Pulp & Paper Sourcing

Country Profile: Chile

December 2015
PULP & PAPER INDUSTRY CONTEXT:

Forestry in Chile - Chile has a forest area of 16.2 million ha, equivalent to 22% of the total country\(^1\). The forest industry contributes 2.6 % to Chile’s GDP\(^1\) of which the pulp and paper sector is a significant and growing sector.

Key element of the P&P supply chain - The pulp and paper supply chain in Chile comprises both domestic and international elements. The majority of virgin fibre inputs are produced domestically in Chile with comparatively small volumes of imports of fibre, pulp or paper from a number of neighbouring countries or further afield. Chile is a large exporter of the pulp it produces which forms part of raw material inputs for many other paper producing operations worldwide.

<table>
<thead>
<tr>
<th></th>
<th>Imports</th>
<th>Domestic production</th>
<th>Exports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fibre - Industrial roundwood (1,000 Tonnes)</td>
<td>0</td>
<td>96,106</td>
<td>106</td>
</tr>
<tr>
<td>Pulp for Paper (1,000 Tonnes)</td>
<td>13</td>
<td>4,981</td>
<td>4,061</td>
</tr>
<tr>
<td>Paper and paperboard (1,000 Tonnes)</td>
<td>523</td>
<td>1,391</td>
<td>586</td>
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<tr>
<td>Total (1,000 Tonnes)</td>
<td>536</td>
<td>102,478</td>
<td>4,753</td>
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<tr>
<td>Top 5 Countries</td>
<td>USA, Brazil, Germany, Finland, China.</td>
<td></td>
<td>China, Italy, Republic of Korea, Germany, Netherlands.</td>
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</tbody>
</table>

Table 1: P&P table showing volume of fibre imports, domestic production and exports\(^2\) and top five trading countries\(^1,3\)

Main species used by the industry – Exotic species of the genus *Pinus* and *Eucalyptus* dominate the industrial tree plantations are principally used by the pulp and paper industry.

Plantation vs Natural forest – The majority of domestically produced fibre is sourced from industrial pulp plantations, which have grown considerably in recent decades to supply the demands of the industry. Between 1985 and 1995, approximately 2 million hectares of native forest were cleared in Chile, primarily to produce pulp and establish non-native industrial plantations. Since the late 1990s the industrial use of native forest material has declined significantly from 4 million m\(^3\) to around 500-700,000 m\(^3\) per year in the mid-2000s\(^4\).

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Spatial concentration of the industry – The pulp and paper industry is primarily clustered in regions VII, VIII, and IX in central Chile. (See Annex 1)

Forest ownership (State vs Private)\(^5\)- The Chilean forest products industry is highly concentrated both in terms of ownership and geographic location. Some estimates indicate that four holding companies own about 40 percent of the forest plantations, and account for almost 70 percent of forest exports. The concentration of ownership is particularly high in the case of pulp and paper production, the most important sector of Chile’s forest products industry.

- Public administered forest - 25%
- Private administered forest - 75%

Legality issues\(^6\) –

- The 2014 Transparency International CPI score for Chile is 73. This is higher than 50 and indicates a low concern for governance and corruption in the country and the forest sector in general.
- Global Forest Registry\(^7\) states that Chile has unspecified risk based on its forest governance and law enforcement related to logging and trade.

ENVIRONMENTAL CONTEXT:

Forest cover/growth – The expansion of forest plantations and the regeneration of native forest has contributed to an overall increase in forest cover in Chile. Between 2000 and 2010 Chile’s forest increased by 0.2\(^1\). Likewise, the FAO reports an increase in the total forest area of 188,000 ha between 2005 and 2010. However, as mentioned above, during the same period, 133,000 ha of mature and naturally regenerate native forest were cleared\(^8\). Over 95 percent of remaining intact native forest is found in the southern part of the country and a very small percentage is located in the central portion of the country.

Concerns about the forest sector\(^9\) – Chile has approximately one-third of the world’s remaining intact temperate forests, including forests of great ecological and

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conservation importance that store large quantities of terrestrial carbon and provide diverse ecosystem services. Forest policy and economic incentives have promoted the establishment of large-scale plantations. Concerns raised by civil society groups include the loss of native biodiversity from deforestation and degradation of native forests, declining water production over broad landscapes due to clearcut logging practices and drought (associated with climate change trends), and the loss of territory and land and resource use rights of indigenous people, principally Mapuche communities. The Global Forest Registry indicates unspecified risk regarding forest regulation and logging in Chile.

**Impacts on HCV** – The main landholdings of the plantation companies in Chile are largely located between 35° and 41° S, a region considered to be a globally-important center of biodiversity and species endemism. Three of the largest plantation companies, CMPC, Arauco, and Masisa have received FSC certification on their lands, bringing the total area under FSC certification in Chile to 2.3 million ha that should in principle consider HCV forests.

**Peat resources and associated use/activities** – Chile’s peat resource covers over 10,000 km². Sphagnum and peat extraction is commonly seen in Chile and it has been documented that industrial plantations have been established on drained peatlands in late 1980s. Most of Chile’s extensive peatlands are located in regions XI and XII (44 to 55 S) outside of the area of the main forest holdings of Chile’s pulp producing plantation companies.11

**Impacts on water resources** – The water risk index of Chile is 3.2, which represents a high risk in general for the country. This though varies depending upon region given the expanse of the country from north to south. Chile has experienced four years of drought and reduced water availability from water catchments within plantation landscapes and is a concern for communities that depend on these resources for domestic and farming use.

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SOCIAL CONTEXT:

**Pulp and paper industry employment**

Over the past 40 years, the Chilean forest sector has expanded rapidly, becoming a driving force in the national economy. Of the 86,000 people employed in the forest industry, approximately 15,000 people (17%) are engaged in the pulp and paper sector. The broader forest sector accounts for approximately 10% of the country’s total labor force.

**Concerns about FPIC or other social issues**

According to the Global Forest Registry, there exists unspecified risk in Chile concerning the FPIC and social issues. Chile’s indigenous people, the Mapuche, have seen their traditional lands converted to plantations in the face of subsidies and limited recognition of rights and are struggling to reclaim large tracts of their traditional lands. Since the restoration of democracy in 1990, the forest sector has been affected by conflict between Mapuche organizations and forestry companies which have included waves of militant protest and repression from the Government. The land disputes are not entirely resolved, and some observers expect protest over land claims within the industrial plantation landscape to intensify periodically in the future.

FOREST CERTIFICATION CONTEXT:

Certification schemes available in Chile-

- FSC\(^{13}\) - 2.3 million ha (equivalent to 14%),
- PEFC\(^{14}\) - 2 million ha (equivalent to 12%).

**Criticisms of the schemes**

The growth of FSC certification has led to improvements in forest stewardship over large parts of the landscape, however, this predominantly covers the largest industrial tree plantation companies which have been highly criticized for encouraging loss of biodiversity and cultural deterioration in Chile\(^{15}\). The FSC Chilean scheme only includes some of the social and environmental stakeholders, especially Mapuches community representatives. Conflicts have occurred in FSC certified plantations as identified by the FSC office in Chile.

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**GENERAL OVERVIEW** The pulp and paper industry in Chile is a key sector in the forest industry and is growing. Much of the raw material used by the sector is sourced from domestic production originating from pulp plantations. There are however, concerns regarding FPIC and land tenure conflicts with indigenous Mapuche communities, peat conversion in the far south of the country, conversion of native forest by small and medium sized firms, and the biodiversity and hydrological impacts of industrial monocultures over the landscape.

**PRIORITY RATING: MEDIUM PRIORITY**

<table>
<thead>
<tr>
<th>Responsible Sourcing Values</th>
<th>Legal Values</th>
<th>Environmental Values</th>
<th>Social Values</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Corruption Perception Index (CPI)</td>
<td>Global Forest Registry</td>
<td>Protection of HCS</td>
</tr>
<tr>
<td>Chile</td>
<td>Green</td>
<td>Red</td>
<td>Green</td>
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</table>
ANNEX 1: PULP AND PAPER MILL LOCATIONS IN CHILE
(Source: RISI database, accessed on December 14, 2015)