

## Bamboo Resources, People and the Environment

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Bamboo has been considered as one of the world's best sustainable natural resources. With a growth rate of up to a meter or more per day, bamboo holds the world record as the fastest growing plant. Bamboo is one of the most successful plants in the world. It is very fast growing and is resistant to bacteria, insects and disease. In Asia, the major bamboo producing countries are India (almost 11.4 million hectares) and China (over 5.4 million hectares), followed by Indonesia (2 million hectares) and the Lao People's Democratic Republic (1.6 million hectares). India accounts for roughly half the total area of bamboo reported for Asia and, together with China, approximately 70 percent. The humble bamboo is called 'green gold' in India, the country that has the second-largest reserve of bamboo in the world. The total area of bamboo reported by the five African countries makes up over 2.7 million hectares. This equals 4.1 percent of their total forest area. Ethiopia reported 6.5 percent and Nigeria over 14 percent of bamboo in the forest cover. There are over 111 genera of bamboo with about 1575 species globally and distributed in many countries. About 134 species belonging to 18 genera have been described from Indian sub-continent. Bamboo is able to adapt to a wide variety of ecosystems and climatic conditions. China has the highest bamboo biodiversity in Asia, with over 500 species, followed by Japan, India, Indonesia, Myanmar and Malaysia, each with more than a hundred species.

Bamboo has so many amazing qualities and greater interest which will lead to more bamboo forests and plantations which is a bonus for the environment



and the health of our planet. Bamboo takes in nearly 5 times the amount of greenhouse gasses, and produces 35% more oxygen, making it an efficient replenisher of fresh air. Some bamboo even sequester up to 12 tons of carbon dioxide from the air per hectare. Bamboo can also lower light intensity and protects against ultraviolet rays. Bamboos play an important role in local economies throughout the world and are of major national and international commercial importance in the Asia-Pacific region (INBAR 1999). The commercial consumption of bamboo globally is worth around \$10 billion, which is expected to reach \$20 billion by 2015. India's share in the global market is estimated to be \$1 billion and is expected to increase to \$5.7 billion by 2015. China's share in the world bamboo market is currently the highest at \$5 billion. Worldwide, more than 2.5 billion people trade in or use bamboo. The international market in bamboo products is worth more than US\$2 billion per year, as much as American beef. Bamboo related industries already provide income, food, and housing to over 2.2 billion people worldwide.

Bamboos are traditionally important raw material for housing, tools and other implements, musical instruments and other handicrafts (McClure 1966). Due to modern technological advances bamboos have become important in world markets in the form of pulp for paper, parquet, ply bamboo and as a canned vegetable (Dransfield and Widjaja 1995). They are also of great conservation significance because of their own diversity and because of the animal species that depend on them, the best known being the Giant Panda (Schaller et al. 1985; McNeely 1996). Despite the economic, social and conservation significance of bamboos, data on bamboo distribution and resources, especially in natural forests, are very limited.

The paper emphasizes the importance and strategies for large scale bamboo cultivation, conservation and utilization for sustainable livelihoods. Also, the paper highlights the multiple benefits including utilization of bamboo in combating global warming which is threatening all the living organisms on this planet.

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