



BAMBOO: A POSSIBLE SOLUTION TO BRIDGE THE GAP BETWEEN ECONOMY AND ECOLOGY OF INDIA

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75% of Earth's land is degraded. "Land decay to displace tens of millions, a report warns". These are everyday headlines that begin our day. Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) carried out an assessment and reported that more than 75% of Earth's land area is significantly degraded and 40% of the global population is facing its threats.

In India, according to the 'State of India's Environment 2017: In Figures', there is an increase in the area undergoing desertification since the last 10 years in 26 of country's 29 states and that almost 30% of the land area is degraded or facing desertification. As claimed by the report human settlements, vegetation degradation and water as well as wind erosion are some of the drivers for this change, most of which are either direct or indirect consequences of anthropogenic activities. But let's not talk about problems anymore as they are obvious and a lot has already been discussed over it. The real question is 'What can be done to address this issue?' Well, there is an answer, "Bamboo"!

Bamboo has great ecological importance and provides several services. Being a grass, bamboo helps in soil binding and controls erosion. The giant grass helps in reducing sedimentation along the riverside, protects the river banks, serves as water purifier and helps in remediation of critical soils. The fast growth of the giant grass helps to sequester more amount of carbon than many other plant species. If managed

optimally, it has been estimated that 1 hectare of bamboo forest can help capture around 16 tons of carbon and mitigates approximately 60 tons of CO₂ greenhouse gas emission.

Now, let's talk about the economy of the 'green gold'. According to a report published by International Network for Bamboo & Rattan (INBAR), the global trade in bamboo and rattan amounted to 1.9 billion USD in the year 2012. But the total trade value is a lot more than the international trade figures would suggest. In China, where one fifth of the world's bamboo

products is made, the national production value of bamboo industry has increased from 13 billion USD in

2010 to 30 billion USD in 2015. Interestingly, India has nearly 16 million hectares of bamboo forests which is more than double of bamboo reported in China. And yet, the potential size of bamboo industry in the country was estimated around 4.35 billion USD for the year 2015.

The management and economics of bamboo in agroforestry practices are better than the other species. It has been estimated that one acre of well-managed bamboo plantation can generate up to Rs.100000/- per annum. The harvested produce can be utilized for small scale industries such as mat weaving, incense stick making, and handicrafts as well as in large industries like pulp and paper making, furniture, bamboo charcoal and bio-ethanol. Long story short, bamboo is a plant which has the potential to mitigate the threats of land degradation as well as uplift the national economy.

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