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The Place of Mini Paper Plants In The Indian Paper Industry

An abbreviation of the word 'miniature' appears to be 'mini'. On this contention "mini" means a small or reduced copy of any thing or representing a thing on a small scale. Mini Plant is, therefore, a small plant, based on daily production capacities. There are no clear lines of demarcation between small, medium and big size paper mills. Over the years, the concept of the "minimum and big size paper units" in the country has undergone considerable changes. Once in a not very distant past, a plant with a daily production capacity of 30 tonnes of paper was used to be considered in the country, as the minimum economic unit. In 1938, a paper mill was established in U. P., with a yearly production capacity of 3,500 to 4,000 tonnes of paper¹, (that is, an average daily production capacity of 12 to 13 tonnes of paper). Although no expansion programme was taken up by that mill prior to 1955, the mill was never termed "mini". Today, a plant with a daily production capacity of 100 tonnes of paper is considered as an economic

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The Mini Paper Plants have a vital role to play in providing employment and shaping the rural economy beside the much needed paper.

The establishment of large paper mills require so heavy investment as to be within the reach of only a few big entrepreneurs. Mini plants require considerably less investment and if the proposal of supplying pulp to the Mini Paper Plants from the 'Mother Pulp Mills' takes shape, the investment will be still less and the pollution problem eliminated.

Mini Plants are intended to use local raw materials and cater to the need of the adjoining areas: hence transport charges will be less, lowering the cost of the finished goods.

The selection of a suitable site for the location of the Mini Plant is of great importance for its successful working.

Mini Plants are also eminently suitable to undertake diversification in production.

The Mini Paper Plants should thrive and work as complementary to, and not in competition with, the big paper mills.

unit. Podder² considers plants with daily production capacities from 5 to 10 tonnes of paper as "small paper mills". If this term 5 to 10 ton/day plant be accepted, what will a plant with a lower production capacity, (say, 2 ton/day) be termed? The line of demarcation between small and medium size paper plant seems to have obliterated with the passage of time and the very concept of a small and medium size paper mill has undergone modification in recent years. Thus, Tapadar³ considers small or medium size paper mills to be those with a daily production capacity of 25-40 tonnes of paper.

The paper industry is highly capital intensive. The establishment of the so-called economic plant (around 100 tonnes/day) under the present day concept, will require such a large investment that only a few entrepreneurs can undertake the venture. For a new unit, the investment required will be well over Rs. 10,000/-per annual tonne of paper⁴. For small paper plants, the investment will be considerably less and will be within the reach of the middle class entrepreneurs. When plants with daily production capacity of 100 tonnes of paper is considered to be most economic unit, there is no reason to consider that

plants with daily production capacity of 5 to 10 tonnes of paper will be considered unremunerative and unfeasible, provided the selection of the site in regard to raw material (s) availability and price, transport facilities, plant capacity and production, nearness to the consuming area, etc. are all made with favourable considerations.

The selection of the site should essentially depend on the nature and availability of raw material, water and power, transport facilities and charges, nature and urgency of consumer's demand and the area of distribution of the end products. The plant capacity should depend on the quantum of consumer's demand. The common raw materials that may be available to the small plants are pulpable agricultural residues of almost all descriptions beside rags, waste paper, rope and gunny cuttings, etc. The selection of one or more of the raw material (s) will depend on availability, cost and composition of the pulp furnish required in consonance to the end products in view.

The availability of the raw material for a large mill is limited and difficult to arrange, due to their availability from specific areas, and the need of transport over long distances. The small paper plants are (and should be) scattered all over the country, keeping in view, facilities available. They are to collect the locally available raw material(s) and should cater to the

normal need of the respective areas.

The idea of establishing small paper plants all over the country in favourable areas, to meet to the extent of one-fifth of the annual paper requirement of the country, was once viewed with favour. However, for reasons unknown, nothing substantial has as yet come up. Aggarwala⁵ not only supported the idea but suggested the establishment of chains of mini paper plants in the country and also of the "Mother Pulp Mills", in selected areas, to supply pulp to the proposed mini paper plants. The mini paper plants will, therefore, become conversion units engaged in the conversion of pulp into paper (that is, production of paper from pulp). This will substantially reduce the equipment cost, hence the capital investment and will substantially eliminate the effluent problems. Usually small plants engaged in the production of their pulp are not equipped with the chemical recovery plants. Such plants are not only costly, and their inclusion will make the proposition costly, but the cost of chemical recovery in small plants is so high as to make the recovered chemical costly and unremunerative. However, with the recent trend in high chemical costs, the position requires re-examination. Tapadar³ has drawn attention to "a very commendable breakthrough in the recovery of chemicals according to which small or medium size paper mills can now use bamboo, wood and agricultural residues without losing the

chemicals in washing out the spent liquor after the pulping operation."

Some of the big paper mills are engaged in the production of the conventional writing and printing papers and others in the production of kraft papers and some in both. Since their products find a ready market, they seldom undertake diversification in production. Some of the small mills can take up the production of speciality papers. As the requirement of such papers, in the country is limited they can be taken up in small paper mills. Small paper plants are eminently suitable for diversified products. The small units are best suited for production of bank note and document paper, cigarette tissue and other tissue papers, and the like. The raw material required for these should be long fibred and of high purity. Rags, flax and clean linseed fibre (sunn and true hemp), cotton, rope cuttings are suitable raw materials for the purpose.

The small paper mills hold out better employment potentials than big mills. The small scale paper units should not be considered as competitors of big mills. The small paper units have a significant and distinct role to play in providing rural employment. Small scale paper plants should thrive and work side by side with big paper mills in complement with one another.

References

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