

# **An economic analysis of handmade paper industry under Khadi and V.I. Sector**

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## **ABSTRACT**

Consumption of paper is considered an important indicator of growing civilisation in the world. The per capita consumption of paper in India is about 2 to 2.3 kg. per annum whereas in advanced countries like U.S.A., Canada, U.K., Japan it is about 50 kg. to 200kg. per capita. With the increase in industrialisation, literacy and development, the demand of paper will increase definitely in India too.

Handmade Paper is a prominent village industry based on decentralised production and rural technology. It is popular for its sophisticated look, exquisite beauty, strength, permanency and personalised touch, taste and texture. Despite the advancement of large scale paper technology, Handmade Paper Industry has large scope of employment with very less investment. It uses best raw material for quality paper. Handmade Paper Industry has a solution to the problem of energy and pollution. Its other qualities are that it saves deforestation and has less gestation period. Some special varieties of Handmade Paper have an estimated life of more than 100 years.

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### **Contribution of Handmade Paper Industry to the total production of Paper/Board in the country :**

As against the achievement of production of paper/board around 18 lakh metric tonnes valued at about Rs. 1400 crores during 1989, it is visualised by an Expert Group that by the turn of the century, the requirement of paper/board would be around 35 lakh metric tonnes besides newsprint around 10 lakh metric tonnes.

The contribution of handmade paper industry to the national production of paper stood @ 0.5 percent of the country's total requirement of paper, a long time. However, according to recent statistics, HMP's proportion is only 0.37 percent of the requirement of paper. The production of handmade paper during 1989-90 was

around 7,000 tonnes valued Rs. 7.24 crores. With the adoption of intermediate technology and by making use of scattered non-conventional raw materials which otherwise would go waste such as agricultural residues etc., the handmade paper industry can contribute much more in the production of paper/board and can play better role in national economy giving employment to the needy people at their doorsteps.

In view of the problems faced by big paper mills in achieving capacity utilisation like shortage of raw-materials, shortage of power supply, huge capital

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investment alongwith long gestation period etc., it is estimated that by 2000 A.D. there will be a wide-gap between the demand and supply of paper in the country. It is here that Handmade Paper Indurtry can play a vital role in bridging up the gap.

## ANALYSIS OF HANDMADE PAPER INDUSTRY

### Strengths :

The strength of Handmade Paper Industry lies in the following facts :

The per capita investment in Handmade Paper Industry is Rs. 10,000/- to Rs. 18,000/- depending on the size of the unit whereas the same for the medium and large paper mills is Rs. 10.00 lakhs to Rs. 25.00 lakhs.

The wage content as percentage of production cost in Handmade Paper Industry is 25% to 30% where it is 10 to 15% in paper mills. So, Handmade Paper Industry is labour oriented.

Handmade Paper Industry uses non-forest raw materials like cotton-rags, waste paper etc., whereas Paper Mills use forest Based raw materials like Bamboo, wood etc. For every tons of production in Paper Mills about 2.5 to 3 tons of Bamboo and or wood are consumed by Paper Mills. Thus the Handmade Paper Industry preserves the forest cores and the environment.

The Paper Mills cause considerable pollution of air, land and water through toxic effluents and gaseous emissions. The Handmade Paper Industry on the other hand causes hardly any pollution of land, water or air.

The machinery and equipment of Handmade Paper is completely indigeneous where as the Paper Mills import 15% to 30% machinery.

### WEAKNESS :

Lack of professional skills among the implementing agencies in the management of production and sales, quality maintenance/control, lack of proper co-ordination between implementing agencies, dearth of skilled labourers, dearth of adequate strength of skilled work-force, inadequate technologies of certain processes such as drying process especilly during monsoon season, lack of proper monitoring systems including uptodate information data are some of the weaknesses of the Handmade Paper Industry.

### OPPORTUNITIES :

Liberal terms of financing by KVI Sector as well as regular technical support, Government support in the forms of various fiscal concessions like Excise Duty Exemption, sales tax exemptions, Purchase preference of Handmade Paper Indurtry products against reservation of certain varieties of paper by State/Central Government for the KVI Sector, production of certain exclusive varieties of paper not manufactured by Paper Mills for which there is a considerable demand, Raw materials support, training facilites, benefits of S&T and introduction of improved technology like C.M.V. for enhancing productivity are some factors in favour of Handmade Paper Industry.

Being job-oriented, low cost in comparison to Mill Sector, pollution free as well as preserver of environment, this industry has ample scope and opportunity for rural masses for employment generation throughout the country.

### THREATS :

Non-availability of Raw-materials regularly and at moderate prices due to competition of big mills which absorbed maximum raw-materials by purchasing at higher rates, inability to execute orders for bulk supply of paper in proper time, lack of adequate publicity, marketing support at par with the Mill Sector are some main problems in the way of the rapid progress of the industry.

Table—1

Performance of Handmade Paper Industry During Last Five Years :

Year	Production (Rs. lakhs)	Sales (Rs. lakhs)	Employment	
			No. of persons	working units
1985-86	439.17	463.01	5010	255
1986-87	504.58	531.45	4810	261
1987-88	571.42	545.05	5340	270
1988-89	594.57	639.37	5269	287
1989-90	723.76	748.62	5300	310

**Table—2**  
**Export of Handmade Paper**

	Y e a r		
	1987-88	1988.89	1989-90
1. Total production (Rs. lakhs)	571.42	594.57	723.76
2. Export share (KVIC) (Rs. lakhs)	20.00	45.00	70.00
3. Approximate Export Share of Handmade Paper Units not assisted by KVIC (Rs. lakhs)	15.00	35.00	50.00
4. Total Export of Handmade Paper (Rs. lakhs)	35.00	80.00	120.00
5. Percentage of Exports Countries to whom exported	66%	13.7%	17.2%
	: USA, Sweden, Germany, Japan, Australia, Canada, Spain and Italy.		

#### VARIETIES OF HANDMADE PAPER EXPORTED

1. White deckle edged drawing paper.
2. Drawing paper in different colours.
3. Water mark paper
4. Marble paper in different thickness.
5. Bond paper.
6. Wool paper.
7. Gunny paper.
8. Algee paper.
9. Tea paper.
10. Grass mottle paper.

The States leading in the development of HMPI and their contribution to the total production of Handmade Paper Industry is shown below :

**Table—3**  
**States Leading in the Development of HMPI**

Name of the State	Production of HMP (in lakhs) during 1989-90	Percentage of total production of paper during 1989-90
1. Uttar Pradesh	260.00	35.9%
2. Maharashtra	101.66	14%
3. Tamil Nadu	81.06	11.2%
4. Gujarat	47.58	6.6%
5. Rajasthan	51.54	7.1%
6. Pondicherry	37.73	5.2%
7. Haryana	27.58	4.1%
8. Kerala	20.53	2.8%

The main reason for the good show of the above States in Handmade Paper Industry is the fact that the respective State Govt. have extended a good deal of support for the Industry by encouraging their departments to purchase their requirements of Handmade Boards, Files, File Boards, Paper etc. from Handmade Paper Units. In States like U.P., Rajasthan, Maharashtra there has been long tradition of Handmade Paper which has created a bases for the flourishing of Industry.

#### Reasons for the comparatively poor performance of Handmade Paper Industry in other States

The implementing agencies in other states mainly State Khadi Boards have not been evincing as much interest in the promotion of Handmade Paper Industry as the states listed above. In many of the states, there is good potential for the growth of the Industry as the raw-materials like cotton rags, waste paper etc. are available in sufficient quantities for the establishment of a sizable number of Handmade Paper Units. The implementing agencies have to tap the State Gov. Departments for orders for the supply of Handmade Paper, Stationery materials and plan the establishment of Handmade Paper Units for production and supply as per market demand. The climatic and geographical condition in some States like Himachal Pradesh, Jammu and Kashmir, Assam, Manipur, Nagaland etc. are not conducive to the growth of the Industry.

#### Economics of Handmade Paper Industry :

The Handmade Paper Industry is a Village Industry based on decentralised production providing employment to the poorer sections of the rural mass. If 25 small handmade paper units are set up, it would generate direct employment to about seven hundred people in rural areas involving capital expenditure of Rs. 1.10 crores and working capital of Rs. 50.00 lakhs to produce paper/paper board valuing Rs. 1.70 crores. The contribution of such Handmade Paper Units to village economy is positive. The Handmade Paper Industry when compared with the paper industry in large scale sector, is less capital and energy intensive and also free from pollution hazards. Nearly 93% of the world production of paper and board and newsprint is wood-based. In India, forest-based raw material such as wood and bamboo meet 70% of the demand of paper industry in

the organised sector. But, this resource is depleting at an alarming rate. Thus, the paper industry in this sector has become a source of serious threat to the entire eco system. It is a hazardous industry adding to the water, land and air pollution.

The Handmade Paper Industry for centuries is famous for its artistry, strength, durability, feel and personalised touch. Although it is bit costlier than mill made paper, the extra cost is nullified if the benefits of social cost is also taken into account and in the long run, considering various aspects in totality, it would work out economical.

Table 4 gives the data on the study of various aspects of Handmade Paper Industry.

Table 4

Study on Various Aspect of Handmade Paper Industry

1. Grassroot Investment on Plant on per tonne, per annum production.	Rs. 10,840
2. <b>Employment generation :</b>	
A) Employment on investment of one crore rupees.	
i) Modern units	910
B) Employment on each thousand tonnes of production.	1,000
3. Import of Machinery and Equipment.	Nil
4. <b>Resource input for each tonne of production :</b>	
A) Forest based materials, or woods (kg).	Nil
B) Coal (kg)	100
C) Chemicals (kg)	70
D) Electricity (Kw.H)	150
E) Water (Cu. Metre)	38
5. Chemical treatment on fibres Drastic	Negligible
6. Distribution of capital	Cent%
7. <b>Environmental Impact :</b>	
A) Ecology	Nil
B) <b>Pollution :</b>	
1) Water	Insignificant, No toxicity.
2) Land	Insignificant
3) Air	Nil

Ever since Ts'alun invented the art of Handmade Paper making, it is continuous process of development. Despite the impact of the industrial revolution in the west, the art of handmade paper making is breathing freely even in the most developed countries like U.K., U.S.A., Japan, China and France etc. keeping it's soul intact. The craze of the handmade paper has gone so high that twenty Universities in U.S.A. have introduced and adopted this art as a hobby and in less than a decade and a half, the handmade paper has spread from the activity of a handful youths to a country wide sensation in U.S.A.

India is the leading country today in world as regards the production of handmade paper. Major concentration of the handmade paper units is in Uttar Pradesh which contributes more than 35% of the total production of the country. The present level of production in the country is about seven thousand tonnes valuing Rs 7.24 crores. It is produced in the rural areas giving employment to more than five thousand rural people. It also saves about 20,000 of dry forest based material which is equivalent to about 6.00 million bamboos or 5.00 million young eucalyptus trees.

The principal raw material being used by Handmade Paper Industry is cotton rag which is one of the best raw materials with 92% alpha cellulose to produce different varieties of quality paper, viz drawing paper, superior quality card sheets, degree/diploma paper, superior file covers and folders, bond paper for permanent record, decorative and fancy paper, archives paper, postal paper, filter paper, wall paper for interior decoration etc. Besides, this industry, alongwith these superior quality papers, also produces value-added items like greeting cards, deluxe stationery, fancy letter heads and envelopes, slogans and posters printed on handmade paper as end use products etc.

According to demand prejections, the overall demand of paper is expected to rise from existing 18 lakhs tonnes (1988-89) to about 35 lakh tonnes by the turn of this country.

**Source :** Why Handmade Paper - Publication of U.P. Khadi and V.I. Board.

Because of the continued low capacity-utilisation of paper mills, there is always shortage of paper. Thus, there is immense scope for the expansion of this industry in the decentralised HMP Sector and KVIC can play a vital role by providing different orders of handmade paper adopting intermediate technology and utilising agricultural fibres providing gainful employment to rural masses.

Initially, emphasis was laid in the common varieties like writing and printing papers (from waste paper), boards and drawing paper (from rags) and blotting paper (from soiled old rags) and thus marketing was severally restricted.

However, manufacture of writing, printing and low grammage paper is not economically sound and the emphasis was shifted to manufacture non-competitive, decorative, commercial grades of paper to be sold in the competitive market as artistic and aesthetic value provided always an edge for the handmade paper industry.

#### VARIETIES OF HANDMADE PAPER

1. Art and Engineering drawing papers
2. Permanent Document papers
3. Water marked certificate papers
4. High grade stationery greeting cards etc. of fancy colours.
5. Album papers
6. Filter paper
7. Blotting paper
8. Partition board
9. Electrical insulation board and paper
10. Cover paper
11. File boards/File Covers
12. Grey boards
13. Straw boards

The performance of handmade paper industry under KVI Sector over the last two years are as follows :

Year	Production (Rs. lakhs)	Sales (Rs. lakhs)	Employ- ment (No.)	Earnings (Rs. lakhs)
1988-89	594.57	639.37	5269	166.13
1989-90	723.76	798.62	5300	193.74
Increase	+21.7%	+17.1%	+0.6%	+16.6%

The handmade paper industry under KVI Sector is concentrated in the following States; Uttar Pradesh (36%), Maharashtra (14.0%), Tamil Nadu (11.0%), Gujarat (7.0%), Rajasthan (7%), and Pondicherry (5%), Haryana (4%), Kerala (3%).

#### MARKETING STRATEGY FOR HANDMADE PAPER

1. Formation of Marketing Federation of All India level as well as of State level for exploiting marketing avenues of various handmade paper products and arrange raw materials, equipments, utilisation of S&T result and such other matters which are considered for optimum utilisation of production by maintaining quality.
2. Arranging marketing of value added handmade paper items like Greeting Cards, Calendars, File covers and presentable new products throughout India as well as introducing exportable items for developing the market of hadmade paper in abroad.
3. Involving unemployed youth including women, SC/ST/Minority communities, handicapped people in marketing of various handmade paper products and thereby generating more and more self-employment under KVI Sector.
4. Developing special designs for greeting cards through export designers involving good printers and other specialised agencies.
5. Conducting Market Survey to know the competitor and to assess the marketing demands in India and abroad.
6. Besides use of rags and waste paper, exploiting such other raw material like sabai grass, rice straw wheat straw for manufacturing of handmade paper and thereby saving deforestation and maintaining ecological balance.
7. Arranging training for rural masses particularly for conversion items like paper cups, paper plates, paper envelopes, exercise books etc. and thereby generating self-employment, for such trained person including men and women and persons of weaker community.

8. Increasing number of handmade paper units all over India for expanding production of handmade paper items matching to the increasing demand paper.
9. Improving quality of the paper by giving all technical assistance to the production units and providing regional testing facilities as measure of quality control.
- 10 Reviving all the sick units in co-ordination with marketing federation etc.
11. Exploiting all avenues for exporting handmade paper in different foreign countries and to increase the present export of paper to the tune of Rs. 5.00 crore in the years to come.
12. Giving stress on forward and backward linkages, low cost high impact and low cost practical consultancy for all round development of handmade paper products.
13. Arranging rewards as a token of appreciation to all concerned deserving individuals as well as federation, women organisations and social organisations for their active participation and involvement in achieving the desired target of good quality production and Sale of Handmade Paper particularly greeting cards etc.