## Bharat Jhunjhunwala

"Development" does not mean mere increase in GNP or per capita income is now well recognised, for otherwise the Sheikhdoms would have long developed. When we now speak of development we mean not only the growth of GNP and per capita income, which are important, but also its fair distribution and a sensible organization of society, which can provide better life to all.

In another language, "development" requires best use of all the resources of the nation-land, labour and capital. To use our resources we have to organize our society well, economically, politically and socially, thus providing better life. The more effectively we can use our resources the faster our development proceeds. Unfortunately, this simple idea of focussing on our resources and needs was never realised by our planners. Instead they, rather we, assumed that development would essentially proceed along the lines followed by the west. In the process we have solit our nation. In the industrial-urban sector we produce very fine quality of all products, including paper,

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## Which Way Pulp Technology?

The present pattern of the Indian Paper Industry has been compared with the paper industries of the developed countries. Suggestions have been made for development of the Indian Paper Industries on non-conventional line. Development of paper industry in rural areas has also been suggested.

using extremely capital intensive machinery. And in the agricultural-rural sector we continue to produce foodgrains with labour intensive traditional techniques. Consequently the bulk of our people remain fundamentally aloof from the industrialization that we have undergone.

More specially, the paper industry uses scarce resources like bamboo and straw or imported pulp, uses scarce sources of energy like electricity and coal, and a large factory barely employes 5000 people, to produce paper almost totally consumed by the top 10 percent of our people. The net impact on the villages is that their bamboo and straw resources are siphoned off to be consumed by the cities. Of course, they get some nominal payments but the basis flow of resources is out from the villages.

In this pattern, whenever there is a slight recession in the industrialurban sector we find immediate reflection on the paper and board industry, because the consumers are very limited in numbers. Essentially the paper and board industry produces for the few by the few. The pressure of recession has forced the industry to produce still more specialized items using even more sophisticated industry further narrowing its base. In this manner we have isolated ourselves from a large body of potential producers and consumers and accepted a marginal role for ourselves where we have been increasingly dependent upon Government patronage for our survival.

I would suggest a different and perhaps somewhat uncon ventional approach. The problem can be solved only if we produce items for mass rural consumption for which there is almost unlimited And to make this demand. demand real we have to increase rural incomes which can be done if we can find production methods which are labour intensive and can be undertaken in the rural areas. In other words, we have to develop villages based labour intensive production of pulp products which creates the purchasing power. To this purchasing power we sell items use'ul to mass of the rural people. In this

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way alone we can capitalize upon the vast developmental potential of the nation the vast market in rural areas and the vast labour force presently underutilized.

For example if we can produce pulp from non-usable agricultural wastes using solar energy in lean agricultural months, then we can produce let us say storage bins for foodgrains from this pulp. We would have solved the production and sales problems simultaneously. Of course, such production could require a component of advanced technology like polythene sheets which could be provided. We could have a combination of decentralized pulp production from straw and other agricultural wastes in the village using local labour and energy sources. Then collect it for producing paper and other items, which would again be consumed largely in the villages.

Another possibility would be use of strawboard to preserve moisture in the soil. Quality of finish not being important if it could be produced in the villages it could add to the production and employment drastically. One would only have to provide some chemicals and equipment from the industrial sector.

In brief, then, my suggestion for the pulp technologists is to orient themselves to the vast potential of production and consumption in our villages, lest later they have difficulty in answering the question that would be put by our millions : What did you do for us ?

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