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Sectoral performance of water management in plantations-based industry

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INTRODUCTION

The plantations-based industry in Brazil holds 9.5 mi ha of planted trees and sets aside 6 mi ha of native vegetation for conservation. This sector has been investing in researches about water since 19th century. In 2014, Ibá, the association representing politically and institutionally this sector, started initiatives towards a more strategic and proactive approach, and launched the report "Performance Report on Water Management in the Planted Tree Industry".

SCOPE

The key performance indicators (KPIs) of this report were collaboratively defined and were divided into 3 categories: corporate, forestry, and industry. The report was built based on information provided by companies producing raw wood, pulp, paper, panels, and flooring, which represent 42% of the plantation area and 83% of the industrial production (2018). The results are an average among all companies participating in the survey over 2016 to 2019.

MAIN OBJECTIVES

The report aims at providing governance and transparency to the continuous monitoring of the water management practices in this sector. It is innovative in the sense of allowing companies to understand whether their individual results are satisfactory relative to the sectoral performance, and also for guiding the delivering the 8 sectoral commitments.

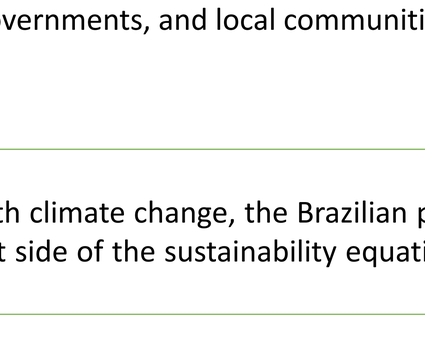
The **corporate KPIs** are centred on the incorporation of perceptions and experiences of people who interact with the managed areas in the management practices. The main findings are:


Source: Eucatex

- 100% of the companies have public relations channels to receive comments, complaints, and suggestions;
- Only 0,3% of all public interactions were related to water;
- 90% of water-related interactions were responded to or addressed by the companies.

The **industrial KPIs** reflect the application of the concept of circular economy in the production processes. The main findings are:

- 82% and 53% of the water captured by pulp & paper, and panel & flooring companies respectively, is returned to the water body it was extracted from. This sector is not a big consumer but a big user of water since most of it returns to the origins after being rigorously treated.
- 43% and 12% of all water used for manufacturing pulp & paper, and panels & flooring, respectively, come from reuse. It is worth mentioning that pulp, paper, panel, and flooring producing processes are very different in how they use water. MDF and MDP panels are manufactured by dry pressing, for example.


Source: Dexco

The **forestry KPIs** focus on adaptive management and researches to match water availability with demand from forests and other land uses. The main findings are:

- 100% of companies have practices for soil and water conservation. 93% of them prevent erosion, and 93% leave bark, branches, and leaves on the ground after harvesting to improve soil infiltration capacity.


Source: Suzano

- 85% restore natural vegetation in the surrounding of water bodies when necessary, or take measures to protect it.
- 86% monitor qualitative aspects on water bodies, such as fertilizers, pesticides, and sediments.
- 77% perform quantitative monitoring, and 58% collect the data at least once each day.
- 39% have academic partnerships to develop researches and perform monitoring, for example.
- Different scientific studies on the water balance show that an average of 83% of the rain that falls on plantations is evapotranspired. This value is similar to the one for native forests (81%).

Based on these KPIs,
the sector has set itself the following
8 commitments:

1. Expanding studies on the water balance in plantations
2. Renewing partnerships to support research, development, and innovation.
3. Publishing its water management performance every 3 years
4. Expanding the implementation of quantitative and qualitative monitoring of water bodies
5. Reducing the volume of water taken from water bodies by reducing losses and leaks during production
6. Improving the calculation of water that returns to the atmosphere and is retained in final products by the flooring and panels segment.
7. Investing in technologies to boost reuse
1. Maintaining and encouraging discussions among academia, NGOs, governments, and local communities, especially those in the same watershed to deliver better-shared water use.

ibá
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CONCLUSION

On a planet where exponential population growth is expected along with climate change, the Brazilian plantations-based industry recognizes the need for significant changes in our patterns of consumption and production. Our KPIs show that we are on the right side of the sustainability equation, steadily walking ourselves through the path of adaptive management, and at the forefront of transparency with the delivery of this report.