

**EVERYTHING YOU WANTED  
TO KNOW ABOUT PAPER AND  
HAVE NEVER ASKED**

**INTERNATIONAL  PAPER**

INTERNATIONAL  PAPER

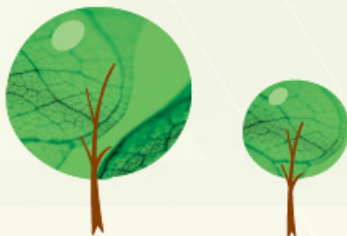


READ... LEARN...  
AND USE IT!



Even though we were raised with paper and benefited from it, sometimes we feel guilty to use it. That is why we confront ourselves with pieces of information that are not true.

## ARE THE NEXT SENTENCES FAMILIAR TO YOU?



Paper deforests native forests.

We must consume less paper.

Paper will end.



IT'S TIME WE  
KNEW THE TRUTH.

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Those expressions are present in many messages, but without argumentation capable of sustaining them. Paper has a number of benefits that great part of the population does not know. It must be said that the use of such millenary product is completely in line with environmental preservation.

In this material, we will present to you a set of data you have not considered yet. When we know facts, we see things from a different point of view. You can understand better how the paper choice can, in fact, ensure that new trees are planted and more native forests are protected.



IT'S TIME WE WENT  
OVER THE FACTS.



You all know that the paper key raw material is the tree and that trees come from forests.

## BUT LET'S BE MORE SPECIFIC. WHICH FORESTS?

The paper for printing and writing that you use comes from the eucalyptus cultivation (eucalyptus trees planted for such purpose) and is certified, it is part of a sustainable project that benefits both people and nature.







## DATA ON TREES PLANTED IN BRAZIL 7.6 MILLION


of hectares of planted forests (all industries)



## IN THE PAPER AND PULP INDUSTRY 100%

of the paper for printing and writing produced in the country  
comes from the eucalyptus or pine tree cultivation

Source: Iba



LET'S SEPARATE THE  
MYTH FROM THE REALITY.  
LET'S GO OVER THE FACTS.

# IS THE ELECTRONIC MEAN MORE ECOLOGICAL THAN PAPER?

Many people believe that electronic means are more ecological than paper, and that their environmental impact is lower. Paper for printing and writing consists of pulp, which is produced from wood coming from planted trees and is 100% recyclable and biodegradable. On the other hand, electronic devices consist of metals, coming from non-renewable resources, extracted, mainly, from gross raw materials, such as coal, ores and oil, which go through extracting and refining processes until they become fibers, chemicals, plastics, etc. However, the issue is not about the definite replacement of one for the other, since both are complementary, but a conscious balance in the daily demand.



**In Brazil, the recycling rate of paper that can be recycled is close to 60%**  
Source: Iba

## WILL PAPER END ESPECIALLY BECAUSE OF ELECTRONIC MEANS?

Studies show that paper consumption is related to, among others, investments in education, increased income and quality of life, mainly in emerging countries. Even though there is a tendency of consumption fall or stagnation in some developed regions, in developing countries we can observe that paper consumption keeps growing, exactly as a consequence of such increased income and educational level. A lot is been speculated, but the truth is that the access to electronic means does not replace the use of paper and, in many aspects, it even leverages its use, once people have more access to information and prefer, many times, to print them.





The fact is that either printed medias or digital medias constantly need innovation to maintain their sustainability and competitiveness. Our choices must be made based on the analysis of how products are made: life cycle, disposal, consumption of non-renewable materials, energy consumption and overall environmental impact. In last instance, the issue is not if we must use electronic means or paper, but that the combination of both will have lower overall impact on the environment.

**Book sales in Brazil increased 10.4% in 2013.**

Source: Fipe

**DID YOU  
KNOW IT?**

## HOW DO I KNOW IF THE PAPER I AM BUYING IS SUSTAINABLE?

To make sure you are doing the right choice by buying paper, choose certified products. The forestry certification labels in paper prove that the wood used in the process comes from well-managed forests that respect the environmental and social aspects of such production. A certified company protects biodiversity. It means that you are not only buying paper, but complying with an environment preservation goal, not only today, but for many generations.





**DID YOU  
KNOW IT?**

There are specific certifications that monitor the actions of the company with regards to the environment. In Brazil, International Paper, manufacturer of Chamex, Chamequinho and Chambril paper, has the following certifications: - Cerflor – Brazilian Forest Certification Programme managed by Inmetro and internationally recognized by PEFC (Programme for the Endorsement of Forest Certification); FSC® (Forest Stewardship Council®), recognized as a “green seal” and present in more than 75 countries; Ecolabel Flower – International Paper is the first company in Latin America to receive this certification, recognized all over the European Union and that accredits the good environmental performance of industrialized products and services. Additionally, the company owns ISOs 9001, 14001 and ISO 18001 (OHSAS).

IF I USE  
PAPER,  
WILL I BE  
DESTROYING  
TREES  
AND HARMING  
THE NATURE?



No. As well as cotton and soy beans are cultivated for the production of fabric and oil, eucalyptus and pine trees are also planted for the production of paper. The paper for printing and writing produced in Brazil comes from 100% of such plantations, exclusively destined to the harvest and production of pulp, which is the paper key raw material. Besides, that type of cultivation contributes to the preservation and enlargement of native forests.





**DID YOU  
KNOW IT?**

International Paper maintains, for each three hectares of eucalyptus plantations, one hectare of land reserved for regional fauna and flora preservation.

## WHAT IS THE IMPACT OF THE PAPER INDUSTRY AND THEIR FORESTS ON THE CLIMATE CHANGES?

In order to reduce the “carbon footprint”, the paper and pulp industry bets on the promotion of using renewable sources of energy in the industries and carbon sequestration or storage in forest plantations. Great part of the energy used in the industry comes from residues of planted trees and the recovery of chemicals used in the process. In the case of residues of planted trees, the name given is biomass. The emissions generated are not counted as sources of greenhouse gas emissions, because they come from renewable sources of energy and are considered “carbon neutral”. That means that the carbon removed from the atmosphere by tree growth is equal to the carbon released during the production of energy.





Well-managed forests are a renewable resource that favors the balance of the carbon cycle, capturing CO<sub>2</sub> from the air and “sequestering” it in the wood. Products created from forests, such as the paper produced by International Paper, keep storing carbon during their life cycle. To have an idea, the UN (United Nations) itself already considers planted forests within the methodologies of Clean Development Mechanism (CDM). There are ten methodologies of large scale projects approved by the UN for afforestation and reforestation projects in the range of CDM. Among them, we can highlight the AR-AM0005 which addresses forest plantation for industrial and/or commercial use.

**DID YOU  
KNOW IT?**

**One hectare of eucalyptus forest at IP Brazil captures 51 tons of CO<sub>2</sub> from the atmosphere every year. And 18 eucalyptus trees are replanted for each ton of paper produced.**

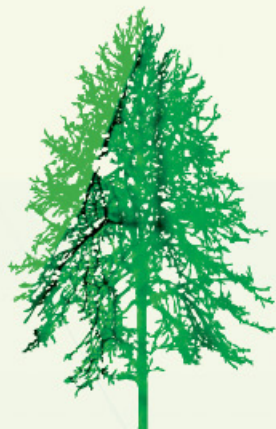
## DOES EUCALYPTUS DRY UP THE SOIL?

The cultivation of eucalyptus with sustainable management does not dry up the soil and, yet, it helps regularize water flow of rivers and decrease turbidity and siltation in fountainheads. That because those forests respect the areas destined to the riparian forest and, yet, for the fact that they recover the soil, they help empower water infiltration. Therefore, in the eucalyptus cultivation, as well as in any other type of cultivation, what matters is the management that is done in the areas, and the characteristics of each region should be respected, as well as the natural availability of water in those places. Without such care, there would be the probability of drying up the soil, not because of being eucalyptus, as this would happen in any culture, but because the management was not well-planned.



**DID YOU  
KNOW IT?**

The respect to the Brazilian Forest Code, especially with regards to the preservation of river banks and headwaters surroundings with native forests, is a premise to be followed by the management of eucalyptus forest plantation, as well as by any other cultivation systems. Thus, the impacts on water resources are significantly reduced.





## DOES EUCALYPTUS DEplete THE SOIL?

As well as in the myth of “drying up the soil”, any cultivation that does not have technical care, monitoring and soil fertility corrections, can deplete the soil indeed. It is important to highlight that the soil is the major heritage in the paper and pulp industry; therefore, industries take care of it so that it is not degraded. In the case of International Paper’s planted forests, the cultivation goes through a management that considers all the natural characteristics of each region. Studies show that well-conducted management can, in fact, improve physical, biological and fertility properties of the soil if compared to, for instance, degraded pastures.

Some strategies used by International Paper to control the quality of the soil are frequent monitoring of fertility, application of fertilizers to replace nutrients, maintenance of harvest residues in the field, minimal preparation of the soil without the need of turning it, leveled plantation and adoption of soil preservation practices, such as the construction of structures to stop and discipline the superficial outflow of rainfall water, both in the cultivated areas and in the roads. A proof that eucalyptus does deplete the soil is that International Paper owns areas that are covered by eucalyptus for more than 50 years, always with high productivity and without evidences of degradation of its lands.



**DID YOU  
KNOW IT?**

**Only at International Paper, more than 16 million seedlings are produced yearly. The company has 102 thousand hectares of forests, and 26 thousand of them are dedicated to native forests.**



## DOES EUCALYPTUS PLANTATIONS CREATE THE SO-CALLED GREEN DESERT?

The expression green desert – used by some groups of environmentalists to designate the environmental impact caused by monoculture of trees in large extensions – once again comes down to the idea that every culture, with no sustainable management, depletes the soil and reduces regional biodiversity.

At International Paper, the statement that we create ‘green deserts’ is not true. Because we merge our eucalyptus plantations with natural preservation areas, allowing that wild animals can freely run. The proof of that is that studies developed in partnership with Universities and Research Institutes have identified about 375 native species of trees present in International Paper forest reserves and 380 animals from the Brazilian fauna, especially birds and mammals.



**DOES THE  
EUCALYPTUS  
CULTIVATION  
(SILVICULTURE)  
DECREASE  
JOBS  
IN THE FIELD?**

Quite the contrary. Eucalyptus plantation to produce paper and pulp is responsible for the generation of thousands of direct and indirect jobs. There is also other ways to account the wealth generated in the communities close to the eucalyptus cultivation, among them the collection of taxes, investment in infrastructure, consumption of local goods and services.



**DID YOU  
KNOW IT?**

At International Paper, more than 70% of materials and services used by the company are acquired in the regions where the mills are located.

DOES THE  
PAPER PROCESS  
EMPLOY  
**TOXIC**  
CHEMICALS  
THAT POLLUTE  
THE AIR AND WATER  
AND CAUSE  
**ACID RAIN?**

The paper and pulp production process employs chemicals, as well as every industry of chemical transformation. However, that use is entirely controlled, which avoids potential aggressive effects to human health and to the environment. In the paper and pulp production, part of the inputs goes through a recovery process and is reused. The gases generated in the production process are only released into the atmosphere after a filtering process.





The technology of the industry has had great advancements in the last decades, aiming at replacing traditional chemical inputs, notably in the pulp whitening process, for more environmental-friendly inputs based on oxygen. Acid rain results from atmospheric emissions of sulfur compounds. In the paper and pulp industry, sulfur emissions (Odor and  $\text{SO}_2$ ) have been reduced and are below the values regulated by the legislation, and are not the root cause of acid rain.

WE ALREADY  
KNOW THAT THE  
**EUCALYPTUS**  
**CULTURE,**  
WITH SUSTAINABLE  
MANAGEMENT,  
DOES NOT  
**DRY UP**  
**THE SOIL.**  
BUT WHAT ABOUT  
THE WATER USED  
TO PRODUCE  
**PAPER?**

Water is the fundamental element in the paper and pulp industry, from the process of obtaining the key raw material in the plantations to the manufacturing process where it is used to obtain fibers, pulp washing and whitening, and in the preparation of fibers, especially in the transportation of such fibers and their additions to make paper. For such importance it has, the quality is permanently controlled and the technology is constantly enhanced.



The water is used throughout the paper production cycle. International Paper's effective water consumption is 7.71 m<sup>3</sup> per ton\*.

**DID YOU  
KNOW IT?**

**95% of the water used in paper production returns to the water course.**

*\*The approximate value results in the average calculation of the mills that have integrated production of pulp and paper at International Paper in Brazil. The difference between the water collected from the water course and the water returned after being treated was considered. Such value corresponds to approximately 5% of water losses within the production process. Those losses mainly occur due to evaporation.*

**WHERE DOES THE  
ENERGY  
USED TO MAKE  
PAPER  
COME FROM?**

In the paper and pulp industry, great part of the energy used in the production process is produced by the own company, whether it is from recovering the energy generated in the production or the residues of trees, called biomass.



**DID YOU  
KNOW IT?**

**In 2013, International Paper achieved 49% of reduction of Greenhouse Gases and increased by 90% its energetic matrix consisting of renewable energies in Brazil. Those numbers were possible mainly due to the installation of the new biomass boiler at IP's Mogi Guaçu unit within the State of São Paulo.**



## IS RECYCLED PAPER BETTER TO THE ENVIRONMENT THAN WHITE PAPER?

In the case of paper, whether it is produced with 100% virgin fiber (white) or with OCC (recycled), both are equally sustainable. The two products have a spot in the marketplace, which gives the consumer the right to choose, according to their needs. The conscious choice is in choosing certified products, as they have clear policies regarding to the environment and the society. The certification is a guarantee that the product respects the sustainability tripod: social, economic and environmental.

**SURPRISED?**



So let's make that  
everyone knows about it.

Let's tell our clients...

Let's tell our colleagues and friends...

Let's tell our family...

Do not wait for an invitation.  
Start today.

To learn more information  
about paper, access:  
[www.internationalpaper.com](http://www.internationalpaper.com)

Customer service:  
Email: [sac@ipaper.com](mailto:sac@ipaper.com)  
Phone: 0800 70 300 70\*

\*from Monday to Friday, from 8am to 3pm.



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