

# Papyrus to Paper

## (A saga of civilisation)



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### Introduction

Language and Paper are part and parcel of day to day life for communication all time along to register a thought. It is a brief pass that Software technology made communication easy and some media people talk of paperless world which is difficult. In my state some critics used to say, computers can guide but cannot plough for a crop.

#### The saga of 6000 years

So and so with Paper & Soft copy communication. In addition to adding cost, this can be disrupted by any means of failures in signals or satellite communications.

There is a novel written by Dr. Robin Cook, which describes relation between human Chromosome number six and Development genes particularly associated with language and speech. No matter where a child is born, initial wording is similar followed by learning speech and later script. A solar storm can disrupt the communications and computers but scripted on paper or papyrus live for decades and generations.

Who can say that we make paperless world when we accept "Old is Gold".

So many theories about ill effects of network towers, radiation from electronic gadgets, ultra-violet radiation effects due to sitting before computers and phones for

**Abstract:** *Rishimunis used to transfer knowledge of Vedas and Mantras in Sanskrit from generation to generation through "Guru-Shishya Parmapara" by reciting and recapitulating, passing to next generations. Because of individual memorizing skills this knowledge used to shrink. Hence, it is required to register, document this knowledge of Vedic narrations and epics of Upanishads, Puranas, valuable thoughts etc., in the form of Literary works in storage media.*

*The saga of encryption began with clay tablets, carvings on stone and scriptures on metal plates for example Tamra Sasanams (Inscriptions on Copper Plates). Then Raja/Maharajas used cloth as medium for writing messages to send invitations or pass on orders to public as Raja Sasanam.*

*They found ultimate solution to register knowledge for generations in the form of Papyrus first followed by paper and books later.*

*This journey is unstoppable and paper is only viable and eternal solution for storing knowledge. This paper discusses essence and essential uses of paper in every part and every aspect of human that needs replacing harmful plastics, radiation effects with software and all writing and packaging replacements. Paper is soul and human touch for effective communication.*



Fig. 1: Talapatragrandha



Fig. 2: Papyrus scriptures



hours together. Now a pandemic compulsion is work from home sitting before computers altogether. This could be realization of how paper work is much better than sitting before computer and straining our necks.

### Role of Paper Industry in Environment Protection

National Forest Policy envisages that every integrated pulp and paper unit shall generate their forest raw material by captive plantations to meet their needs. No allocation from National Forests except for rare cases of old paper mills that are deserve and conserve them.

Maximum Paper mills which are doing lot of service during Pandemic time by supporting packaging delivery systems like Amazon, Flipkart and many other to render safe home delivery for senior citizens and public in general. I believe that if Packaging paper is not there, no government would have tackled Corona problem and movement of people for essentials more effectively.

### Myths and Facts about Paper and Environment

Electronic media in the larger interest of promoting their short time interests talk about Paperless transactions and no print documents as e-mails. For hearing everything is OK. But ground reality is different if we compare environment and forest related issues

with paper production and electronic goods or plastic packages. Plastic is worst part of pollution to soil and radiation is invisible time bound ill effect on human health or birds.

Some Hippocratic so called environment savers make a foul cry that Paper industry is eating away forest resources and talk about "SAVE FOREST". Do they stop buying wooden furniture for their home needs? What is the reality of quantum of wood/Bamboo used for paper making and lumbar used for furniture? It may be not even 10% and about 80% of paper is made from recycled paper. Can the wooden furniture is made by recycle? But Paper industry can make wood replaced furniture with paper ingredient as mentioned in.

It is absolutely true that most of the wood material is consumed by Lumbar/Timber and Sawn wood industries for furniture making, and Ply wood industry related to construction works including particle board industries. We observe that even many chemical industries with the name of regional development centred in underdeveloped areas resort to using firewood for their boilers and thermic fluid heaters. Many countries with well versed technologies failed to prevent enormous loss of forest due to fires broken in summer. No party would speak of "Podu Cultivation/ Shifting cultivations" still practiced in many backward areas.

### Major industries which use Forest material as their raw materials:

- Pulp and Paper Industries: ...
- Match Industries: ...
- Timber and Sawn Wood Industries: ...

- Plywood Industries: ...
- Particle Board Industries: ...
- Fibre Board Industries: ...
- Biomass Power Generation Industries: ...
- Oil and Biodiesel Industries

About 40 years back we used to see occasionally wax coated paper match sticks. Now where are they gone?

With the mounting environmental pressures maximum paper industry turned its processes by switching over from forest based raw materials to recycle paper industry. We have not seen any other industry like Lumbar(Furniture) or Plywood industry migration from traditional wood based raw materials to Non-conventional or recycle based materials to reduce forest based raw material consumptions. More over neither of these industries adhere to captive plantations to meet their needs like paper industry alone. Why the biased attitude?

Pulp and Paper industry mostly in the view of capital industry stature pays large sums of revenue to Government in terms of taxes. It is true that pays more are more visible to law.

Furniture industry is distributed in such a small segments of household manufacture that manufactures

are invincible for law makers but sellers are visible everywhere for buyers.

It is our anguish that every industry treated alike.

All forest based industries are making money but we are on the other hand serving nation. It is the Kraft paper industry in Gujarat probably, which has contributed kraft paper based detachable beds for patients to enable doctors to give more berths to pandemic torn patients. How come our industry is short sighted which is showing so much social responsibility.

In this context we also would like to enlighten that new and forth coming technology is paper based furniture to replace wood. We are indirectly reducing pressure on furniture making industry also. This paper is called Honeycomb paper and very much popular in China and few other countries. Advantages are easy to mould, easy to fold and durable for even ten years with green label. I refer the following websites/ clippings for this Honeycomb paper and furniture technology (Fig.3):

1. Honeycomb paper making machine description (Ref.4)
2. Honeycomb paper usage for foldable furniture (Ref.5)



Fig. 3: Honeycomb Paper and Furniture

Fig. 4: Covid time hospital beds and chairs with kraft board.

## Paper Day write-up

Not only about furniture, you eat food, we give bio-degradable paper plates, you drink tea, coffee, or cold beverages, we provide bio-degradable paper cups and tetra pack cartons. Paper and Paper products are essence and prime importance of day to day life and in every function from food to decoration.

For cold storage and hot storage barrier coated paper is gaining more and more significance.

Some time back I shared a video clip in ippta face book explaining use of straw and waste paper to produce crockery and spoons, plates etc which are durable for longer periods unlike disposable items. This is some kind of thermal moulding process like other extrusion processes in plastic industry but with bio-degradable and waste material.

### Auxiliary/ Paper Chemical industry role in Forest Protection:

Along with Paper industry, paper chemical industry like us also playing a major role in preserving forest based raw materials and preventing harm to environment.

We, Paper chemical industry are contributing to paper industry and forest preservation in the following manner.

1. Paper chemicals industry supply environment friendly wood, bamboo and bagasse storage preservatives to suppress decay from white ants and many other fungal attacks.
2. We contribute to pulping by providing alternate pulping aids avoiding use of pesticide category anthraquinone base to increase pulp output and reduce uncooked rejects.
3. We supplement with chemical inputs by offering reduced carry forward of alkali and improved wash efficiency of pulp thus improving bleaching load/pollution load.
4. We support paper industry with eco-friendly chemicals to improve retention, drainage and paper strength so that rich fibre of import substitute/wood based is conserved.
5. We help paper and packaging industry by providing technical knowledge for food packing paper grades, barrier coating techniques, biopolymer laminations for water proofing, viable and durable carry bags of adequate strength replacing single usage plastic and various types of plastic bags.

6. Paper industry made value added paper products are replacing every aspect of plastics like beverage packing tetra pack cartoons to even water bottles made out of paper. Of course Paper cups are normal in use.

### Role of Maxim in this eco-friendly Saga:

1. We are the first from paper chemical industry to induce high standard, WHO approved Sanitizers for various applications and treatment of plant premises.
2. We have developed technology to make food packaging cartoon Kraft paper odour free for delivery purposes of pizza etc.
3. Our innovations and solutions are new resolution from our end to coup up with Odour problems and cracking problems of packaging paper supplied by paper mills.
4. We bend any extent to lend support to paper industry and environment.

I read a very good article by one of our Senior Paper industry professional with title of "Another Idea". It is thought provoking and put the facts before us.

Some decades back people used to feel Mineral water bottle a luxury and foreign culture. Now it appears everyone during travel carry a mineral water bottle to safeguard his/her health. We can spend less money for mineral water than more money for medicines later.

Same with tissue paper usage. In countries and people abroad everyone carry soft/sanitary tissue for hygiene purpose. In that article nice comparison was made, how much water and soap consumptions can be reduced with use of tissue paper by saving valuable water to nation and farmers.

### Plastic and Plastic replacement with Eco-friendly bio-plastics and Barrier Coated paper bags:

Some callous attitude of a few individuals leads to severe damage to environment and animal digestion systems. I have seen in few places even in posh localities, people using very thin polyethylene bags to pack some food items like chutneys, karris in micron sized thin bags. Some time these bags got melted and after finding leakage, people throw it on road leaving it as food to innocent animals, which instantly swallow

polythene cover along with food with incapability to separate both. It is inhuman and very pathetic and callous attitude of educated youth. Is there no solution for it?

Amazed what is happening in this country which do consider Cows as sacred animals and turn blind-eye when cows eating plastic in garbage (Fig.5). Very pathetic issue.



Fig. 5: Cows eating plastic bags.

pulping and later to waste paper processing even inclusive of elaborate deinking plants. Paper industry and Paper chemical industry are supporting each other to meet the challenges and adopting new technologies to serve society and save forests. We lend our helping hand to all environmentalists in our endeavour to save forest and environment.

We Paper Industry provided Paper Boards beds to hospitals during Pandemic of Corona crisis to meet the need of society requiring no wooden furniture including chairs.

Easily disposable, no contact paper bags, cartoons, containers, paper cups so many other things helped society to prevent spread of Corona virus from person to person. Paper based disposable plates helped hotels to run their business particularly street vendors.

We while concluding express our gratitude to end users of various products. We appeal law makers to consider equal laws to all. At the outset we follow “Live and Let Live” with forests and sustained growth of Paper industry.

We paper chemical people developed barrier coating chemicals, which are quite resistant for liquid food packing and not harmful even animals swallow it unknowingly.

We are doing some considerable work on Starch + PLA (Poly Lactic Acid) based bio-plastic bags easily digestible and bio-degradable in soil. Government hopefully should implement non-use of thin polyethylene bags and replacing same by barrier coated or bio-polymer based bags developed. Some incentives may be given to meet the cost with plastics by less taxes and support for these grades.

### Eco-friendly paper containers for food



Fig. 6: xxxxxxxxxxxxxxxxxxxxxxxxx

### Conclusion

We keep faith in our efforts to save forestry and environment by saving fibre with new and upgraded technologies. Paper industry is highly capital intensive requiring large sum of investment either to start or modify existing system. Paper industry people on the other hand to coup up with forest policies and pollution norms to save trees modified entire plant and machinery to switch over from wood based to agro-based raw material

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