

## Editorial

# Role of Bamboo in Ecosystem

**Ramakrishnan M<sup>1</sup>, Mingbing Zhou<sup>1,2\*</sup>, Baskar K<sup>3</sup> and Packiam SM<sup>3</sup>**

<sup>1</sup>The State Key Laboratory of Subtropical Silviculture, Zhejiang A & F University, China

<sup>2</sup>Zhejiang Provincial Collaborative Innovation Centre for Bamboo Resources and High-efficiency Utilization, Zhejiang A & F University, China

<sup>3</sup>Loyola Institute of Frontier Energy (LIFE), Loyola College, India

\*Corresponding author: Kathirvelu Baskar, Loyola Institute of Frontier Energy (LIFE), Loyola College, Tamilnadu, India

Received: May 01, 2018; Accepted: May 09, 2018;

Published: May 19, 2018

## Editorial

The environmental science that integrates physical science, biological science and information technology to study the environment and their problems. In Asian countries, the environment is exposed to various hazards. Bamboo is a major species in the grass family poaceae, with notable economic value cultural significance in South Asia and it occupies an important phylogenetic node in the grass family. It produces progeny from the same maternal bamboo plant and sexual reproduction with flowering intervals range from several to more than a hundred years. There are more than 75 genera and more than 1,300 species of bamboo are cultivated around 25 million hectares worldwide. Bamboo can be found in diverse climates, ranging from hot tropical to cool mountainous regions and highland cloud forests and China, Japan, Korea, India, and Australia, all have many endemic species. It plays a major role in the environment because it supports lower light intensity and protects against ultraviolet rays. It also helps to reduce the deforestation rate.

In the environment, bamboo development reduces the pollutions. It reduces up to 35% carbon dioxide and delivers more oxygen to the environment and it reduces the use of timber consumption. Naturally, it has a waxy surface which makes it free from health hazards and it can be utilized as reinforcement for concrete. Bamboo root helps to control soil erosion in the forest. It consumes high amounts of nitrogen and this helps to decrease water pollution. Bamboo is fastest growing plant on the earth; some species of bamboo grow 91 cm within a day. Therefore, it can be harvested within 4-5 years unlike most softwood 15-20 years and replaced without destroying the environments with biomass of 2-5% unlike wood 10 – 30%. It is a high yield renewable resource and bamboo raw materials are used in wood industry for various household products and it is also used in engineering and construction and it has a compressive strength than wood. The uses of bamboo are not new; these have been regularly used in villages for centuries. These diverse of application of bamboo make bamboo environmental friendly and easily adaptable. However, a serious health and safety issue surrounds in the handling of bamboo materials with formaldehyde in the industry which makes harmful to the environment. Till date, no specific standard is stated in the industry. However, due to environmental hazards, bamboo development has been reduced. In conclusion the use of bamboo plant as a raw or substitute material for construction could be help toward building a sustainable environment. Further, uses of bamboo in the Asian countries, and due to it are susceptible to biotic and a biotic stress, further research should be conducted to find out their molecular mechanism and properties of the species. Also, peoples should be encouraged the use of bamboo to the low-income housing scheme, furniture making, finishing materials Promoting the bamboo growing will reduce the deforestation rate and will protect the biodiversity and environment.