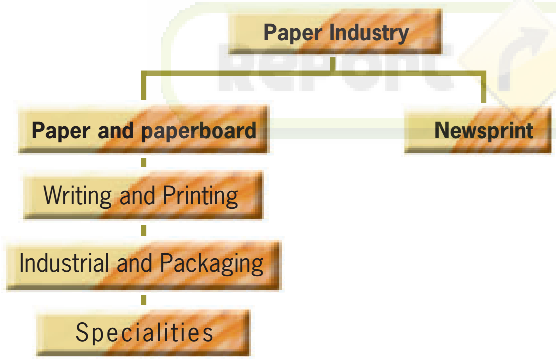
Management's discussion and analysis

INDIA'S PAPER AND PAPERBOARD SEGMENT HAD AN ESTIMATED TOTAL EFFECTIVE INSTALLED CAPACITY OF 6.15 MN TONNES IN 2002-03

Global paper industry overview

The paper industry is cyclical, influenced by economic growth, industrial production, promotional expenditure, population growth and supply dynamics.

The global paper industry can broadly be divided into:



The writing and printing segment accounts for 32 per cent of the global paper consumption while packaging, speciality and newsprint accounts for 50 per cent, 6 per cent and 12 per cent respectively.

Global demand

The global paper and paperboard market is dominated by North America, Western Europe and Asia. Asia accounts for approximately 32 per cent of the global paper consumption while North America and Europe account for 31 per cent and 28 per cent respectively. Asian countries have experienced higher demand growth due to higher economic growth (7-10 per cent per annum).

The World Paper and Paperboard Demand is expected to reach 402 mn tonnes by 2010 at a CAGR of two per cent.

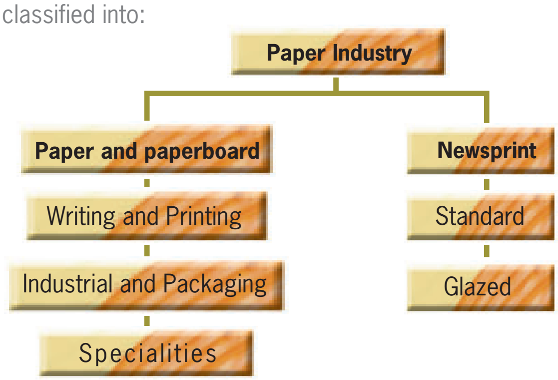
Projected global demand

		(In mn tonnes)
2000	**2005**	**2010**
313.3	356.4	402.0

Source: Jaakko Poyry

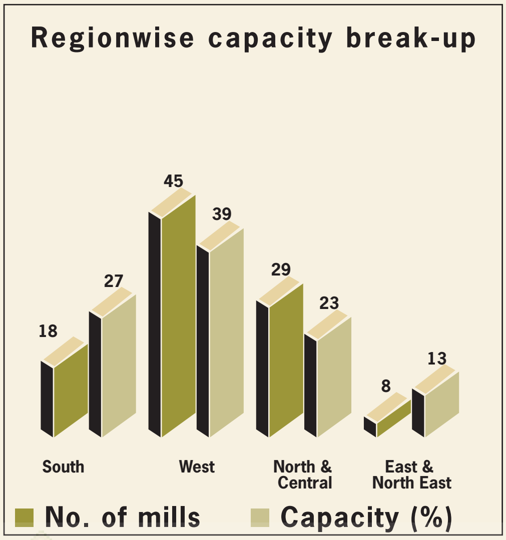
Indian scenario

India is among the top 18 global paper producers and top 15 paper consumers. Its paper industry can be broadly classified into:



India's paper and paperboard segment had an estimated total effective installed capacity of 6.15 mn tons in 2002-03, with writing and printing paper accounting for close to 39 per cent, compared to industrial paper (57 per cent) and speciality paper (4 per cent).

The structure of the Indian paper industry is a legacy of past government policies, which favoured small capacities. As a result, highly fragmented mills (under 20,000 tpa) account for 60 per cent of installed capacity. The total number of mills is around 900, with capacities ranging from 1 to 600 tpd.



Indian demand

India's paper consumption at 5.05 mn tpa accounts for 4.7 per cent of the Asian and 1.5 per cent of the global paper consumption. India's per capita consumption was approximately 4.5 kg compared to the world average of 53 kg.

India's paper and paperboard demand, growing at 6 per cent annually, is expected to accelerate on account of improved socio-economic factors, favourable demographics and increasing user sophistication. As a result, domestic paper and paperboard demand is expected to reach 8.3 mn tonnes by 2010 at a CAGR of 7 per cent, while newsprint is expected to grow at 6 per cent CAGR.

Indian supply

India's effective installed capacity for paper and paperboard and newsprint (excluding closed mills) was 6.15 mn tonnes and 1.05 mn tonnes respectively.

Most mills are based in West India, though they are small and medium-sized. The majority of large-sized mills are located in South India, primarily due to a high demand derived out of a high literacy rate, closer access to raw material resources and proximity to consuming markets.

Nearly 40 per cent of India's pulp mills use wood as their principal raw material, while 32 per cent use agro-waste and the rest, waste paper (Source: ICRA).

Indian outlook

The Indian paper industry has demonstrated secular annual volume growth of 6 per cent, broadly mirroring its GDP growth. Despite a consistent rise in demand, the per capita consumption of paper in India is still a low 4.5 kg while South Asian and World averages are 11 kg and 53 kg respectively.

Jaakko Poyry, a leading paper industry consultant, estimates India's demand, at 7 per cent CAGR growing to 6.0 mn tpa by 2005 and 8.3 mn tpa by 2010. Interestingly, it has projected a supply shortage of about 0.7 mn tpa in 2010.

According to a study undertaken by ICRA Advisory Services, the consumption of paper will rise to around 7.3 mn tonnes in 2004-05, while production is placed at around 6.5 mn tonnes. This growing demand is not being met by a corresponding rise in capacities due to high capital costs and environmental constraints.

According to a recent report by CRIS-INFAC, the global demand for paper and paperboard is expected to rise at a CAGR of 5.8 per cent, even as capacity is expected to

India's increasing consumption

Segment	Growth rate 2000-'04	Growth rate 2005-'10	Growth drivers
W & P			
Creamwove	6.1%	5.1%	Textbooks, notebooks
Maplitho- SS	6.2%	10.5%	Publishing, office applications
Coated	8.2%	11.1%	High quality printing
Speciality	6.6%	7.9%	Tissue, labels, fax, etc.
Industrial	5.6%	6.2%	Packaging / FMCG
Newsprint	6.0%	6.0%	Newspaper

Source : SPB-PC, Cris Infac

increase by 2.1 per cent only, translating into enhanced realizations.

Within the overall projected growth rate of 7 per cent CAGR, segmental growth rates vary, largely determined by the end use of the product variety.

Opportunities

Writing and Printing: A growing literacy is expected to accelerate off-take. The government expects every Indian citizen to possess at least eight years of education by 2010 (Source: Department of Education). Besides, participation in higher education is expected to rise from 6 per cent to 10 per cent by the end of the 10th Plan period.

With government departments and directorates being increasingly computerised, the demand for desktop and laser printing is rising, increasing the demand for a specific variety of paper.

While offset printing paper is expected to remain the most in demand, cut-size paper is gaining importance in the context of increasing computerization and net connectivity.

The inflow of foreign investment in print and media is expected to increase the demand for quality paper produced by domestic paper houses.

The up-gradation of technology in the printing industry will impact the demand for paper. Plateless and digital printing will grow the demand for cut-size paper as 'print and distribute' evolves to 'distribute and print' and 'print on demand'.

Packaging: India's per capita consumption of corrugated boxes is just 1.5 kg while the global average is close to 15 kg and the US average 80 kg. According to a study, about 95 per cent of all products are packed in corrugated boxes in the US, an indication of the vast potential in the business.

India's Agricultural and Processed Food Export Development Authority (APEDA) has worked out a product-specific strategy for increasing agricultural exports to over Rs. 10,000 cr per year for six agro commodities – fruits, meat and cereals to name a few. The consumption of corrugated boxes in the food sector in India is less than 20 per cent as against over 35 per cent worldwide – an emerging opportunity.

Newsprint: India is ranked fourth in newspaper circulation in the world. It is expected that newspapers will remain relevant even in 2020 since electronic magazines or digital newspapers on the Internet are expected to be confined to less than 5 per cent of the country's population. Given that in a decade the literacy level has jumped by 13.17 per cent to 65.38 per

THE COMPANY'S ANNUAL POWER REQUIREMENT FOR BOTH THE UNITS IS AROUND 25 MW, OF WHICH 20 MW IS GENERATED CAPTIVELY.

cent (Census 2001), newspaper circulation shows attractive growth prospects.

Shop floor upgradation

APPM continues to demonstrate a commitment to stronger manufacturing standards, helping it compete better. During the year under review, the Company embarked on the following initiatives:

Unit: APPM

- Modification of the bleaching unit to introduce chlorine dioxide stage in place of hypo stage in one of the bleaching streets, thereby reducing pollution load and also improving paper strength and brightness
- Change in the head box of PM5 - improving quality, capacity and grammage control
- Improving chemical recovery from 91.7 per cent to 92.7 per cent in 2003-04
- Installation of DCS Control in Digesters to improve the cooking process
- Installation of modern centricleaners in PM3, leading to improved cleanliness in paper

Unit: CP

- Retrofit of the straw pulp washing system to reduce pollution loads at source
- Modification of PM1 for improved paper quality and higher production
- Re-build of PM2 wet-end to produce multi-layered paper with improved quality and functional properties

Energy management

The Company's annual power requirement for both the units is around 25 MW, of which 20 MW is generated captively. To reinforce its access to cheap and continuous power supply, APPM made a strategic investment in Andhra Pradesh Gas Power Corporation Limited, which entitles it to source 5 MW of power at a competitive price.

Rice husk, being abundantly available in the area, is being used to substitute a part of the high cost use of coal.

Quality

At APPM, quality obsession extends across functions, processes and management tiers. Much of this initiative is driven by a state-of-the-art laboratory, which helps analyze and address customer complaints, contributing to product improvement. This initiative covers end products as well as a multi-stage scrutiny of the various processes.

Research & Development

During the year under review, the Company extended its Research & Development to the following process improvements:

- Dedicated machine for alkaline sizing: Improved brightness, strength and permanence

IN A DIFFICULT INDUSTRY ENVIRONMENT, APPM STRENGTHENED ITS OPERATING MARGIN REDUCING INTEREST COST BY 4.4 PER CENT OVER THE PREVIOUS YEAR.

- Introduction of enzymes at the bleaching stage: Reduced AOX content in effluents
- Introduction of enzymes in stock preparation: Enhanced paper strength and reduced energy consumption
- Chemical addition to lime sludge: Reduction in oil consumption

Besides this, the R&D initiative was extended to product development, such as:

Hi-tech inkjet paper: Uncoated paper with low ink retention and low surface absorption, – ideal for ink-jet printing applications.

Cup-stock: Customized development for the beverage industry.

Surplus management

Being a highly capital-intensive industry, it is necessary to sweat every rupee in the business to the maximum – either through business operations or investment in revenue-bearing securities. In view of this, the APPM ensures that funds are never idled.

As a result, share holders' funds are invested to generated a reasonable rate of return through internal utilization and/or external investment in risk-free securities.

Revenue

The total income of the Company for the year 2003-04 was Rs. 462 cr compared to Rs. 425 cr in 2002-03, a growth of 9 per cent. The other income represents profit from treasury operations and miscellaneous income.

Margins

In a difficult industry environment, APPM strengthened its PBDT margins from 10.2 per cent in 2002-03 to 10.4 per cent in 2003-04 and net profit margin from 4.7 per cent in 2002-03 to 5.2 per cent in 2003-04.

This improvement transpired as a result of a number of initiatives:

- Rationalisation of input costs through newer avenues of raw material sourcing
- Rationalisation of personnel cost and increased productivity
- Increase in production volumes, enabling a better distribution of fixed expenses

The higher profits were ploughed into efficient fund management, which reduced interest cost by 4.4 per cent over the previous year.

Net worth

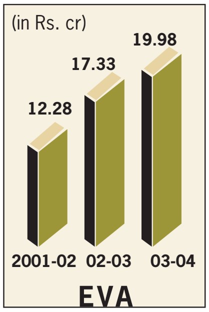
The Indian paper industry is a capital-intensive one. Success is determined by the return of capital employed, which should be higher than the fixed income-bearing investment opportunities available to

APPM EARNED A HIGHER RETURN ON ITS NET WORTH AT 7.9 PER CENT (AGAINST 7.2 PER CENT IN 2002-03), ENABLING IT TO REPORT A HIGHER EVA AT RS.19.98 CR.

investors. The Company earned a higher return on its net worth at 12.10 per cent (against 10.93 per cent in 2002-03) on a higher net worth base (by close to three per cent over the previous fiscal). This was the result of two initiatives, namely:

- Improvement in sales realization through a change in the product mix,
- Reduction in finance costs

This enabled the Company to report a higher EVA than the previous year.

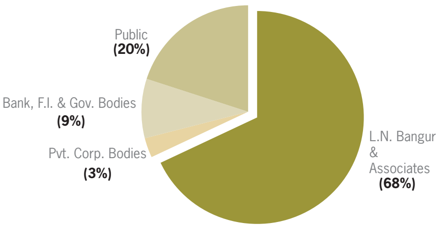


Capital

APPM's capital comprised 118,28,890 equity shares of Rs. 10/- each. The Company's equity doubled over a period of five years. The increase in equity was on two accounts.

- Rights issue in April, 1999, in the ratio 1:1 at a premium of Rs. 150 per share (when the face value of share was Rs. 100 per share)
- Shares issued (ratio 1:3) for the amalgamation of Coastal Paper Mills in January 2001.

In January 2002, the Company made a private placement of 14.5 per cent preference shares to ICICI Bank Limited in lieu of their holding in Coastal Paper. The Company redeemed these shares in 2003-04.



Loans and Interest

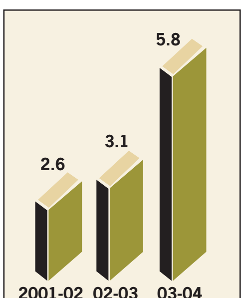
The quantum and cost of funds is critical to the survival of a capital-intensive business - the difference between success and failure. APPM has succeeded over the years due to its ability to mobilise requisite funds at the right time and at the right (read low) coupon rate.

In 2003-04, a decline in the cost of funds to the tune of 4.4 per cent was made possible through the following initiatives:

[APPM MADE AN INVESTMENT IN ANDHRA PRADESH GAS POWER CORPORATION LIMITED, ALLOWING IT TO ACCESS POWER AT A COMPETITIVE PRICE.]

- Swap of high cost loans with low cost foreign currency loans
- Prepayment of high cost loans
- Reduction of interest on public and trade deposits
- Availment of FCNR (B) and PCFC for working capital requirements.

This helped the Company maintain a healthy Debt-Service Coverage Ratio (2.02 in 2003-04) and reduce its average interest cost from 12.6 per cent in 2002-03 to 8.2 per cent in 2003-04 and strengthen interest cover from 3.1 to 5.8 times.



Interest cover (times)

Gross block

The size and quality of the gross block represents a paper manufacturer's competitive edge. The better the asset quality, the better the Company can sweat the asset and shrink its payback tenure.

At APPM, Gross Block/Turnover Ratio improved to 1.01 in 2003-04 from 0.96 in 2002-03. Every tonne of installed capacity represented Rs. 28,952 of the gross block, considerably lower than the prevailing replacement cost. Over the decade, the Company invested more than Rs. 170 cr in technology upgradation, efficiency improvement and pollution abatement. During the year under review, it invested Rs. 22 cr in altering the product mix at Unit: CP and into effluent equipment as well as quality and improvement in productivity at Unit: APPM.

The Company is now taking its investment program ahead with a Rs. 554 cr modernization-cum-expansion initiative, which will increase capacity and incorporate the best technologies in operations and effluent management by 2007.

Investments

The Company had an investment portfolio of Rs. 28 cr as on 31 March 2004. The bulk of this investment was in the form of 13,40,000 equity shares of Rs. 10 each of Andhra Pradesh Gas Power Corporation Limited. This investment entitles the Company to access 5 MW of power at a competitive unit price. The other investments are short-term in nature and comprise units in mutual funds.

OVER THE YEARS, THE COMPANY INCENTIVISED EARLY REMITTANCE FROM DEALERS WITH A CASH DISCOUNT

Inventory

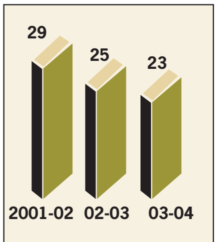
At APPM, as in the paper industry, inventory management is a critical driver of working capital outlay for a number of reasons:

- A very wide product range
- The primary raw material has to be obtained from diverse sources and stored for a long period
- The supply of coal, the other critical input, is regulated, prompting companies to maintain an adequate buffer

Over the years, the Company leveraged the power of IT to monitor active, high value and critical items of raw materials on a daily basis to eliminate the incidence of a production delay due to raw material paucity. For slower moving items, APPM updates the lead-time and the re-ordering levels based on supplier status and the number of sourcing points. Besides, the Company maintains a sufficient stock of imported and domestic waste paper, wood, coal and chemicals. On the finished goods side, APPM manufactures products only against a specific demand, minimizing end-product obsolescence.

Debtors

Generally, receivables management represents the last leg of the Company's transaction. A quicker recovery enables the Company to transact a larger volume of business with the same fund base, strengthening fiscal efficiency. A delay, on the other hand, could inflate working capital requirements, raising interest liability.



Debtors (days)

Over the years, the Company incentivised early remittance from dealers with a cash discount on the one hand and stipulated a penal clause with a high interest rate for dealers who failed to remit on schedule on the other. The effectiveness of the system is reflected in the numbers: close to 90 per cent of the sales from Unit: APPM enjoyed a receivables position of less than 10 days.

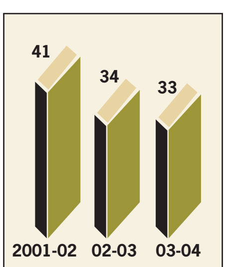
Creditors

At APPM, creditors' management is critical as two of the Company's most critical inputs – wood and coal – must not only be purchased in a large quantity but their corresponding credit period has considerably shortened. For instance, the payment cycle for wood declined from an average 21 days to 10 days while coal payments must be made in advance.

DURING 2003-04, VARIOUS INITIATIVES HELPED BRING DOWN THE COST OF WORKING CAPITAL FROM 12 PER CENT TO 5.9 PER CENT.

For the other chemicals and consumables, the Company instituted a system where suppliers are paid on time. Payments requested before the scheduled time-period are subject to a high coupon rate, an innovative measure that ensures that the Company enjoys the full credit period available to it.

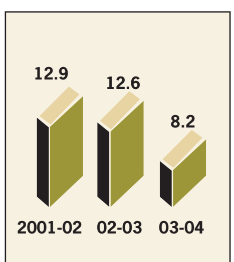
Thanks to these initiatives, the Company's creditors' position was at a comfortable 33 days of turnover in 2003-04.



Creditors (days)

Working capital

Working Capital is the term used for funds required in day-to-day operations. It is used to fund the purchase of raw material, maintain stock, buy stores and consumables, fund overheads, administrative expenses and put the product in dealer warehouses. Working capital management assumes significance when primary raw material suppliers must be paid immediately (inspite of raw material having to be stocked months in advance) and customers must be sold material on credit.



Interest cost (%)

During 2003-04, the total working capital limits stood at Rs. 23 cr out of which Rs. 17 cr was converted into FCNR(B) and PCFC limits, bringing down the cost of working capital from 12 per cent to 5.9 per cent. The Company has also effectively utilised the interest free sales tax deferment loan for working capital requirements.

In addition, APPM also availed of the LIBOR-linked finance under the buyer's credit line. This was used to pay the creditors (through foreign LC payments) for imported raw material used at Unit: CP. This prudent fiscal initiative helped improve the working capital cycle. Besides, the finance cost for imported LC payments reduced by close to 300 – 400 basis points.

Exports

The Company's products cover a wide range of colours, makes and textures to suit every consumer need. Consistency in quality,