EN viro MENTAL IMPACT OF SELECTED MATERIALS

How to make a difference as a civil / hydraulic engineering project manager or consultant

<table>
<thead>
<tr>
<th>Material</th>
<th>ECI per m² of pile planking / sheet piling (EY, 2016)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timber (Azobé)</td>
<td>€0.19</td>
</tr>
<tr>
<td>PVC (Recycled)</td>
<td>€4.19</td>
</tr>
<tr>
<td>PVC</td>
<td>€4.79</td>
</tr>
<tr>
<td>Steel</td>
<td>€26.44</td>
</tr>
<tr>
<td>Steel &amp; Plastic</td>
<td>€2.50</td>
</tr>
<tr>
<td>PVC</td>
<td>€5.00</td>
</tr>
<tr>
<td>Certified Timber</td>
<td>€25.00</td>
</tr>
</tbody>
</table>

Material ECI per m² of pile planking / sheet piling (EY, 2016)

STEEL & PLASTIC

- Climate: Production generates CO₂ emissions
- Raw Materials: Depletion of scarce resources

CERTIFIED TIMBER

- Climate: Production absorbs CO₂
- Raw Materials: Use of renewable resources
As a waste product, timber is environmentally friendly. Incinerating wood for power generation purposes also has environmental benefits compared to burning fossil fuels.

Sources:
EY Climate Change & Sustainability Services performed a life cycle assessment of timber pile planking on behalf of VVNH and FSC® Nederland. The LCA consisted of a study of three timbers in accordance with NENISO 14040/14044/14025 standards and an exploratory study comparing timber, steel and plastic. Both studies used the SBK’s Bepalingsmethode Milieuprestatie Gebouwen en GWW-werken ("Environmental Performance Determination Methods for Buildings and Civil / Hydraulic Engineering Works")