

# Footprint of Paper



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**Abstract:** *Before an innovation of paper, the learning process of knowledge was being done through Gurukul system in ancient India. The learned teacher used to teach all relevant knowledge to the group of disciples and particularly veda and upanishads, through an oral practices and this continued in this land for thousands of years. Later, as the civilization progressed the technique of writing was invented by means of inscription and recording of events on clay moulds, stone slabs, wall, and metal plates etc and further improvement achieved through writing it on broad leaves like palm leaves and clothes which were suitably treated one to withstand the decay and attack from insects and the impacts of climate changes. Veda rhymes, Ramayana, Mahabharata, were all first recorded in many broad leaves like palm leaves. Raja Maharajas were passing instructions, orders and agreements through writing it on clothes. This system continued for many centuries, not only in our country but also in many parts of the world.*

*As the civilization further progressed, the method of communication developed with the invention of paper.*

*Paper derives its name from the ready plant ‘ Papyrus’. The first writing paper is believed to be produced by the Egyptians. However the complete defibering which is the characteristics of true papermaking is believed to be originated in China as early as 100AD.*

*The historical developments of these inventions lead to the modern paper industries.*

## Introduction

Footprint of paper is titled here to denote the manufacturing stages of paper through recalling the past in chronological order for the analysis of papermaking.



Figure 1: Paper foot print- (Google search)

(\*1). The significance of paper and paper industry products to modern life is obvious to everyone. No manufactured

product plays a more meaningful role in every areas of human activities as paper. Paper provides the means of recording, storage and dissemination of information.

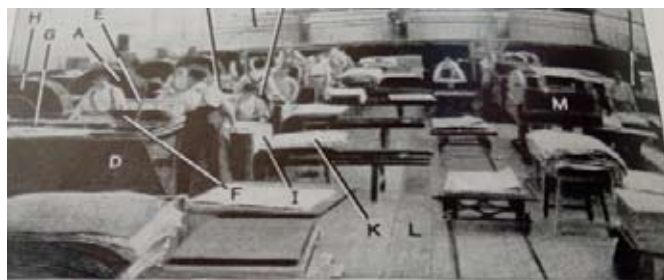


Figure 2: Handmade paper machine (\*2)

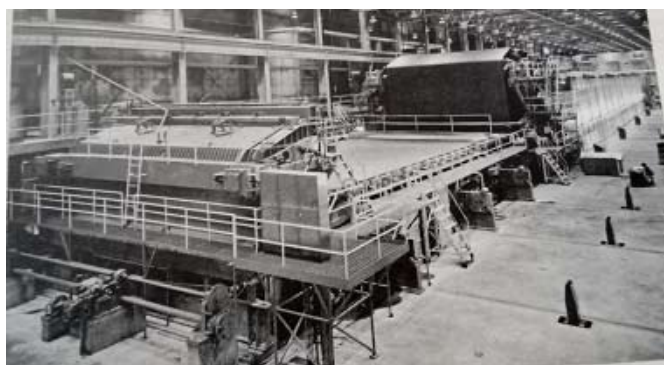


Figure 3: Modern paper machine (\*2)

## Paper Day write-up

Virtually all writing and printing are done on paper. It's the most widely used wrapping and packing material and is important for structural applications.

The use and application for paper and paper products virtually limitless. New speciality products are continually being developed. At the same time, the industry is aware of inroads and competitions from other sectors notably plastics and electronic goods, for markets traditionally served by papers.

Aside from the output of products and services, the pulp and paper industry provides employment for vast number of people and plays a vital role in the overall economy of any nation.

The historical developments of these inventions lead to the modern paper industries.

### The Myth around Paper making & ground reality

Some media talks of paperless world just on the reason that software technology make communication easy with is definitely a short lived thoughts. It can guide but it can't produce the products as the Paper does.

Electronic media in the larger interest of promoting their short time interest talk about paperless world is absolutely baseless.(\*3)

The writing habit on Paper, synchronises the finger, body and brain relationship and helps to maintain altogether a healthy body and sharpened brain.

The major myth of propogators against paper making are e-media and promoters of e-gadgets. They are making a false propoganda that the paper industry is causing 'nature imbalance' by using trees for making paperis a great myth and far from the truth. Actually the plastic and electronic goods are poisoning the environment by corroding soil and water. The innocent birds and animals get restless and the thrown out waste items are life threatening to them.



Figure 4: (Google Search)

When animals eat plastic, it can damage their intestines.

Another myth spread by some media is Paper Industry is 'using wood for making paper is the cause for the depletion of forest'.

#### Table 1: CONSUMPTION OF FOREST WOOD:

(million m<sup>3</sup> between year 1998 - 2000) (\*4)

1. Round wood. 284.1  
(Usually for structural applications)
2. Fuel and charcoal wood.261.1
3. Industrial wood22.9  
(Industrial process like transmission poles and sawn wood)
4. Sawn wood. 16.3  
(Mostly for domestic house consumption)
5. Pulp, paper and board. 10.6

#### (\*5)TECHNOLOGICAL DEVELOPMENT:

Those media that are blind to the fact that the state-of-art-of-technology has changed now and the scenario of making paper from forest wood resources are switched over to the other resources such as:

\*Wastepaper recycled furnishes.

\*Agro produced left outs after cropping like bagasse, wheat straw, rice straw, etc.

(\*6) Infact non-wood based paper mill are contributing over 70% of countries production and manufacturing an eco-friendly paper by converting waste into wealth and helping the conservation of forest resources to an extent of 20 million trees per year. Non - wood based paper mill which pre-dominently set-up in rural areas provide large scale employment and livelihood directly & indirectly to almost 40 lakh people and majority of those are from low income group.

The share of recovered paper has a materioric rise from 7.1 in 1970 to 47.1 in 2015.

Compare to many developed countries recovery is still insignificant such as Germany 75%, Sweden 70% and Japan 65%.

The increasing the use of renewable raw-material helped the sector in number of ways, as it lowers,;

- The burden of scared wood as raw-materials.
- Reduces the import bill of wood pulp.
- It saves energy, chemicals, water used on production basis and thereby consideration in cost reduction.

- Provide employment in recycling sector.

#### (\*7) CONTRIBUTION OF PAPER INDUSTRY

Currently there are 450 Paper mills operating in the country

Table 3:

1. Annual turnover of paper industry..... Rs. 60,000/- crore.
2. Contribution to exchequer. INR..... Rs. 45,000/- crore.
3. Direct Employment..... 5 lakh.
4. Indirect Employment.....15 lakh
5. The growth level of paper industry:
  - Newsprint.....2.585 million tonnes of market sharing growth at 2.06% PA.
  - Writing & printing.....5.065 million tonnes of market sharing (uncoated & coated). growth at 4.86% PA
  - Packaging paper /.....8.7 million tonnes of market sharing (paperboard/duplex & others) growth at 8.31% PA
  - Tissue paper..... 0.65 million tonnes of market sharing growing at 17.75% PA
6. Many paper converters packaging units are serving the society today are sourced by paper industries.

(\*8)Table 4: Geographical distribution of paper industries:

#### State. Number of mills market sharing

State	No of Mills	Market Sharing
* Andhra	19	13%
* Maharashtra	63	18%
* Andhra	19	13%
* MP	18	6.6%
* Karnataka	17	5.5%
* Gujarat	55	35%
* UP	68	9%
* Odisha	6	6%
* Tamilnadu	24	
* Punjab	23	
* Hariyana	18	
* Assam	1	

## Conclusion

Paper industry is an evergreen Industry and its products are used by common man both educated and uneducated and poor and rich equally in the society and infact it is one of the common household product required from study room to kitchen and toilet room equally.



Figure 5: (Google Search)

(\*9) The growing demand for paper and paper products are due to,

- Increasing education and literacy
- Growth in FMCG/ Pharma/ HealthCare sectors.
- Need of quality packaging.
- Demand for eco-friendly packaging.
- Continuously increasing ready to eat and drink food and beverages and stationeries are a few important reasons to make paper & board industry evergreen among all the industrial products.



Figure 6: Developed Paper Products

## References

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 Anonymous collections.- Google Search(Figure 1,4,5,6)