An Impartial View of the Future of the Paper Machinery Manufacturing Industry in India

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The Indian Government Development Council for Paper Pulp and Allied Industries reported earlier this year that the 5th five year plan target for expansion of the Paper Mannfacturing Industry is well over 800,000 tonnes.

This amounts to a potential doubling of the capacity of the Indian Paper Industry when compared with 1971 figures. Even though part of this expansion is geared to future increase in demand, the existence of a crash programme for 120,000 tonnes obviously recognises that there is already a current shortfall of capacity compared with consumption.

The Goverment is clearly concerned over the slow rate at which the other additional 680,000 tonnes is being proceeded with, and is looking for ways to accelerate this expansion.

It would seem to me that the Indian Paper Machinery Manufacturers are approaching a phase when the volume of authorised expansion, and the related time scale required by the Government and the papermakers will be such that they will be quite unable to meet this demand or to offer realistic deliveries.

I believe that even after allowing for the purchase of certain second-hand paper machines, and the uprating of existing machines, something like 20-30 new paper machines are required to meet the programme. As an illustration of how this will strain resources, one could think of these machines in terms of drying cylinders alone, 25 machines with say 30 cylinders each=750 cylinders. Allowing for unsatisfactory castings, and allowing for the fact that the order pattern may not be the most economic for the foundry, a cylinder manufacturing capability of at least 1500 cylinders over a relatively short period is necessary, many of which ought to be significantly wider of face and designed for higher running speeds than heretofore.

There is a real risk that if the capacity of the Machinery Manufacturing Industry is severely overstrained, your Government will be faced with two unpalatable alternatives:

i. A high demand for Foreign Exchange to pay for extra paper and pulp imports resulting from the failure of home papermakers to achieve the expansion target.
   or alternatively.
ii. The necessity to grant extra import licences and the necessary extra Foreign Exchange at short notice in respect of equipment not normally imported, in an effort to accelerate the rate of expansion of papermaking capacity.

The former of these alternatives is quite sterile, and the latter is equally unsatisfactory in that this represents uncontrolled expenditure of Foreign Exchange.

The existing Manufacturers of Paper and Pulp Mill Plant and Machinery and your Government are, of course, exploring ways to augment existing machine building capacity and I wonder if I can offer one or two ideas as to how this aim might be achieved.

It seems to me that the key to achieve any major increase in machinery building capacity lies with the Paper Machinery Builders and the Papermakers themselves who might take initiative in respect of the following points.

The Paper Machine Builders might

i. Develop 'Licensed Manufacture' Agreements with overseas plant and machinery makers in a fashion that facilitates rapid implementation.
ii. Press the Indian Government to overhaul the inter-relationship between the D.G.T.D. Paper and

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Pulp Directorate on the one hand, and the Import Licencing and Foreign Exchange Departments on the other.

For their part, the Papermakers themselves might

iii. Foster collaborative links with leading overseas papermakers.

As regards the first of these points, I believe I am right in saying that the majority of the leading European and American Pulp and Paper Machinery Manufacturers do not invest in manufacture either wholly or in part, in India. Black-Clawson, Ahlstrom, Valmet, Wartsila, Hunt & Moscrop, Jagenberg, Harnden, Goebel, Rauma-Repola, Masson Scott and the like, all leaders in their fields are absent, and their nonparticipation in Indian Pulp and Paper Machinery construction is, in my opinion, a serious loss to India. Apart from the direct value of tapping their manufacturing resources, their know-how on manufacturing techniques (for example, the efficient casting of high quality drying cylinders) would be invaluable at this time, not to mention the latest design and production know how that they could bring to bear on your difficulties.

The rate of expansion forecast for the European Paper Industry for the next 10 years is not particularly demanding from the Machinery Manufacturers point of view, and there is plenty of interest in foreign markets in general, and the expanding Indian market in particular.

The obvious stumbling-block to their investment in Indian manufacture has always been the poor return to any Parent Company on their investment, and I recognise that this situation is unlikely to be easily changed without a reversal in the Indian Government philosophy and policy on the taxation of remitted profits. However, it is possible that Indian Paper Machinery Builders could consider circumventing this obstacle by making collaborative agreements in a fashion that does not require investment by the licensor, or the remission of profits as the major source of compensation.

I have in mind the agreements which have been adopted recently by Indo-Berolina Industries Ltd and Messrs Bertrams Ltd of Edinburgh, U. K., and Bertrams Scott Ltd, India and the Millspaugh/Escher Wycss Group. In the former case, according to my information, the Foreign collaborators have a short term agreement under which they receive in sterling a licensing fee and royalties, both payable incrementally over the term of the agreement, and in exchange they provide machinery designs and up-to-date know-how on manufacturing techniques, etc. Additionally, of course, the licensor gets an order for such proportion of the total contract as currently cannot be made by the licensee.

This proportion naturally will reduce progressively as contract succeeds contract so that eventually the short term agreement will have served its purpose, virtually all manufacture will be indigenous, and the future collaboration between the two companies is taken care of by a long term agreement under which the licensor continues to update designs and provide know-how in exchange for royalty payments.

This is an indication of the kind of thing that might well be done to tap overseas expertise, and I believe that links along the lines of the above example will be found attractive to prospective licensors in that they have an assured (albeit modest) return for which no capital investment is required. The licensee, of course, not only gains quick access to the Indian home market with well-known modern International equipment, but could also become the prime source for marketing the equipment in question in S. E. Asia, under a collaborative arrangement with the licensor.

Perhaps I might remark here that I am in no way suggesting that anything is lacking in the workmanship and the quality of the Indian Pulp and Paper Machinery Manufacturing Industry; the skills of your engineers and work people are already well known; witness the fact that you are already major exporters in certain industrial fields. What I am proposing is the formation of arrangement wherby existing skills can be augmented by the more rapid acquisition of specialist skills in order to meet the exigencies of the situation. Or to put it another way I am proposing that you try to ensure that the many machines to be laid down in future are as wide, fast and modern as possible.

As regards the second point, it seems to me that the current policy of the Government Import Licensing/Foreign Exchange Departments is not working in the best long term interests of the industry as a whole; it is in my opinion out of harmony with the best interests and intentions of the D. G .T. D. Directorate authorising expansion of papermaking capacity, and is insufficiently flexible and imaginative.

The current policy gives indigenous Machinery Manufacturers virtually complete protection against imports since no licence is granted if an indigenous source can manufacture or claims that he can manufacture a given item; even with a long delivery, this is quite apart from the further and parallel protection of high Import Duty tariffs.

I recognise the need to protect the growth of home industry, but by doing this both by tariff barriers and Import Licensing without flexibility, the policy is in fact a negative one, for it does nothing to promote internal competition or to expand indigenous sources. After all, where is the incentive for an existing home source to re-equip for the most modern manufacturing techniques? Or to adopt realistic pricing when protected by high import tariffs? And which purchaser will prefer to be the 'guinea-pig' for any indigenous source attempting the manufacture of pulp and paper machinery for the first time but not backed by existing know-how?

The division on any major Process Line between what is imported and what is to be obtained indigenously, being governed by the Import Licensing protection restriction mentioned above, the resultant combined effort will most likely—

i. Have an indigenous content that may have been taken so far as to be unsatisfactory to the licensor for technical reasons.

ii. Have a delivery programme extended to a degree that is quite unsatisfactory for the paper maker due to the prime contractor having to accommodate long delivery indigenous sub-contracts.

iii. Have other built-in difficulties that are inherent in an arbitrary division- such as unsuitable assembly and test arrangement for machinery which might have to be built in different countries.

iv. Be unnecessarily expensive.

And as I said, there is no opportunity here for further indigenous sources of supply to develop naturally.

Ideally, on a collaborative basis, the specification and tender should be prepared by the licensor and the licensee together arriving at a natural division between imported and indigenous contents in a normal technical/commercial fashion. In other words, the *licensor* should agree with the licensee which items the latter is currently capable of manufacturing indigenously and also which further items are available elsewhere in India to a satisfactory standard of design and manufacture, and with economic deliveries. The criterion for determining what the licensee himself should manufacture should be the engineering capability of the licensee, working with imported drawings and know-how and possibly with imported technicians in the first phase.

Having rationally agreed the indigenous content, the remainder of the equipment becomes the imported content, and the proportions thus struck are such that both the licensor and the licensee are wholeheartedly behind the project, which has a correspondingly much greater chance of being a technical and commercial success.

Furthermore, in this way additional sources of supply would be efficiently rapidly developed under controlled conditions.

May I say two further things on this subject. Firstly, that there is no incentive like competition for improving efficiency and encouraging cost effectiveness and I urge that existing Paper Machinery Manufacturers should be prepared to accept some relaxing of Import Licence restrictions in the best interests of all concerned in this industry in this country.

The obstacles to the Government implementing such a policy are of cousre political, organisational and financial. The former two I do not dare to comment on, but as regards the latter I would say that the increased amount of Foreign Exchange needed in the short term is not as significant as might be imagined.

Taking a Process Line (Stock Preparation Equipment, Paper Machine Calender and Reel-up) for a typical specification, the Foreign Exchange differential to accommodate the more liberal policy expounded might be 20 Lakhs (£110,000), and the total differential in respect of the projected doubling of Paper and Board making capacity might be 200 Lakhs, and I would point out that this is only equivalent to the total Foreign Exchange content of two such Process Lines.

In the short term, therefore, the policy I am propounding will be more expensive in foregin exchange, but I would anticipate that the foreign exchange required in the 5th and successive five-year plans would be reduced significantly, giving India a handsome profit in aggregate terms of foreign exchange quite apart from technological benefits.

You are inevitably going to create a large and thriving Paper Manufacturing Industry and in the next decade lay down very many new machine lines. It would be a tragedy from India's point of view if these machines were not technologically right up to date and the world's expertise in building such machines was not incorporated into your own manufacturing capability.

The above two points have particular relevance to major expansions, of course, and I recognise that a significant part of the expansion programme will be achieved by small increases in output in numerous mills. In some cases, this will be achieved by increasing the output of existing machine lines, by replacing or adding selected items of equipment, etc. It may be found however, that there would be some advantage to be gained in collaboration with leading overseas papermakers who are concerned with the same product ranges. For example, many European Mills have been improving their output (either in terms of tonnage or quality) by paying particular attention to areas such as refining systems, profile and formation, trim reduction, finishing equipment, etc., these improvements often being gained for relatively low expenditure. My Company, amongst others, offers consultancy type assistance in respect of virtually any aspect of Paper Mill Production or paper making technology, always assuming of course that there is no conflict of sales interest. These consultancy type agreements usually involve relatively modest outlay for the benefits received, and it is to be hoped that the Authorities will support, indeed encourage such collaborations by ensuring prompt consideration and approval of any suitable applications along these lines, and ensuring that the relatively small amount of Foreign Exchange is made available.