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

Allen Blackman
*Resources for the Future*

Laura Villalobos
*University of Gothenburg*

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

6th biannual meeting
EfD Forest Collaborative
Manchester June, 2019

Allen Blackman
Laura Villalobos
Forest Conservation Policies

Forest Cover

Water quality
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

<table>
<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