

# Conserve Paper and Trees- A Vital Role in Protect Environmental Degradation and Climate Change in Worldwide Increasing Population

ISSN: 2770-6745



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**Submission:** 📅 October 12, 2023  
**Published:** 📅 December 13, 2023

Volume 4 - Issue 3

**How to cite this article:** Kamal Prasad\*.  
Conserve Paper and Trees- A Vital Role in  
Protect Environmental Degradation and  
Climate Change in Worldwide Increasing  
Population. Biodiversity Online J. 4(3).  
BOJ. 000587. 2023.  
DOI: [10.31031/BOJ.2023.04.000587](https://doi.org/10.31031/BOJ.2023.04.000587)

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## Abstract

In this manuscript, discuss the concept of "Save papers, trees, the environment and the earth". All over the world, the environment is degrading every day due to various activities, the nature of human life and the surrounding environment. Paper is made from many different types of trees. Trees, as silent protectors, play an essential role in maintaining diversity and ensuring the survival of life forms. Plenty forests are destroyed to produce paper for daily use. Deforestation leads to loss of habitat, animals, and species. In particular, the education system is implicated in environmental degradation due to the significant use and waste of paper in the education sector, which plays a major role in environmental degradation and climate change on a global scale. Various institutions and businesses sectors also play an important role in environmental degradation by exploiting various natural resources around the world. Paper production uses significant amounts of forest resources, water, energy, and chemicals. Deforestation causes climate change, soil erosion and habitat loss for millions of species. Reducing paper use can minimize negative impacts on our ecosystem and reduce global environmental pollution and climate change.

**Keywords:** Save paper; Tress; Biodiversity; Earth

## Introduction

Earth is a unique planet with a lot of biodiversity and life around the world. Trees, as silent caretakers, play an essential role in maintaining this diversity and ensuring the survival of life forms [1]. They serve as the planet's lungs, absorbing carbon dioxide and releasing oxygen, a process vital to life on Earth. However, the increasing rate of deforestation threatens the balance of the ecosystem. The slogan "Save the trees, save the earth, save the environment and the earth" is not only a slogan but also a call to action to preserve our planet [2]. Paper consumption is increasing at an alarming rate worldwide [3]. Using paper has many harmful effects. It's time for all of us to be more environmentally responsible and save paper to protect the environment. Paper is mainly used by businesses to record their daily activities. Plenty of forests are destroyed to produce types of paper. Deforestation leads to loss of habitat for animals and loss of species. Furthermore, it also contributes to global warming, climate change and creates a chain of harmful reactions for humanity. Trees, the lungs of our planet, are an essential element of the earth's ecosystem. Their role in maintaining the balance of nature is undeniable. As progress into a technologically advanced age, currently must not forget the importance of trees and the necessity to protect them to protect the environment. A small change in daily routine can help to improve the situation tomorrow. People can protect the environment while also benefiting financially by reducing paper consumption. By starting to use less paper, people can reduce paper purchasing costs as well as printing costs. Needs to raise the awareness of all stakeholders in business, governments and generally raise the awareness of all citizens of the world about environmental protection issues. Using less paper directly contributes to environmental protection. Every piece of paper saved means

fewer trees will be cut down, helping to combat deforestation. In addition, paper production also consumes a significant amount of water, energy, and chemicals. Reducing paper consumption can minimize negative impacts on the ecosystem and reduce pollution. Paper must be saved because it takes about seventeen mature trees to produce one ton of paper. In general, trees are important for maintaining the balance of nature. Therefore, to save trees and avoid the impact of tree loss on living organisms, it is necessary to save paper. General methods to save paper as collect used and recycled paper, using both sides of the paper to write, raise awareness about the importance of trees, and use paper wisely.

Forestry activities associated with pulp and paper production have had a devastating impact on some of the world's most ecologically important sites and species. Unsustainable pulp and paper production has led to the destruction of forests with high conservation value as well as illegal logging. Minimize paper use and find better ways to recycle paper; Many trees and forests can be saved. People can not only save trees but also save the energy and water needed to make paper. In addition, the amount of toxic chemicals used in paper production will also be reduced. Many trees are cut down to make paper. Trees are important for livelihoods, air purification, rainfall, and human survival. People should reduce the use of paper to protect trees. Apply the principle of minimizing paper reuse and recycling, using recycled paper, not wasting paper, using both sides: So, to save trees, to stop deforestation, save the energy and water needed to make paper. The chemicals used to produce paper also cause pollution. The education system plays a critical role in environmental degradation by exploiting the world's various natural resources [4-7]. Essentially, focusing specifically on the education system lead to the root cause of deforestation. The use of paper by educational institutions and educational sectors is increasing in daily operations. Other organizations also use wastepaper, but the education sector leads the way in terms of paper use and waste. Environmental degradation, climate change and deforestation are the main causes of the production of large quantities of paper and its use in the teaching, learning, and testing models of the current education system. Finally, the made suggestions for implementing technological and digital methods of the education system such as reading books, online learning, etc. instead of traditional educational methods aimed at reducing the consumption of paper and other products made from trees and wood. The role of environmental law and related constitutional law is expected to play an important role in the passage of new laws or ideologies by lawmakers on natural resource protection and tree protection and forest.

### **Environment and sources for degradation**

The environment is living and non-living things around that consists of plants, animals, and reasons such as water, air, light, soil, temperature, etc. The primary causes for environmental degradation are population growth, industrial developments, deforestation, urbanization, science and technology, economic and social aspects, natural causes, etc. The abovementioned causes are the evolution of environmental degradation.

### **Deforestation**

Deforestation means the removal of large numbers of trees from forests or other lands to facilitate human activities. Loss of trees can lead to environmental degradation such as climate change, desertification, ecological imbalance, soil erosion, floods, greenhouse effect, global warming and more. So, to protect trees, avoid using products made from trees such as oil, pulp, paper, glue, wood, etc.

Deforestation is a global concern. Unfortunately, humans are cutting down trees at an alarming rate. Deforestation due to urbanization, industrialization and agriculture causes an imbalance in nature. The consequences are serious, from climate change to biodiversity loss. This deforestation leads to climate change, soil erosion and habitat loss for millions of species.

### **Sources and effects of paper on deforestation**

In most parts of the world, unsustainable paper production and consumption contribute to degradation and deforestation. Irresponsible logging and establishment of pulp plantations in natural forests can threaten fragile ecosystems and lead to pollution. Paper production requires a lot of trees and contributes to air and water pollution. It also uses many energy sources and can produce solid waste and greenhouse gases. A very important factor to note is that paper production requires cutting trees out of forests, which has a negative impact on the tree's absorption of carbon dioxide from the environmental space, leading to the production of carbon dioxide by trees from the environment space which lead to the production of large amount of polluting gases. Paper production emits 80% more greenhouse gases and 50 times more pollutants into water than plastic. This clearly indicates that the pollutants produced during paper production are more dangerous than the pollutants from plastic [8,9]. Since the 1960s, global paper consumption has quadrupled, and printing paper use has increased sixfold. Only 10% of the world's population (Western Europe and North America) consume more than 50% of the world's paper. Europeans and Americans use 6 times more paper than the world average. Paper consumption is a key driver of the forestry industry: Nearly half of the trees cut down for commercial purposes worldwide are used to make paper products. However, much of this paper use is wasteful and excessive and some is linked to human rights violations, deforestation, pollution, and emissions linked to climate change. Paper use has increased, especially in the computer age, despite technological advances such as electronic communications, which would provide good alternatives. A staggering 45% of documents printed at the office end up in the trash at the end of the day they are printed: it is not only a waste of trees but also a huge waste of money and unfair. It is not only a waste of trees but also a huge waste of money and unfairness. The average European or American uses more paper each day than people in poor countries have access to each year [10]. The many benefits of paper books and education, information sharing, and democracy, sanitation and food security must be accessible to everyone in the world without increasing production to unsustainable levels. It is up to people in wealthy societies to reduce paper waste.

## **Benefits of saving paper**

Saving paper has many benefits, such as saving money, feeling good, and walking lighter on the earth. We encourage everyone to support paper saving campaigns run by all member organizations. On the website, brings together information, case studies, advice, and inspiration to help people from all walks of life reduce paper waste more easily. Find links to additional tools and resources to reduce paper consumption and usage.

### **Cost savings**

Saving paper also means saving costs for businesses. Paper and related printing, copying and storage costs can add up quickly. By implementing paper-saving measures, businesses can significantly reduce operating costs, which can make a tangible difference in the long run.

### **Increased efficiency and productivity**

Digital documents offer numerous advantages over traditional paper systems. Electronic files can be stored, retrieved, and shared easily, saving time, and increasing overall efficiency. Collaboration tools and document management software enable seamless collaboration and improved work productivity.

### **Enhanced data security**

Paper documents can be lost, damaged, or accessed without authorization. By digitizing sensitive information and adopting secure digital storage systems, businesses can improve data security and prevent confidential information from falling into the wrong hands. Digital encryption and backup techniques provide additional protection against data breaches.

### **Improved accessibility and organization**

Digital documents provide better accessibility and organization than paper documents. With electronic files, employees can quickly find specific information, reducing manual search time and improving productivity. Advanced search, tag and folder functions enable efficient document classification and retrieval. Reducing paper waste in business requires conscious effort and a commitment to sustainability.

### **Embrace digital documentation**

The transition from physical documents to digital files is fundamental to reducing paper consumption. Encourage employees to create, edit, and share electronic documents whenever possible. Use cloud-based storage solutions to securely store and access files from anywhere, eliminating the need for excessive printing and physical storage.

### **Print mindfully**

Before pressing the print button, ask yourself whether a hard copy is necessary. Choose digital alternatives like reading documents on a screen or using electronic signatures instead of printing and signing physical copies when possible. Develop a culture of being mindful of printing and encourage employees to print only when necessary.

## **Double-sided printing**

When printing is unavoidable, make sure all printers and copiers default to double-sided printing. This simple adjustment can significantly reduce paper consumption without affecting the readability or usability of printed documents. Duplex printing effectively reduces paper consumption and helps reduce costs.

## **Digital communication and collaboration**

Leverage digital communication channels such as email, instant messaging, and project management tools to facilitate collaboration and information sharing. Encourage employees to exchange memos, reports, and updates electronically instead of printing and distributing paper copies.

## **Optimize font, margins, and formatting**

Encourage employees to use space-saving fonts and adjust margin settings to maximize content on each page. The compact format can help reduce the number of pages that need to be printed, thereby saving paper. Additionally, consider using narrower line spacing without affecting readability to further reduce paper consumption.

## **Provide training and awareness**

Organize training sessions to raise employee awareness of the importance of reducing paper waste and provide practical tips for doing so. Raise awareness about the environmental impact of excessive paper consumption and motivate individuals to actively participate in paper saving initiatives.

## **Recycle and reuse**

Establish a clearly defined recycling program in the office to ensure that wastepaper is recycled properly. Place recycling bins strategically throughout the workplace, including near printers and copiers, to encourage employees to dispose of paper waste responsibly. If possible, reuse single-sided printed sheets for drafts or internal notes.

## **Digital subscriptions and online documentation**

Encourage employees to subscribe to digital versions of newspapers, magazines, and newsletters instead of receiving paper copies. Likewise, explore the possibility of having manuals, instructions, and product documents in electronic format, reducing the need for printed materials.

## **Promote the use of electronic signatures**

Avoid printing documents solely to get a signature. Instead, use electronic signature services that allow us to sign and share documents securely and legally. Adopt a paperless approach while ensuring efficiency and compliance. As a leader or manager, demonstrate commitment to reducing paperwork by leading by example. Practice preaching and encourage others to do the same. When employees witness dedication and consistency from their superiors, they are more likely to adopt paper-saving measures. By implementing these below strategies, companies can reduce their environmental impact while enjoying benefits related to reduced

costs, increased efficiency, and improved data security. Save paper with remote monitoring and certification. Remote monitoring and certification are technology solutions that can significantly contribute to sustainability by reducing paper use within a business. These tools enable remote review and assessment, eliminating the need to print questionnaires and related documents. Participants can take the test online from any location and results are recorded electronically. This reduces paper consumption, streamlines the assessment process, and provides flexibility to candidates. Exams and administered were conducted online, also saving paper.

### Significance and role of trees

Trees are the Earth's lungs, absorbing harmful carbon dioxide and releasing oxygen. They are essential to maintaining the health and biodiversity of the planet. Trees are not simply a source of shade or a decorative element in the landscape. They are the lifeline of the planet. They absorb harmful carbon dioxide from the atmosphere, release oxygen and help maintain the Earth's overall temperature. In addition, trees prevent soil erosion, maintain water tables, and provide habitat for many species.

### Benefits of saving trees

By protecting trees, reducing pollution, fighting climate change, and preserving biodiversity. It's not just about planting more trees, it's also about protecting existing trees. Strict laws against deforestation, promotion of sustainable agriculture and forestry practices and raising public awareness about the importance of trees are some measures that could help. Trees also provide shade, food, and shelter. Everyone should participate in tree planting campaigns and stop deforestation.

### the role of trees in the ecosystem

Trees perform countless functions that are indispensable to survival and the health of the planet. They act as carbon sinks, absorbing atmospheric carbon dioxide and mitigating the effects of climate change. They also help protect soil by preventing erosion, maintaining fertility, and contributing to the water cycle. In addition, trees are also home to countless species of plants and animals, preserving the rich biodiversity of ecosystem.

### Implications of deforestation

Despite the importance of trees, deforestation continues at an alarming rate due to urban development, agriculture, logging, and other human activities. This widespread feeling of trees has serious consequences. This leads to an increase in greenhouse gases in the atmosphere, contributing to global warming and climate change. It also leads to habitat loss for many species, leading to biodiversity loss. Soil erosion and flooding are other consequences of deforestation, disrupting human and wildlife life.

### Save trees, save earth: a collective responsibility

The task of protecting trees and, by extension, protecting the Earth is a collective responsibility that requires global participation. Governments, organizations, and individuals must work together to end deforestation and promote afforestation. Policies need to

be implemented to limit deforestation and encourage sustainable practices. Individuals can help by planting trees, reducing paper consumption, and supporting organizations working to promote reforestation.

### Technological innovations and tree conservation

In the modern world, technology can be harnessed to help preserve trees. Satellite imagery and remote sensing can help track deforestation rates and identify areas for reforestation. Innovations like drones can speed up the tree planting process, while blockchain technology can ensure transparency of conservation efforts.

### Education industry

The education sector includes various sectors including technical and non-technical education. Also classified into higher education and general education. The general education sector is divided into preschool, primary, elementary, middle, and high school levels. The school education segment includes private and government schools under the Central Board and State Council. The higher education sector can be divided into two segments: regulated (professional, non-professional, technical and non-technical degree courses) and unregulated (some degree courses in remote and irregular mode). The higher education segment includes central, state, private universities, private colleges and research and technical institutions.

### Problems in Education System

The best education system is known for its practical learning, but in various countries including India, it has always followed theoretical and descriptive processes through paper studies and textbooks. According to UNESCO's India Education Report 2021, 11.16 lakh teaching posts were vacant in schools. This clearly demonstrates the lack of teacher-student ratio. The education system should focus on socio-economic factors, but the Indian education system is still only from a business perspective and is not developed. According to the survey report conducted in 2020, India ranked 33rd in the list of top-ranked universities globally. Countries like USA, UK, Australia, Sweden, Netherlands, France, Denmark, and Canada are leading as all these countries undergo practical learning rather than theoretical process [3,4,11-14]. It can be said that whenever practical exposure is high, critical thinking and logical reasoning will be clearly present in the learner and paper consumption will decrease due to non-descriptive answers and procedures.

### Papers used and number of trees destroyed by a graduate

Calculating the number of documents used and the number of trees destroyed by an Indian citizen is not an easy task at all. The calculation done here is based on different assumptions and different survey reports [12-16]. The objective of calculating the paper consumption of a graduate student in India is to create awareness among the people of India, educational sectors, legislators, and everyone involved in environmental protection, about the number of millions of trees that have lost due to lack of improved and business-oriented education system of the Indian

nation. Because the education sector consumes a lot of paper in the past and today, up to now people have lost millions of trees and suffered a lot of damage from changes in the nature of the environment. The purpose of this manuscript is to change the future by changing the method of education in India. Let's look at the survey reports and calculations below for reference. A survey in the United States found that "a typical school uses an average of 2,000 sheets of paper per day. During 160 working days each year, a school uses more than 320,000 sheets of paper each year. This survey is very complicated to calculate in India due to thousands of schools and thousands of colleges. Therefore, analyzed and calculated the damage to trees caused by a person using papers from school until obtaining a higher degree, which is more than 17 years of education.

All the values mentioned above are based on our personal experience and oral survey of some education industrialists regarding the use of minimum paperwork in the various state of India. Here, we have highlighted that the average use of papers by a graduate person amounts to more than 35,000 papers from their primary education to higher education qualifications. If a person has a double degree, triple degree, or multiple degrees, that person's paper consumption rate is higher than this basic value of 35,000+ and can go up to 40,000+ paper. From the previously analyzed calculation, the number of sheets of paper is equal to one tree, as one tree produces about 8,500 A4 sheets. Here, when calculating the number of papers used by graduate students, get about 35,000 to more than 40,000 papers. To get a professional or non-professional degree in their lifetime, these people have used about 40,000+ papers, including printed books, reference books and other documents, unprinted paper, recycled paper, blank paper, and many other alternative products. The tree is used as stationery for students. Thus, from this analysis, we conclude that a person who is an Indian citizen, about to graduate, has destroyed the life of at least 5 trees. The destruction of 5 mature trees is a very small number but it can be double that number. This figure only considers one person's use in education. If a person consider the total use and waste of trees by a person over their lifetime, it is difficult to calculate. In India, there are currently about 1,200 universities and several so-called universities, thousands of private colleges and hundreds of public colleges operating under the control of universities and colleges. UGC. According to government reports (National Employment Report & All India Survey of Higher Education-AISHE), around 30-35 lakh students graduate every year in India. Furthermore, according to 2011 census, about 8.15% (9.9 crores) of Indian population are graduates, so if it consider currently, in India there are about 13.5 crores students graduate with a single degree. With the increase in the education rate of the population every year, the rate of degradation and destruction of natural resources also increases rapidly from year to year. Therefore, from the above reports and calculations about tree loss, unhealthy environment and available natural resources, environmental analysts and legislators should focus on this issue and make the right decisions to bring security and a healthy environment to future generations of citizens of the country.

### Suggestions and ideologies

The beneath are the valid reasons for an individual or a group of people to use less paperwork to protect the environment from the ravages of nature. The reason is:

a) On average, one tree can only produce 17 reams of paper, so paper production requires a lot of mature trees and takes about 100 years to grow, which contributes to deforestation. Every ton of paper produced generates the equivalent of 1.5 tons of carbon dioxide and thus to produce 17 reams of paper from one tree, 110 pounds of carbon dioxide are released into the atmosphere, leading to air pollution.

b) Fossil fuels are used to produce ink and inks used for printing purposes contain chemicals, oils and other substances that are harmful to the environment.

c) Depending on the pulp and paper factory, the water consumption of printing and writing paper is estimated from 2 - 13 liters for an A4 sheet (300 to 2600m<sup>3</sup>/ton), contributing to water waste.

### Changes to education system pattern

Related to the above discussion, there is a need for changes and updates to the education system and its methods. The main changes needed in the education system are that the current traditional paper-based method of education needs to be updated to a fully digital version or at least the changes need to be made incrementally, reducing the use of paper. Additionally, the descriptive type of evaluation system should be changed or banned, and an objective type of evaluation system should be implemented. This type of objective rating system has many advantages over the descriptive type of rating system. The learners' ability to think critically and logically reason is better revealed when they work on an objective exam format and paper consumption may be less in this exam arrangement.

### Advantages of digital or e-system of education over printed papers education

E-Systems can hold thousands of e-books in a small storage limit, but large print and paper documents take up a lot of space. The price of e-books is lower than printed books because there is no cost for printing paper, beautiful covers, packaging, and shipping. E-books are easier to carry than paper books. The online education system has many advantages compared to old and traditional paper-based forms of education. Ultimately, all of this is related to our knowledge of e-education systems such as e-learning, e-writing, e-journals, e-reading, e-books, electronic publishers, etc. and everything related to Electronic Systems must stay away from paper and its waste. Thus, the implementation of electronic systems in the education sector brings huge, revolutionary changes in the fields of natural resources and environmental protection. This revolution will save trees, forests and protect the environment. In addition, the rate of deforestation will decrease more slowly. This revolutionary startup is protecting the environment by preventing deforestation and saving natural resources from further destruction. The education

system plays an important role in environmental degradation. If digital education methods are deployed, the education system will play an important role in protecting the environment. This action or formula depends on the government's promulgation of laws and the monitoring of the education sector.

## Conclusion

Trees are the lifeline of the planet, and their conservation is vital to the survival of Earth's diverse ecosystems. The appeal "Save the Trees, Save the Earth" is an urgent call for action against the reckless exploitation of natural resources. This reminds us that every tree saved is a step towards a healthier and more sustainable planet. By adopting sustainable practices, leveraging technology, and promoting a global commitment to conservation, ensuring the future of the planet for generations to come. Trees are the protectors of the Earth. It is a collective responsibility to ensure their protection. By protecting trees, we not only protect the environment but also ensure the future of the planet. Thus, according to important analyzes and calculations related to the production of paper from trees, the use of paper by a domestic individual, the production of paper will lead to environmental defects and the role of the education sector against environmental degradation. This article specifically focuses on the consumption, use and waste of paper by the education sector. The education industry has changed traditional methods towards complete digitalization. Then the environment will be protected and safe because the education industry is the number one industry that uses paper. There is no opportunity to go completely digital, at least to reduce paper consumption by eliminating the descriptive education model and introducing an objective education model. Paper is just a physical medium that can be used to communicate ideas, and it can be used to create a variety of learning materials, from simple exercises to complex textbooks. With population growth, the destruction of natural resources will cause more damage to humans and other living things. The world is in a period of destruction due to environmental pollution. The education system is developing towards digitalization and the use of paper by the education sector is decreasing, then the environment can begin to be protected. Only future employers and employees will then use

digitalization throughout the industrial sector, which can lead to the conservation of forests and many living organisms. Digital education including e-readers, e-books, online learners, e-publishers, and e-magazines is beneficial in protecting the environment. It is the fundamental duty of every citizen of the world to protect forests, natural resources, and the natural environment from degradation.

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