



Company
BIO PAPPEL

Sector:
Pulp and paper

Location:
Hidalgo, 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.

It 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.



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 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

Bio Pappel TITÁN Paper Industrial Plant is located in Camino a Tizayuca-Trezon-tepec # 5, Tizayuca Hidalgo.



GOAL

Quantify the potential impact to water of 1 ton of Kraft Paper produced at Bio Pappel Titán Paper Plant located in Tizayuca, Hidalgo; during 2018.



SCOPE

Bio Pappel Hidalgo Industrial Plant produces the following paper products for the manufacture of cardboard boxes and cardboard products:

- Kraft paper liner
- Kraft paper medium



MAIN PRODUCTS

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.



Company
BIO PAPPPEL

Sector:
Pulp and paper

Location:
Hidalgo, México

Date: July 28th, 2020

SCOPE

The LCA of kraft paper includes the inventory analysis and the impact assessment to the water for the following stages: obtaining raw materials, transportation of raw materials, production, packaging and distribution.

SYSTEM BOUNDARY



- Eutrophication
- Fresh water ecotoxicity
- Human toxicity, cancer
- Aquatic acidification
- Human toxicity, non cancer
- Water scarcity

There is a high percentage of water scarcity in the production stage, followed by distribution. For this impact category AWARE factor directly influences the result.

Regarding human toxicity (cancer and non-cancer) there is a high percentage of contribution related to the packaging stage, due to the type of materials used.

The production stage has a high contribution to ecotoxicity category; unlike the other stages, where its impact is not significant.

Within aquatic acidification impact, the percentage of contribution is higher for production and packaging stages than the others.

This methodology for calculating the water footprint allowed not only to observe the consumption of this essential resource, but also possible effects that the production of 1 ton of kraft paper has on the environment with a life cycle perspective. According to the results obtained, the production stage has a higher percentage of scarcity and ecotoxicity than the other stages, considering the inputs used in this stage for water treatment, steam generation, etc.

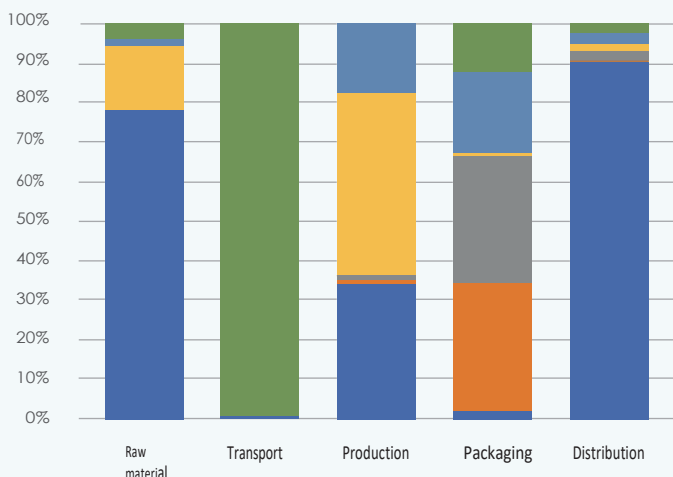
Regarding eutrophication, the stage with the highest percentage is raw materials transportation.

The Water Footprint study is focused on kraft paper in general.

FUNCTIONAL UNIT

Produce 1 ton of Kraft paper at Hidalgo plant in 2018.

IMPACT ASSESSMENT TO WATER IN THE LIFE CYCLE OF 1 TON OF KRAFT PAPER PRODUCED IN BIO PAPPPEL HIDALGO PLANT



IMPROVEMENT IN WATER MANAGEMENT

Direct communication with suppliers is recommended to request information on missing data such as chemicals with unknown composition, as well as specific information of their transport, origin, among other data.