

INDIA

General

Global meltdown of the financial sector has its impact on the Indian scene too, though not as severe as the advanced economies, primarily due to the country enjoying a better growth picture as compared to the world average, largely on account of about 85% of the GDP finding local utilization with a unique scenario of the economic reforms showing better support to the growth plans even with a growing human population. The downturn impacts are more in the form of shrinkage of demands with export volumes coming down and a need to exercise maximum conservationist approach in the prevailing business environment. The Government of India as well as the central bank of the country have been quite alert in arranging a slew of packages to stimulate demands and bringing down the interest rates etc respectively.

Forestry and Wood resource

Nevertheless, there is hardly any respite on the pressure on the forest produce with about 41 percent of the forest cover in the country already being degraded and dense forests are losing their crown density as well as productivity. Moreover, at present 70 percent of forests have no regeneration and more than 55 percent are prone to fire.

Thus, apprehension of scarcity of wood will be there. The annual fuel wood requirement in India is estimated to be about 200 million tons. Considering the capacity expansions of the wood based industries in the country, requirement of woody raw material in years to come would continue to grow faster. Currently, even as per the Government's own estimates, it is 82 million CUM. Therefore, undoubtedly there is an emerging imbalance between demand and supply of wood in the country. It is estimated that by the year 2010, while demand will go up to 95 million CUM, supply will not go beyond 70 million CUM. It is feared that the gap between demand and supply of wood raw material is bound to rise from 24.5 million CUM in 2010 to 52.3 million CUM in 2020.

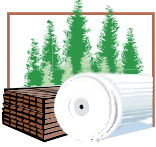
Pulp & Paper Sector

The pulp & paper industry is particularly plagued by inadequate availability of quality raw material. At present supply is supplemented from other sources such as agro-forestry. In absence of the Government's enabling policy for promoting Industrial Plantation, IPMA Member Mills have taken initiative on hand and approx. 0.25 million ha. of degraded land of marginal farmers has been scientifically utilized to grow pulpable varieties of trees. Also, courtesy India's liberalized industrial and trade policy, industry is able to import wood pulp, waste paper etc. to meet its fiber needs to quite an extent.

Environmental Governance

The Government of India's new instrument of governance is called National Environment Policy (NEP) 2006 which seeks to:

- Encourage adoption of science-based and traditional sustainable land use practices.
- Promote reclamation of wasteland and degraded forestland.



- Encourage watershed management strategies, for arresting and reversing desertification, and
- expanding green cover
- Promote sustainable alternatives to shifting cultivation where it is no longer ecologically viable.
- Encourage agro-forestry, organic farming, environmentally sustainable cropping patterns, and adoption of efficient irrigation techniques.

Government is also considering registration of nurseries and forest reproductive material.

Handicaps for the Indian Paper Industry

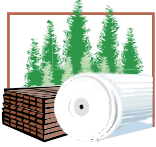
The most striking handicap is the conspicuous absence of a dedicated industrial plantation policy which can help build up a robust raw material base for the wood based industries. Though the industry is meeting substantial part of its current requirement of wood based raw material from the farm/agro forestry, these sources can not be said to be dependent models from economic sustainability point of view, as the wood production / procurement rates are quite high compared to international benchmarks. Government's afforestation policy has set a target of achieving a 33 percent green cover by 2012 as against 23 percent forest cover at present. This would require afforestation of nearly 34 million ha in the next 4 years which is quite a gigantic task, more so when the pulpwood plantations of less than 2 mn ha asked by the IPMA (the Paper Mill Association) since so many decades for developing captive plantations has not materialized so far.

- Government's Biodiversity Act - Under this act, the paper companies cannot claim land for plantations. Instead Joint Forest Management (JFM) of existing forests are advised, the mechanism of which does not permit participation of private industries in afforestation.
- Government's Tribal Rights Act – Produce in the forest lands produced by the inhabitants of the forests (the tribals) are now accepted under this Act. This creates further pressure on natural forests.

New Mechanism for Resource Mobilization – Multi Stakeholder Partnership (MSP)

Despite the handicaps, the Industry is pursuing the Multi Stakeholder Partnership (MSP) model as briefed below:

- The MSP model has been developed for augmentation of existing land resources by involving the Government Departments as the owner of the resources, inhabitants/users/local community dependent on these resources for their daily livelihood and the Industry proposing to organize effective use of these resources for meeting the raw material requirement.



- The MSP framework is proposed in a fashion that it is :
 - Not a lease document, but
 - Legally enforceable MoU partnership between
 - Company/user group, public or private
 - Local community
 - Forest department/land owning agencies

However, with the country currently in its general election mode, this initiative cannot be pursued as per the Code of Conduct during this period till a new Government takes office.

Industry's Recent Hallmarks

Notwithstanding the above, the Industry continues to make its serious efforts in plantations to report the following important hallmarks:

- 250 000 ha of farm forestry plantations
- Multiple species worked upon Eucalyptus, Casuarina, Leucaena, Acacia
- Successes in bio-technology based on research on Clonal multiplication
- 3 to 5 time increase in wood yield through Clonal technology

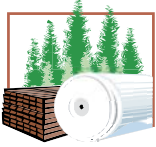
A few significant projects by IPMA Members are worth mentioning which have been recognized or merit recognition by the Government authorities and/or other International Schemes for improvement of planting stock through Tree Improvement Programme on for environmental improvement. These are as below:

- ITC Ltd (Paperboards and Specialty Papers Division)

7 projects already registered with UNFCCC to generate cumulative CERs to the extent of about 1.4 million.

90 000 ha. of plantation with a potential to sequester 12 million tons of carbon, reducing 43 million tons of CO₂ having a carbon credit value of US \$ 172 million in the first commitment period ending in 2012. The Project is under development but presently utilized to reduce CO₂ foot print and ITC is a carbon positive company.

- TNPL – its bio-methanation project is first CDM project implemented in the paper industry to generate 37 000 CERs a year. TNPL has about 82 955 CERs to its credit.
- JK Paper - The World Bank's Bio Carbon fund has signed an Emission Reduction Purchase Agreement (ERPA) that will enable small and marginal farmers to earn additional revenue through carbon credits. JK Paper Ltd. project covering 3500 hectares of severely degraded lands of marginal farmers for afforestation stands approved as a first ever project of its kind by World Bank.



- A P Paper Mills – Over the last 10 years, it has promoted farm and social forestry on more than 55 000 ha of degraded lands of small and marginal farmers and is developing a PIN to enable these farmers earn additional revenue through carbon credits.
- Emami Paper Mills – Have developed a reliable system to burn the primary sludge from the ETP in the AFBC Boiler thereby not only solving the solid waste disposal problem, but also saving fossil fuel (coal) by harnessing the heat value of the sludge. About 150000 CERs over a period of 10 years shall be generated by this process which is the first of its kind in the country.

Overseas Acquisition

- Ballarpur Industries Ltd. has recently acquired 97.8 per cent equity in Sabah Forest Industries (SFI), Malaysia.
 - SFI is the largest integrated paper & pulp facility in Malaysia with a 144 000 MT Paper plant and a 120 000 MT Pulping unit.
 - SFI has forest concessions of 289 000 hectares valid upto 2094. The enterprise value is US\$ 261 million.

New Vistas

- (1) Forest Stewardship Council (FSC) certification is becoming a non trade barrier for Indian paper companies. As bulk of the raw material is obtained from farm and agro-forestry, the farmers (huge numbers, running into hundreds of thousands with small holdings) find it practically impossible to form groups and obtain the FSC certificate. Though the farm forestry is a sustainable model promoted by the paper industry, the FSC principles and criterions are difficult to be satisfied for issuing of certificate. In this connection, GOI is thinking to establish Indian Forest Stewardship Council to help the process of certification.
- (2) Research work taken up to control diseases and pests by Semio-chemical, biological control on out-break of the pests which are reducing survival and productivity of Eucalyptus plantations. Forest Research Institutions, Agricultural Universities and the Indian Council of Agricultural Research along with Indian Paper Manufacturers Association (IPMA) have drawn up a plan and strategy on control measures as well as introduction of new germ plasm (species) in order to fight this menace so as to ensure availability of wood based raw material on continuous and sustainable basis.

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Mar 21, 2009