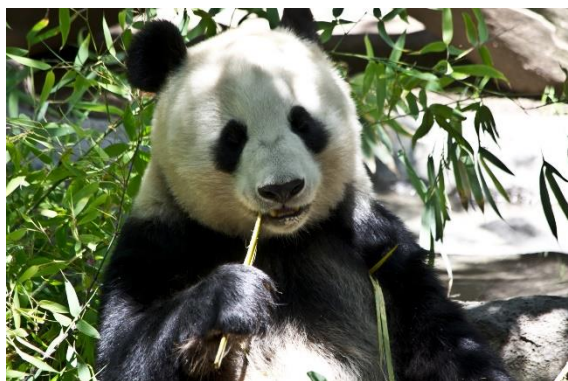


Bamboo, rattan and biodiversity

Bamboo and rattan play a key role in biodiversity conservation, forest management and land restoration, and many of the world's most iconic and endangered species rely on these plants for their survival.

September 2019

A SOURCE OF FOOD



A huge range of animals, including a number of endangered species, rely on bamboo and rattan as a source of food. In Asia, the giant panda is renowned for its bamboo diet, eating up to 40 kg a day. The red panda, mountain gorilla, Indian elephant, South American spectacled bear and Madagascar bamboo lemur also rely on bamboo as a source of food. Rattan fruits also provide nutrition to a number of birds, bats, monkeys, and the Asian sun bear.

As well as feeding animals in the wild, bamboo can be an important part of fodder for a range of livestock, providing an inexpensive, year-round feed source for cows, chicken and fish.

A SOURCE OF SHELTER

Bamboo and rattan also provide an important source of habitat to many creatures. The endangered ploughshare tortoise in Madagascar and the South

American bamboo rat both live in bamboo thickets. At least 5 per cent of bird species in the Amazon rainforest are dependent on bamboo. The African mountain bongo relies on bamboo thickets for food and shelter during the dry season. 'Bamboo fungus', a delicacy in parts of Asia, grows exclusively within bamboo forests.

Bamboo culms also provide important habitat for numerous invertebrates. Certain species of frog lay their eggs in broken bamboo culms; one species of spider lives inside bamboo; and certain kinds of butterfly rely on bamboo culms as food during caterpillar stage. Colonies of ants frequently make their homes inside rattan plants.

A TOOL FOR FOREST MANAGEMENT

Bamboo is an important plant for conserving soil and protecting watersheds. Its extensive root and rhizome systems bind soil and allow for annual regrowth after harvesting. They also mean that the plant can survive



and regenerate when the biomass above ground is destroyed by fire, flooding or drought. For these reasons, an increasing number of INBAR Member States—including Cameroon, China, Ethiopia, Ghana, India, Kenya, Madagascar, the Philippines and Vietnam—are using bamboo for catchment rehabilitation, regulation of water flow and erosion control.

POVERTY ALLEVIATION



Today, bamboo and rattan are already among the world's most valuable non-timber forest products, and provide an important source of cash income for millions of people. Bamboo and rattan are excellent plants for integrating communities into biodiversity conservation management. With the right training and awareness-raising, local residents can use bamboo and rattan as a sustainable source of income, while also protecting these plants and the forests in which they live.

CONSERVING BAMBOO AND RATTAN

Unfortunately, in some places, the importance of bamboo and rattan products in local economies has

led to overexploitation and a decline in the supply of these plants. Because most species grow in forests, bamboo and rattan species are also intrinsically vulnerable to deforestation.

Part of the problem arises from the fact that bamboos and rattans are not trees, and so are often not included in forestry policy, despite their importance as non-timber forest products. In 2010, INBAR worked on a Bamboo Biodiversity Project as part of the EU-China Biodiversity programme, which provided a number of recommendations for how to balance biodiversity conservation and the productivity of bamboo forests, to optimise their ecosystem services. The project was instrumental in the development of China's national bamboo policy, which is helping to improve the sustainable management of the country's bamboo forests.

IN ACTION...

As part of INBAR's ongoing Dutch-Sino-East Africa project, bamboo has been planted in buffer zones of two national parks. As well as providing local communities with a sustainable material for construction and handicrafts, bamboo is also protecting the habitat of local mountain gorillas. Communities are now invested in the management of local bamboo resources for biodiversity conservation. The project is an excellent example of how bamboo can support several of the Sustainable Development Goals: alleviating poverty, reducing deforestation and protecting biodiversity.

ABOUT THE INTERNATIONAL BAMBOO AND RATTAN ORGANISATION

The International Bamboo and Rattan Organisation (INBAR) is an intergovernmental organisation which promotes the use of bamboo and rattan for sustainable development.