LONG-TERM INDUSTRIAL BIOMASS SUPPLY
VICHADA, COLOMBIA

Presented by:

LIGNUM PARTNERS

World’s largest shipment of biomass discharged at Port of Immingham, UK. July 2015
Vichada’s operation location – where?

The operation is located at the Vichada Department, is a department of the Republic of Colombia in South America. Vichada is located in the eastern plains of Colombia, in the Orinoquía Region within the Orinoco river basin bordering the Bolivarian Republic of Venezuela to the north and east. The land is mostly within a 100 km radius of Puerto Carreño, the capital of Vichada.

why? - most productive land in Colombia

Colombia has more than 110 million hectares of land for cultivation, but the best land is concentrated in 11 million hectares only, which 1.5 million are located within the Vichada Department. Vichada leads the ranking for the most productive land in Colombia (ref – Instituto Geografico Agustin Codazzi (Igac)).

Unmatched bioclimatic conditions for forestry in the world, with 2,300 mm/yr rain and temperature average 30 °C year round.
Species, production & specifications

New Ha. Development - Projection by Species

Approx: 60% Acacia Mangium 40% Eucalyptus Pellita

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Moisture content</td>
<td>25%</td>
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<tr>
<td>Bulk apparent density</td>
<td>&lt; 500 kg/m3</td>
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<tr>
<td>Ash content</td>
<td>&lt; 0.7%</td>
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<tr>
<td>Low calorific value</td>
<td>13.5 MJ/kg</td>
</tr>
</tbody>
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Wood chips production forecast 2020-2030

Production in tonnes

Year

2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030

0 200000 400000 600000 800000 1000000 1200000 1,084,093 163,978
Vichada’s Sustainable Development Operation

"Development that meets the needs of the present, without compromising the ability of future generations to meet their own needs."

This operation brings job opportunities to the region and reactivates the economy, together with the implementation of environmental best practices to preserve the biodiversity and richness in the region.

Sustainable Forestry Cycle

The operation is in the process of obtaining the Forestry Stewardship Council (FSC) certification, to demonstrate responsible management. FSC Certification Program in place, pre-audits have already started, we are working closely with accreditation bodies such as Rainforest and Control Union. The FSC certification ensures that the products come from well-managed forest that provides environmental, social and economic benefits.
Opportunities

Secure Long Term Supply

As the industry advances processing and logistics infrastructures, opportunity for a long term partnership nears. Enquiries from power generation projects in Northern Europe, large scale commodity traders in the UK and other mass consumers will be reviewed and discussed on a case by case basis.

Vertical Integration

There are currently +30K ha planted, +110K Ha purchased and ready for development and hundreds of thousands more cleared for purchase after due diligence. End consumers have a unique opportunity to integrate a made-to-fit project into their operations as a risk mitigation / cost efficient component of their value chain.

Land / Forestry Investment

Join other Colombian private investors in the land rush. Tens of thousands of Ha, by the Orinoco/Meta banks with direct access to the Atlantic are still available. We offer rent-back income of purchased land at a fixed rate for internal forestry development.
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