country-context specific)</th>
<th>Environmental Impact Assessment / national legislation (Compliance-driven)</th>
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<tbody>
<tr>
<td>Brazil</td>
<td>Costa Rica</td>
<td>Argentina</td>
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<td>China</td>
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<td>South Africa</td>
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<td>Sri Lanka</td>
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<tr>
<th>SD Areas</th>
<th>Criteria per area</th>
<th>CHILE</th>
<th>BOLIVIA</th>
</tr>
</thead>
</table>
| Economic     | 1. Employment Generation                      | 1. Low; no data available                                              | 1. Total of 1,292 jobs created directly from project over 40 years  
2. Complete training and capacity-building of farmers, lack of details on technology transfer  
3. Farmers’ income mainly through plantation of trees (total of 1,543 USD/ha); sale of CERs and Sicirec investment (only 21 USD per year) |
|              | 2. Technological Self-Reliance                | 2. Industry developed technology based on foreign model                 |                                                                                                                                             |
|              | 3. Income Analysis                             | 3. No income analysis                                                  |                                                                                                                                                                                                         |
| Social       | 1. Equal Distribution of Project Return       | 1. Project Return to company; no details on use of income               | 1. Incomes from timber sale: 50% farmers/ 50% AA CETEFOR-Sicirec; income from CER sale: finance the project’s implementation on the scale of its lifetime  
2. Farmers own a part of the project and can manage it through the forestry committees and FECAR  
3. Food security, sustainable income |
|              | 2. Development and Management of the Project  | 2. Developed and managed by the company                                 |                                                                                                                                             |
|              | 3. Livelihood of the poor                     | 3. Contribution to livelihood of the poor?                             |                                                                                                                                                                                                         |
| Environmental| 1. Biodiversity                                | 1. Unknown impact on biodiversity                                      | 1. Use of ecological corridors and mostly Native species  
2. Manual weed control (no herbicides); Poly-cyclic harvesting system; Agroforestry sustainability practices |
|              | 2. Soil, water and air condition              | 2. Pollution of rivers and lakes                                       |                                                                                                                                             |
|              |                                               | 3. Air quality: improved                                               |                                                                                                                                                                                                         |
• Conclusion – links with concepts and research question

• Questions & Comments