SECTORAL PERFORMANCE REPORT

ON

PULP & PAPER INDUSTRY

STATISTICAL UPDATE (2016-17)

CENTRAL PULP & PAPER RESEARCH INSTITUTE

PREAMBLE

Sectoral performance and its forecasting can be studies only on a sound data base, which quantifies the critical variables driving and influencing the trade pattern of commodities. Core sectors have had a head start in this aspect, wherein exhaustive data base of key functional parameters is available and models are in place for future projections.

The need for a sound data base started to be felt as early as GATT, but things came to a fore in the 1990's with liberalization of economy and India joining the WTO. Soon, India was negotiating free trade agreements of its own and negotiators demanded key sectoral data at the 8-figure level of product classification. Moreover, such data base was also critical to put in place policies to take a given sector forward under a liberalized regimen.

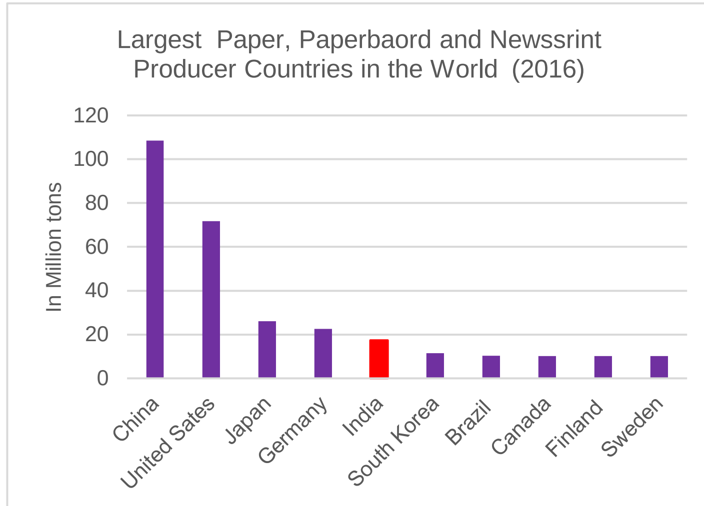
This fact was realised by the Development Council for Pulp, Paper and Allied Industries for the paper sector way back in 2012. Consequently a Cess Sponsored Project was awarded to CPPRI entitled Collection of Statistics of the Indian Paper Sector. Within three years, a two-volume book was published entitled Statistics of the Indian Paper Sector. This was one of the first compendium that carried the enumeration of key statistical parameters of the Indian Pulp and Paper Sector. While this was well received by stake holders, it became clear that such an activity shall have to be carried out on a continuous basis so that updated statistics is available for the paper sector for stakeholders and Government alike.

Subsequent to this, the mandate of the project was redefined and its name was changed to Census Survey of the Indian Paper Industry. Under this, the mandate was to gather unit level details of production and related data to make up a data base, which could then be updated on a regular basis. As a result of this exercise, a compendium entitled Census Survey of the Indian Paper Sector was published in 2015, which was a comprehensive collection of key statistical parameters of the Indian paper sector.

The present document is an update of the data base, that has been updated under the time of reporting

Industrial Description

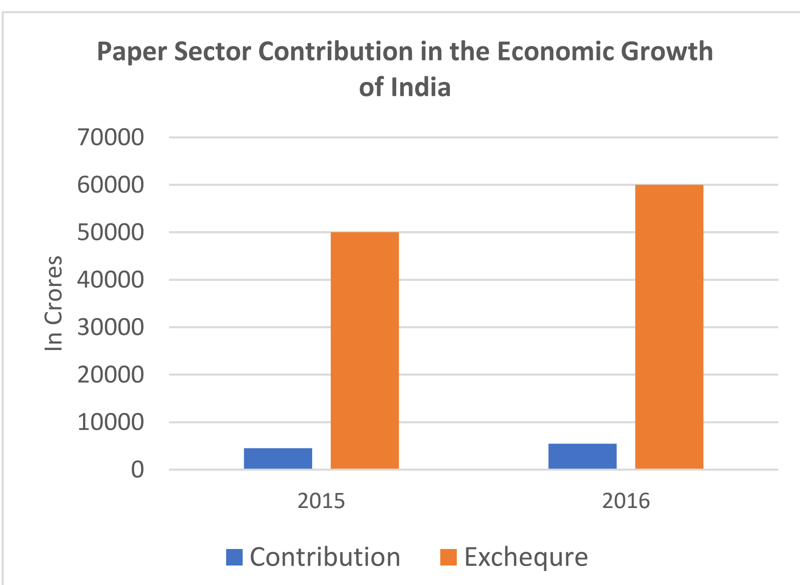
Paper Industry in India is one of the most thriving industries outside the 8 core sectors so defined in the country. Indian paper industry accounts for about 4.29 % of the world production of paper, paperboard and newsprint ranking 5th in the world as per FAO data.

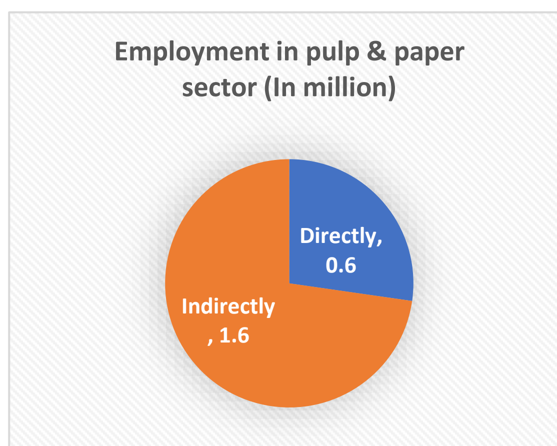


Source: FAO & CPPRI

The sector continues to be a major employer in the Indian hinterland, providing direct employment to 0.6 million people literally at their door step. It also provides indirect employment to about 1.6 million people indirectly.

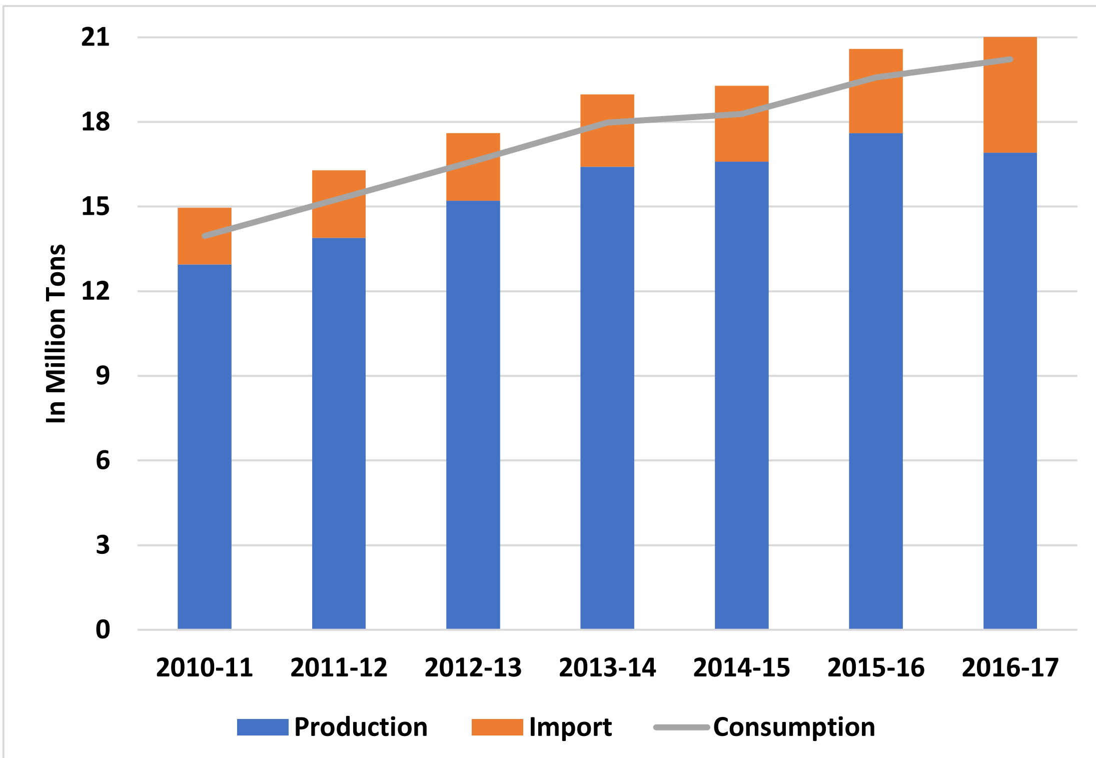
As of date, the sector exhibits a turnover of Rs. 60000 crore with a contribution of about Rs. 5500 crore to the exchequer. In 2015, these figures stood at Rs 50000 and Rs. 4500 crore, respectively,





Traditionally, the paper sector exhibits a CAGR of about 6-6.5%. However, over the past three years, the rate of growth of production has been steadily going down. This is in contrast to the consumption, which is exhibiting a steady rise. Clearly, the Industry has come to a point where the raw material crunch has started to take its toll and the sector has almost stretched its limit for capacity debottle-necking. This is clear from the data that exhibits increasing consumption even as the falling production is being met from imports.

Trends of Production, Imports & Consumption



Snapshot of the Sector

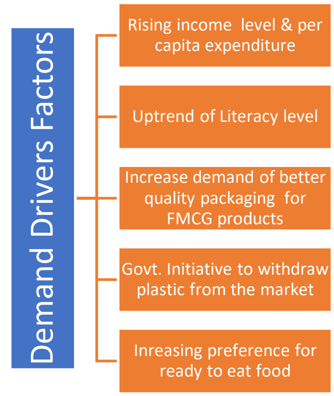
A self-explanatory snapshot of the Indian Paper Industry is placed below:

<table>
<tr><td colspan="2">Number of mills</td><td>859</td></tr>
<tr><td colspan="2">Total Installed capacity, million tons</td><td>25.55</td></tr>
<tr><td colspan="2">Operating mills</td><td>591**</td></tr>
<tr><td colspan="2">Operating Installed Capacity, million tons</td><td>20.65</td></tr>
<tr><td colspan="2">Production of Paper, Paperboard and Newsprint, million tons</td><td>16.91</td></tr>
<tr><td colspan="3">CONTRIBUTION FROM DIFFERENT SEGMENTS, million tons</td></tr>
<tr><td>WOOD BASED</td><td>AGRO BASED</td><td>RCF MILLS</td></tr>
<tr><td>3.27</td><td>1.61</td><td>12.03</td></tr>
<tr><td colspan="2">Capacity utilization,</td><td>~ 80%</td></tr>
<tr><td colspan="2">No. of Mills closed</td><td>268</td></tr>
<tr><td colspan="2">Idle installed capacity (million tons)</td><td>4.29</td></tr>
<tr><td colspan="2">Per capita Consumption (kg)</td><td>13.89</td></tr>
<tr><td colspan="3">CONTRIBUTION IN THE GDP (IN CRORE)</td></tr>
<tr><td colspan="2">Total turnover of the sector,</td><td>Contribution to Exchequer,</td></tr>
<tr><td colspan="2">60000</td><td>5500</td></tr>
<tr><td colspan="3">EMPLOYMENT DATA (MILLION PEOPLE)</td></tr>
<tr><td colspan="2">Direct Employment</td><td>Indirect Employment</td></tr>
<tr><td colspan="2">0.6</td><td>1.6</td></tr>
<tr><td colspan="2">Indian Share in World's Production, %</td><td>4.29</td></tr>
</table>

** Data of 92 mills is under re-verification

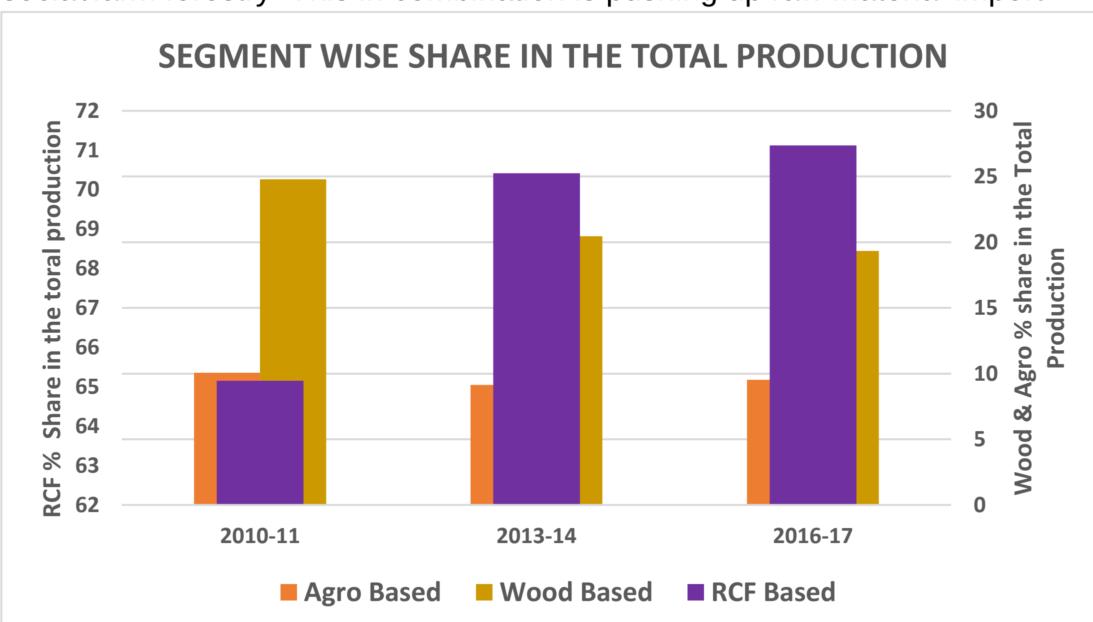
Demand Drivers

The usual demand drivers for paper sector, such as government polices of compulsory education, adult education and flagship programs such as the Sarv Sikhsha Abiyaan are in place, working to create a sustained demand for paper. Rising income levels, increasing literacy, demand from packaging sector etc are sure to ensure a steadily rising paper consumption in the times to come.



SECTORAL RAW MATERIAL USAGES

Over the last six years, major rise can be seen in use of recycled fibre. This is on expected lines, as many units shifted to RCF due largely to environmental issues. The share of the Wood based paper mills in total production has dropped from about 25% to 19% in the past six years. The use of wood for paper making is holding steady as most of the large players have gone in for social/farm forestry. This in combination is pushing up raw material import.



India and the global paper trade.

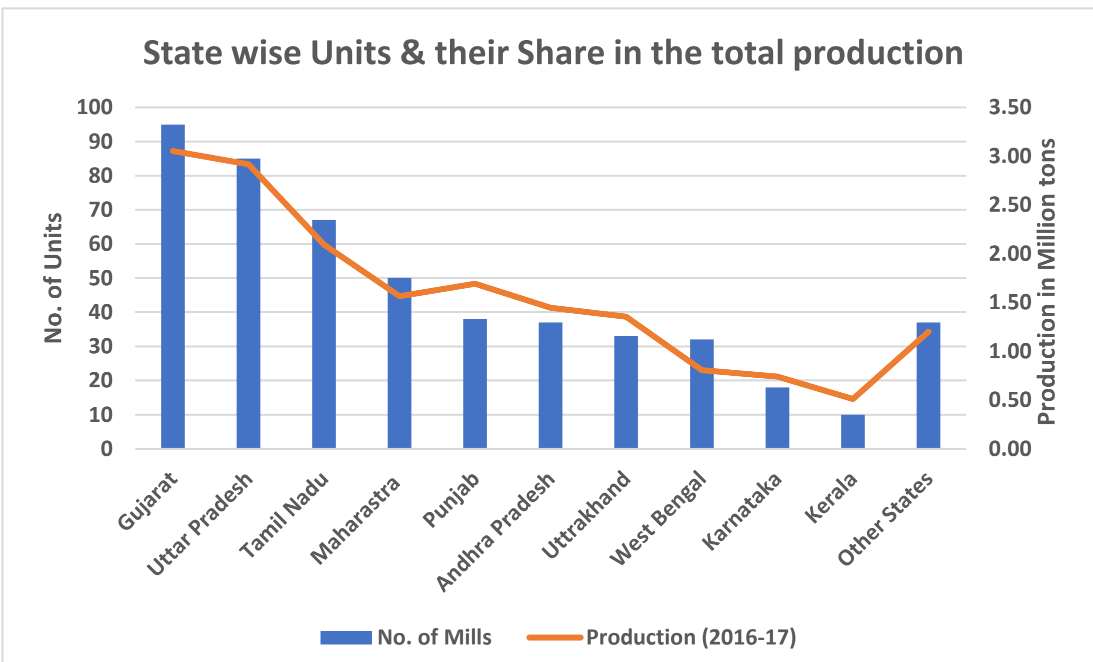
Out of 408 million tons of paper consumed globally, India consumes 20.68 million tons of paper and paper board annually, putting India's paper demand at 4.29% of the global demand. None the less, the gap between national per capita consumption of paper (13.89 kgs) and global average of about 50 kgs. clearly demonstrates a demand gap waiting to be tapped.

However, with a steady growth in the country's economy since the early 1990's, India witnessed a rapid rise in consumption of paper. The consumption of paper in India increased from 14.45 MMT in 2010-11 to 20.68 MMT in 2016-17.

Territorial spread of Paper units

Gujarat leads the industry by way of number of units and production volume. It is followed by U.P., Tamil Nadu Maharasra and Punjab.

Spread of Paper units&their share in the total Production



Source: Census Survey of Indian Paper Industry

Sectoral Distribution (Operational mills)

As expected, major share of production is coming from RCF based mills, followed by Wood and agro based segments.

Structural scenario of Indian Paper Industry (2016-17)

	No. of Mills	Production, Mtpa (*)	Production Share (%)
Wood based (Large Integrated)	19	3.27	19
Agro based (Medium Scale)	40	1.61	10
Recycle Fibre based (Medium and Small Scale)	440	12.03	71
Total	**499**	**16.91***	**100**

(*) Figures based on production of operating mills.

- The wood based large integrated paper mills having installed capacities in range from 250 to 1600 tpd, have production share of around 19.%. These mills have estimated turnover of Rs. 27000 crores in the FY 2016-17.

- The agro based paper units have capacities from 30-530 tpd with a production share of 10%.

- Waste paper-based paper mills operate in the range of 10-1400 tpd contributing to 71 % of total country's production.

PRODUCT SEGMENTATION

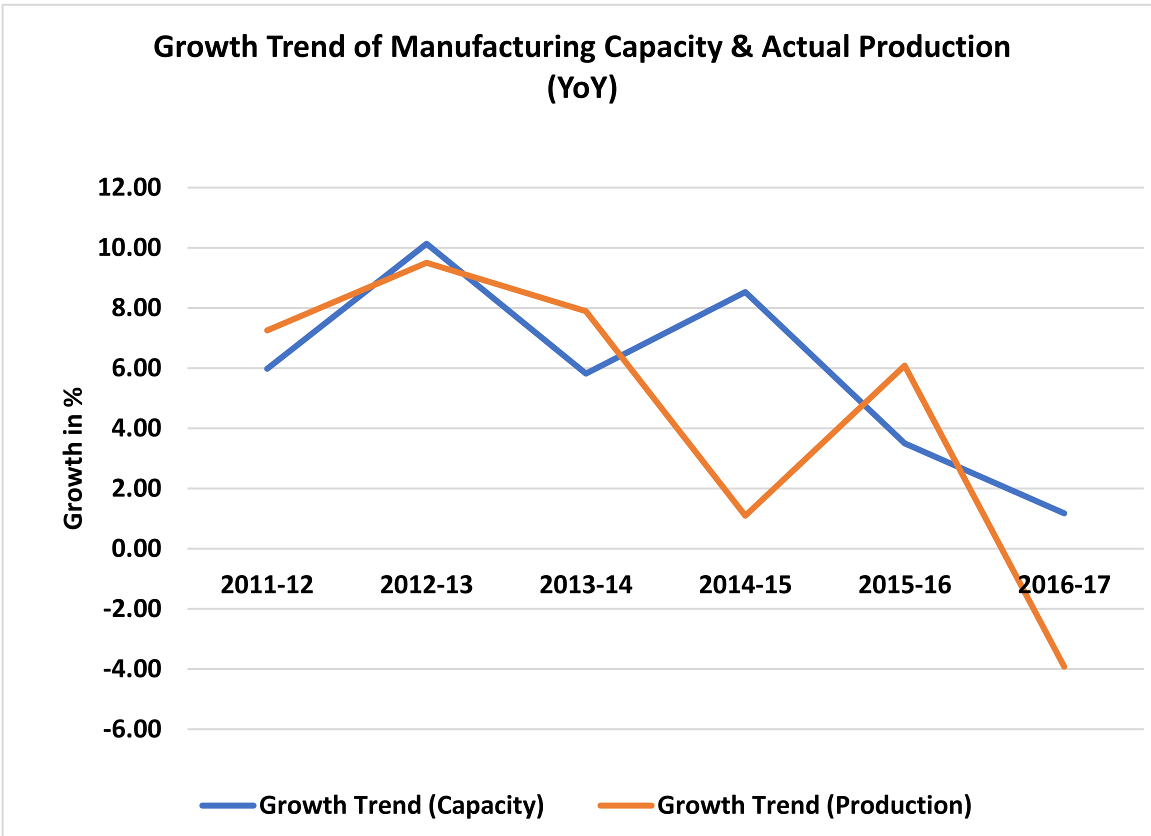
As per the data base, the packaging grade verities are main contributors to the paper production. These include Kraft paper, white board, Machine glazed (MG) poster, duplex board andgrey board etc. These products are manufactured largely by RCF based mills. The writing and printing varies make up the second largest contributor to production. Products include uncoated varieties viz. cream wove, maplitho; branded copier and coated paper. Wood and RCF based mills contribute almost equally to the production share. Newsprint is largely being produced by the RCF sector.

Production of various grades from Different Raw Materials

Variety		Production Share%	Percentage (%)	Production	Share %
Writing Printing Grade	**Wood Based**	**3.21**	**51.25**	**6.256**	**36%**
	Agro Based	**0.64**	**10.31**		
	Recycled Fibre Based	**2.39**	**38.17**		
Packaging Grade	**Wood Based**	**0.98**	**10.25**	**9.56**	**58%**
	Agro Based	**1.23**	**12.91**		
	Recycled Fibre Based	**7.34**	**76.84**		
Newsprint Grade	**Wood Based**	**0.014**	**1.34**	**1.04**	**6%**
	Agro Based	**Nil**	**Nil**		
	Recycled Fibre Based	**1.02**	**98.66**		

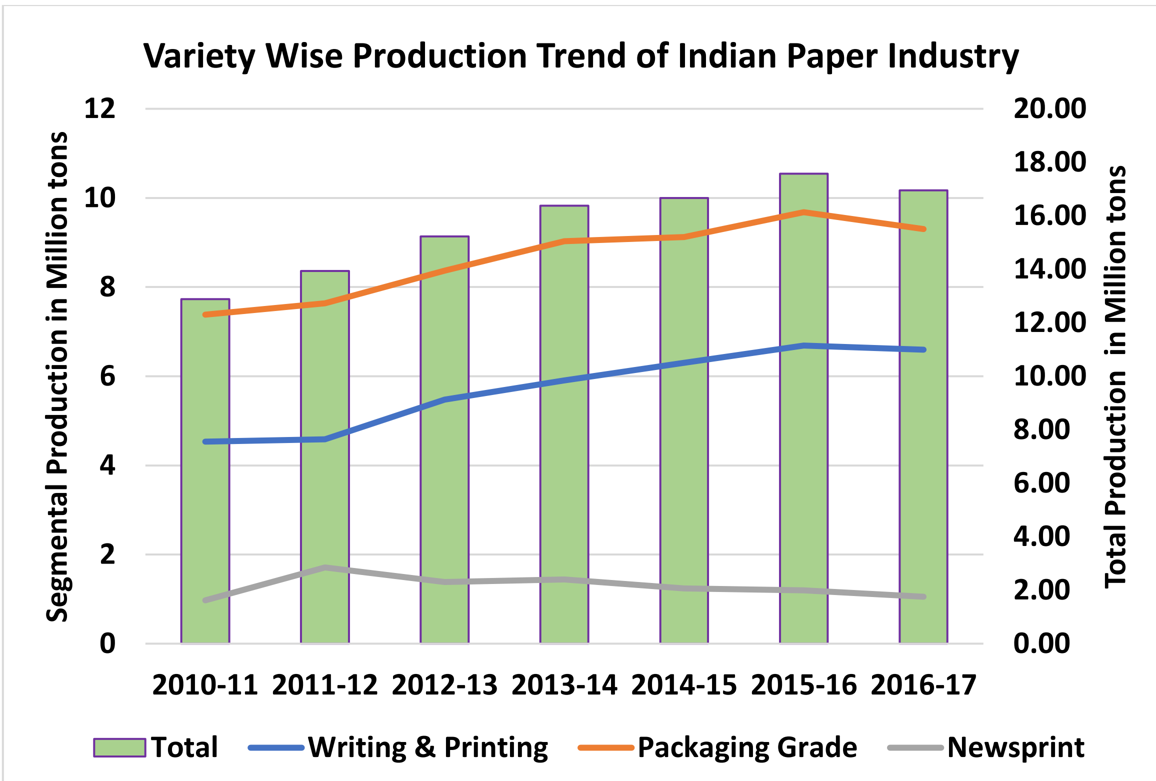
YEAR ON YEAR GROWTH TRENDS

The graph indicates that from 2011 to 2013 the yearly production growth rate was comparable or higher than the capacity growth rate. However, beyond 2013-14 the data becomes highly spiked with production growth rate falling sharply on YoY basis.



Variety wise production trends

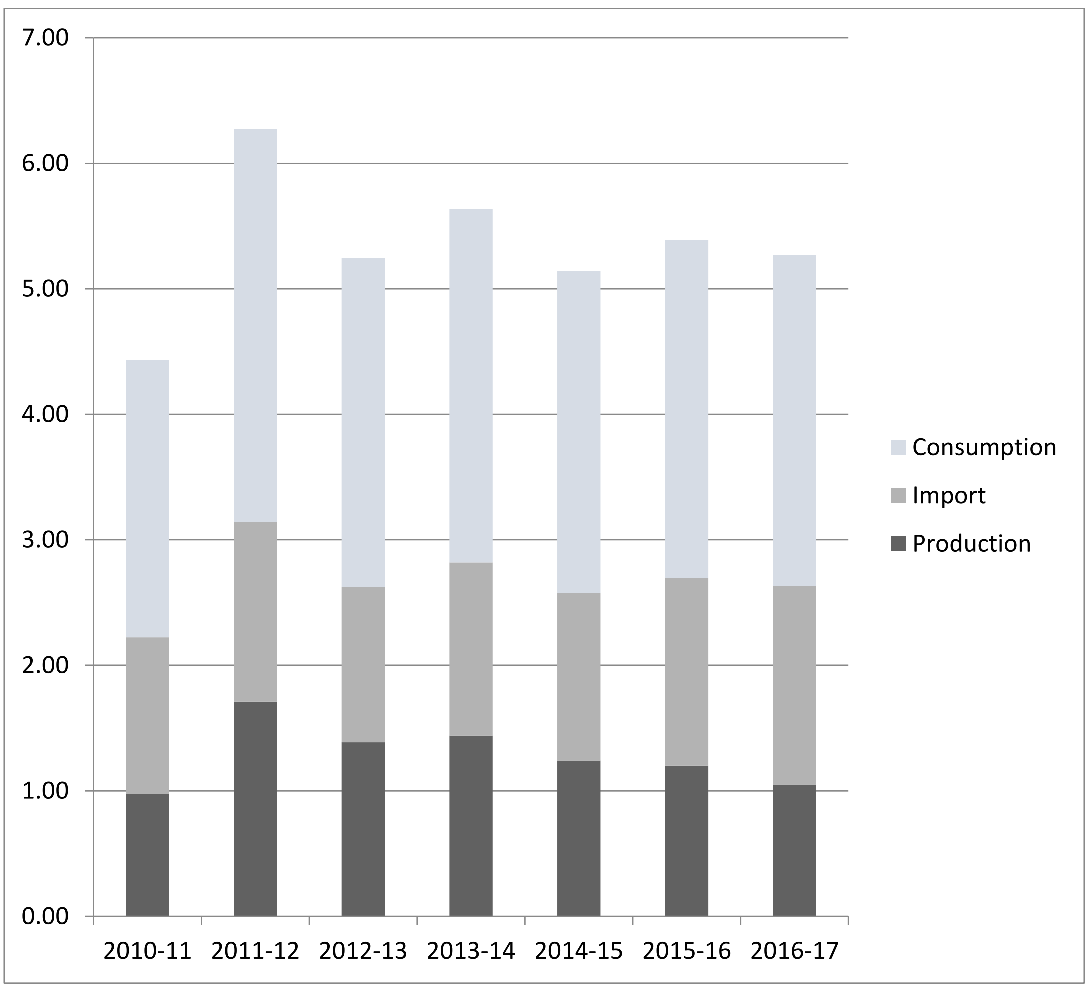
The trends of production of indicated segments are in expected lines with packaging grade at the highest and the Newsprint at the lowest value of production. Additionally, the down trend in newsprint production over the last many year is clearly visible.



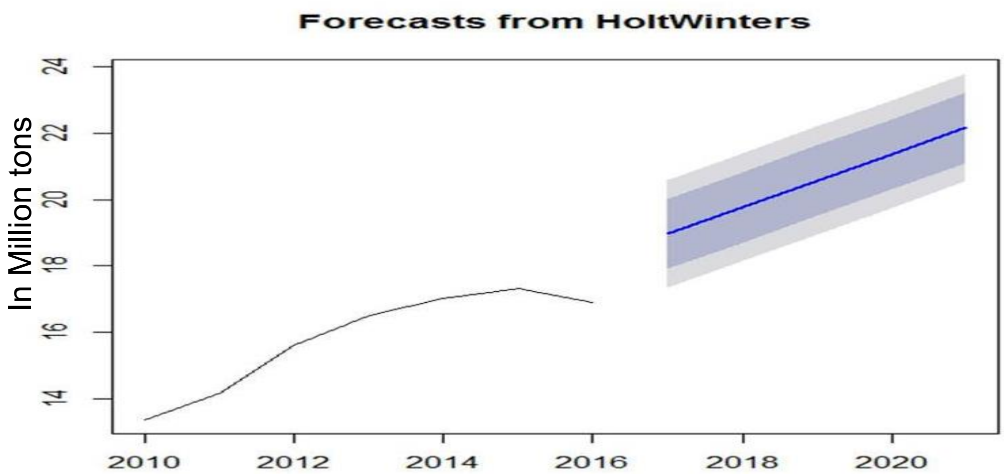
Newsprint

The woes of the newsprint sector continue with the production decreasing at a steady rate over the aspt few years. The consumption is bing met by increasing exports

It is felt that there is an urgent need to make a provision in newsprint import policy to levy a basic custom duty of 10% as and when price of imported newsprint drops below us $ 600.

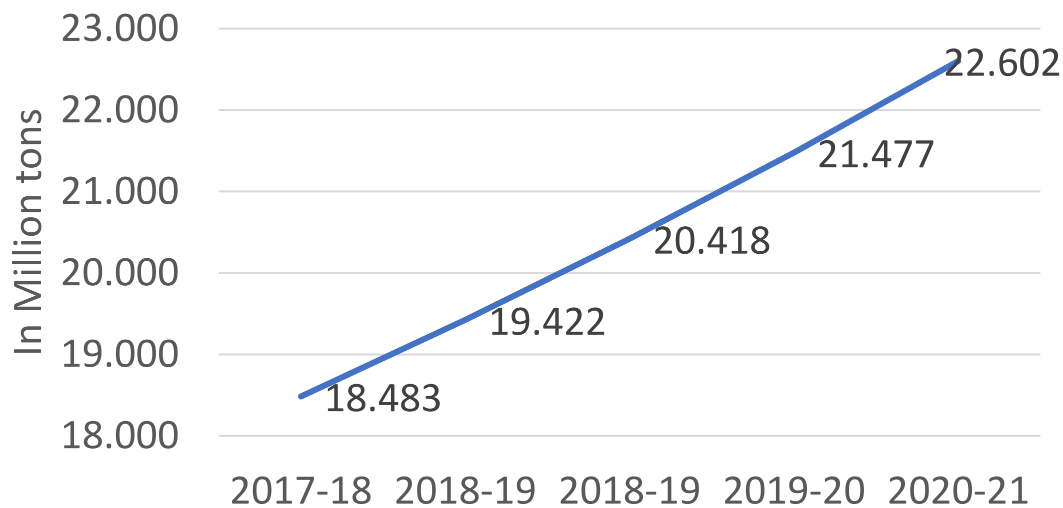


Analysis of Forecasting – Production (Holt-Winter Filtering using R software)



Blue central area = **scatter at 80% confidence level.**
Grey outside = **scatter area for 95% confidence level.**
Alpha = **zero, implying no seasonality.**
Prediction range = **20-24 million tons (Central value 22)**

Analysis of Forecasting – Production (ab-inito method)



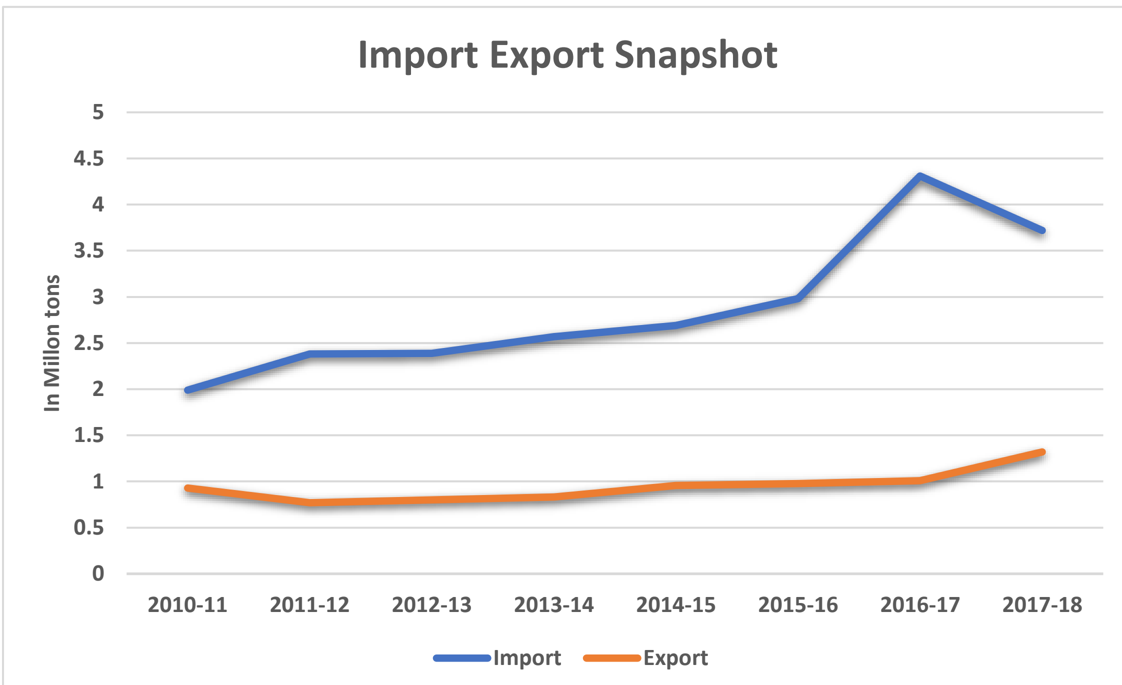
As the previous method indicated high standard error, therefore, above forecast has been done using YoY increase in sectoral production, smoothened for spikes & deviations.

This also indicates a production of about 22 million tons by the years 2020-21.

However, the stagnation of increase in production rate for the last two years does constitute a matter of concern.

Statistic just in

The department of Commerce reports a downtrend in the import of items of chapter 48. This is a trend that has never been seen over the last six years. This goes to indicate that the performance of the Indian Paper Sector may exhibit an uptrend in 2017-18, given the fact that consumption is not expected to decrease in the same period. It will be interested to watch this space for the data 2018-19.



RECOMMENDATIONS

- **THE RECOMMENDATION OF THE WORKING GROUP FOR ALLOCATION OF DEGRADED FORESTS FOR PULP WOOD PLANTATIONS NEEDS TO BE IMPLEMENTED ON IMMEDIATE BASIS.**
- **OUT OF THE AVAILABLE 28.84 MILLION HECTARE OF DEGRADED FOREST LAND, PAPER SECTOR NEEDS ONLY 2.5 MILLION HECTARES (7%) TO MEET PULPWOOD REQUIREMENT.**
- **SUPPORT NEEDS TO BE EXTENDED FOR SOCIAL/FARM FORESTRY AT THE FARMER'S END.**
- **EFFECTIVE COLLECTION OF POST CONSUMER WASTE PAPER TO INCREASE WASTE PAPER RECYCLING RATE.**
- **MECHANISM FOR BUYING BAMBOO/TREES FROM FARMERS GROWN ON PLOT PERIPHERY AND NOT COVERED UNDER INDUSTRY SPONSORED SOCIAL/FARM FORESTRY PROGRAMS.**
- **PROVISION IN NEWSPRINT IMPORT POLICY TO LEVY A BASIC CUSTOM DUTY OF 10% AS AND WHEN PRICE OF IMPORTED NEWSPRINT DROPS BELOW US $ 600.**