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Effects of Water Funds Projects on Forest Loss and Water Quality in Ecuador and Brazil

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Effects of Water Funds projects on forest loss and water quality in Ecuador and Brazil

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Allen Blackman
Laura Villalobos
Water Funds Projects

• Aim to conserve and/or restore forest NI in order to provide clean water to LAC cities
• Financial and technical support provided by Latin American Water Fund Partnership, an umbrella organization headed by TNC, IDB, FEMSA, GEF
• 2000: first project, FONAGUA, Quito
• Today: 16 Water Funds in operation, 24 being planning

• Interventions
  • Protection: increased enforcement patrols, fencing
  • Active and passive revegetation
  • Soil conservation on agricultural lands
  • Environmental education
  • Etc.
Project sites
Preliminary Results

• Water funds are effective at preventing forest loss
• However, this avoided deforestation is not translated into substantially better water quality as measured by the hydrological model
• The benefits are much smaller than costs

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<thead>
<tr>
<th></th>
<th>FONAPA</th>
<th>CAMBORIU</th>
<th>SAO PAULO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual reduction in forest loss below baseline rate (%)</td>
<td>9</td>
<td>13</td>
<td>7</td>
</tr>
<tr>
<td>Annual change in HFWQ (%)</td>
<td>0.18</td>
<td>0.005</td>
<td>0.000</td>
</tr>
<tr>
<td>Annual change in water utility total costs/WF admin costs (%)</td>
<td>5.67</td>
<td>0.58</td>
<td>0.00</td>
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</tbody>
</table>
Explanations

• Conservation activities and water intakes don’t overlap
• Baseline pollution levels are not severe
• We don’t account for reforestation, paramo protection
• Our measure of benefits (saved costs) could be incomplete