WATER FOOTPRINT OF PAPER OF BIO PAPPEL VERACRUZ INDUSTRIAL PLANT

El Agua Nos Une – SuizAgua América Latina

Company
BIO PAPPEL

Sector:
Pulp and Paper

Location:
Veracruz, México.

Date: July 28th 2020

ABOUT BIO PAPPEL

With a history of more than 35 years, Bio Pappel® began with an ambitious dream: To build a world-class paper company to promote integral sustainability by recovering post consumed paper and cardboard, the efficient use of water and energy and the sustainable use of our forests, guided by one purpose: To serve Mexico with the best of our entrepreneurship, supported by a strong culture of learning and innovation, inspired by the best business practices of the international paper industry.

Since then, the company has built a successful history in the paper industry, expanding not only vertically but geographically to become an international company and the largest manufacturer of paper and paper products in Mexico, with operations in the United States and Latin America.

Faced with this problem, Bio Pappel® has decided to be part of the solution and has started important tasks such as the efficient use of water in all its processes, zero water discharges system and wastewater treatment. In addition, Bio Pappel® is constantly looking to increase competencies. They have recently initiated a staff training project in the use of tools that allow them to improve their water management, with an internationally valid methodology and recognition over stakeholders, that will enable them to quantify their potential impacts of their activities on water resources.

This is how Bio Pappel® has provided the tools and facilities for its staff to know and develop projects for Water Footprint quantification according to the ISO 14046 standard and following the recommendations for regional coherence developed by the community of practice in Latin America.

t is important to mention that, when talking about Water Footprint, not only the volume is considered, that is, the amount of water consumed throughout the life cycle; but also its availability, varying from one region to another, as well as the water quality and the impacts such as contamination of aquatic ecosystems and the water source.

PRINCIPALES PRODUCTOS

Scribe®
Is the largest integrated white paper company in Mexico and Latin America.
Products: Large bond paper rolls for books, continuous forms and commercial printing, cut bond paper and notebooks.

Titan® Empaques
Is the largest paper manufacturer and leader in the production of corrugated and high graphics packaging in Mexico and Latin America.
It maintains the leadership in its field thanks to the structured strategy of vertical integration, geographical presence, a wide national network and advanced technology to stay ahead.

Products: Large paper rolls for packaging and containing, white and brown liner paper for packaging. Corrugated and high graphic boxes, newsprint and paper bags.

McKinley®
Is the largest Mexican company paper, corrugated packaging and containing manufacturing in the United States. It has an extensive production and distribution network, from its industrial plants in the states of Washington, New Mexico, California, Texas, Georgia, Colorado, Arizona and Indiana, as well as Baja California in Mexico.
Products: Paper for packaging and containing, corrugated boxes.

CONTEXT

The Industrial Plant where this evaluation was carried out is located in Carr. La Tinaja-Cd. Guzmán No. Km. 66.5, Col. 3 Valles Centro, Municipio Tres Valles, Veracruz.

GOAL

To quantify the potential impact to water from the production of 1 notebook in Bio Pappel Scribe located in Tres Valles, Veracruz in the year 2018.

SCOPE

The LCA of the manufacture of 1 ton of bond paper at the Bio Pappel Scribe Plant located in Tres Valles, Veracruz during 2018, is focused on the inventory analysis and evaluation of the potential impact to water from cradle to gate: raw materials, transport, production, packaging and distribution.

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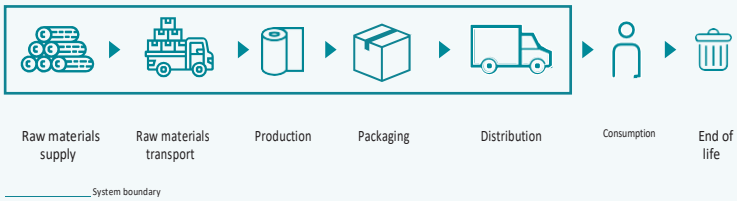
SYSTEM BOUNDARY



The Water Footprint evaluation considered one ton of kraft paper without making a distinction of the type, weight, and specification in general.

UF FUNCTIONAL UNIT

To produce 1 ton of Kraft paper in the Veracruz Industrial Plant in 2018.

RESULT OF THE LCIA OF 1 TON OF BOND PAPER PRODUCED IN VERACRUZ INDUSTRIAL PLANT

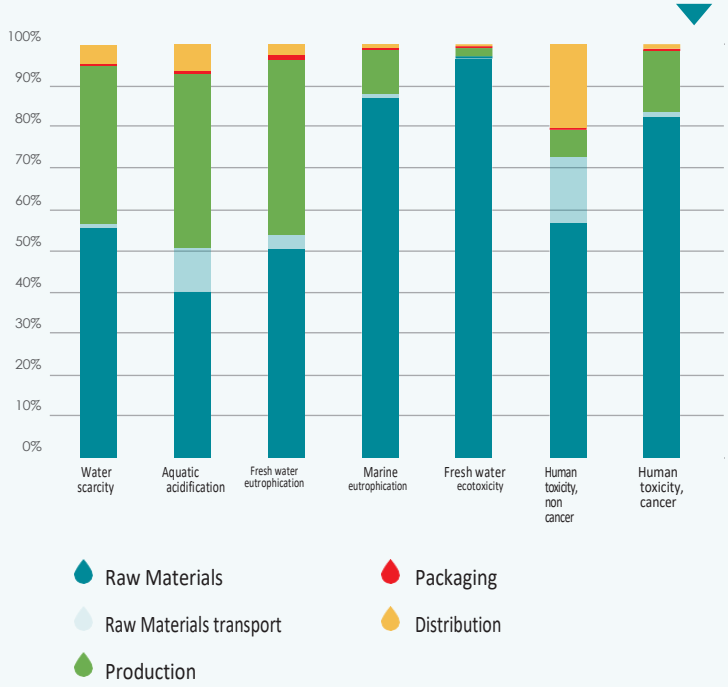


Figure1. LCIA results of the water footprint of 1 Ton of Kraft paper.

As can be seen in Figure 1, the raw materials stage presents the greatest impacts in practically all categories, followed by the production stage.

Water Scarcity - This impact is mostly affected by the raw materials stage with 55.5% followed by the production stage with 38.1%.
Aquatic Acidification - The production stage contributes the most to this category with 42.0% followed by the raw materials stage with 39.9%.

Freshwater Eutrophication - This category is mostly affected by the raw materials stage with 50.5% followed by the production stage with 42.2%.
Marine Eutrophication - This category is mostly affected by the raw materials stage with 86.1% followed by the production stage with 10.5%.
Freshwater Ecotoxicity - Practically most of the impacts of this category occur in the raw materials stage (96.5%) and in a lesser extent, during production stage with 2%.
Human Toxicity, Cancer - The greatest impacts occur in the raw materials stage with 56.7%, followed by the distribution stage with 20.1% and the production stage with 16.1%.
Human Toxicity, Non Cancer - The raw materials stage contributes 82.4% of the impacts followed by the production stage with 14.7%.

OPPORTUNITY AREAS

It is recommended to generate steps in the short term so that suppliers provide complete, truthful and forceful information to avoid or reduce assumptions that lead to deviations in the results of the impact assessment. The recommendations and decisions undertaken to maintain competitiveness and reduce environment impacts of Bio Pappel will depend on this.