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China's Practice in Implementing the Global Development Initiative and Promoting "Bamboo as a Substitute for Plastic"

Replacing plastics with bamboo involves constant scientific and technological progress. Bamboos are renewable biomass resources that can replenish themselves faster than common plants. They have multiple ideal properties: high density, hardness, and toughness, and high tensile strength and compressive resistance parallel to grain. Bamboo has been used in construction, water conservancy and transportation, household items, industrial production, among other fields, as thousands of bamboo-related products across a dozen categories are available. Efforts have been intensified in the R&D of bamboo products to replace plastic products and also in the creation and targeted cultivation of high-quality germplasm resources. Specifically, the Chinese government has improved the top-level design by incorporating bamboo as a substitute for plastic into its national development strategies, which showed staunch support from Chinese policymakers and a concrete step to act on the initiative to promote bamboo as a substitute for plastics.

Reducing Plastic and Carbon Emissions to Promote Green Development

Plastic pollution poses a serious threat to the survival of marine life and human health. Replacing plastics with alternatives can cut the use of plastics, thus reducing plastic pollution from the source. Bamboo is a renewable green resource, featuring rapid growth, low management cost and a strong carbon fixation capacity. Promoting bamboo as a substitute for plastics is a nature-based solution that can reduce carbon emission and achieve green development. The "Bamboo as a Substitute for Plastic Initiative", jointly launched by the International Bamboo and Rattan Organization (INBAR) and the Chinese government, is set to lead a worldwide green revolution in the new era.

Joint Efforts to Control Marine Plastic Pollution and Protect the Marine Environment

Plastic waste accounts for about 80% of marine litter. Marine plastic pollutants disintegrate into microplastics, ending up in the deep sea. To address the marine plastic pollution, the Chinese government has adopted a series of measures such as reducing plastic use from the source, finding alternatives, enhancing plastic recycling, and carrying out plastic governance. Meanwhile, protecting the marine environment has become a nationwide campaign, featured by wide participation and central guidance. Xiamen, a coastal city in Fujian Province, pioneered a garbage management method of "safeguarding estuaries against incoming pollution". It has helped intercept river garbage and block the flow of estuary garbage to the ocean, setting a great example for other coastal cities.

Anji's Eco-conservation Practice: "Substituting Bamboo for Plastics"

Anji at the forefront of China's ecological conservation and has faithfully implemented the "Double-Eight Strategy" proposed by President Xi Jinping. To improve its ecological protection efforts, the county, under the guidance that lucid waters and lush mountains are invaluable assets, has explored viable practices to replace plastic with bamboo. It has blazed a trail and taken the lead in achieving carbon neutrality and emission peak.

Growing Bamboo Outdoor Products Industry and Boosting Green Development of "Substituting Bamboo for Plastics"
—Bamboo Products Developed by Zhejiang Hengfeng Top Leisure, An Outdoor Leisure Goods Provider

"Bamboo as a substitute for plastics" is a Chinese solution for achieving UN Sustainable Development Goals (UNSDGs), drawing from 30-plus years' experience of bamboo industrial development. As a global leader in outdoor gears, Zhejiang Hengfeng Top Leisure seized the opportunity brought by the green transition and spearheaded "replacing plastic with bamboo". The company used bamboo pulp products instead of plastics as packaging lining materials and tapped other bamboo materials to make outdoor recreational products. It has protected the environment and boosted local bamboo-growing farmers' income. As an outdoor recreational solution provider, the company has promoted the initiative of "bamboo as a substitute for plastics" and spurred the sustainable development of the bamboo industry.

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The Approach to Expanding Carbon Sinks in Urban Green Space Construction

Urban green space is part and parcel of the sustainable development in modern cities and the urban ecological environment. Only if we rationally use and protect urban green space and integrate urban green space construction into the national strategy to achieve carbon neutrality and emission peak, can we improve urban carbon sink capacity. This is an effective path to pursue green and low-carbon development, carbon neutrality and emission peak, as well as a harmonious system that integrates economic, social, cultural and ecological development.

Yancheng of Jiangsu Explores a New Path for Carbon Sequestration and Afforestation

To achieve carbon neutrality and emission peak, Yancheng Municipality of Jiangsu Province explores new ways to increase carbon sink capacity. It has accelerated the coastal forest project to protect its thousand-mile seawall, the project of building new coastal plantations, and the project of desalinating saline-alkali desert beaches. Its success in piloting forest carbon sinks, which is an experiment for achieving carbon neutrality and emission peak, showcases an accelerated process of afforestation and its exemplary role in increasing carbon sinks and sequestration and reducing urban carbon emission to cope with climate change.

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Intangible Cultural Heritage Protection and Climate Change—Updates in Implementing UNESCO Strategies

Given the two-way interaction between intangible cultural heritage and climate change, UNESCO, under the framework of the Convention for the Safeguarding of Intangible Cultural Heritage, has done a series of strategic work to help countries and communities cope with, mitigate and adapt to climate change. Through mechanism establishment, resource-sharing and cooperation with the cultural and climate sectors, it has made progress on both fronts.

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Foundation, Inheritance and Exploration—Forty-year Development of Forestry History Studies at Beijing Forestry University

The study of Chinese forestry history, in synchrony with modern forestry, enjoys a history of one hundred years. Since the 1980s, Beijing Forestry University (BFU) has become an important hub of forestry history studies in China. After forty years' painstaking efforts, several generations of hard-working researchers at BFU have laid a solid foundation for the study of the Chinese forestry history. In the 21st century, with the guidance of "relying on subject research and carrying out discipline construction", they have achieved all-round development in forestry history studies and its discipline construction. When China has been stepping up ecological conservation in this new era, they have engaged in major projects, for instance the compilation of the Chinese Encyclopedia—Forestry. With new research platforms, they have made breakthroughs in research and discipline construction. Thanks to their efforts and a solid foundation for forestry history research and discipline construction, BFU is set to open a new chapter in its academic and personnel development.

Opportunities and Challenges Facing Forestry History Studies in the New Era
—Summary of the 2022 Annual Meeting of the Forestry History Branch of the Chinese Society of Forestry

On November 19, 2022, the Forestry History Branch of the Chinese Society of Forestry held a webinar on the Chances and Challenges Facing Forestry History Studies in the New Era and the 40th anniversary of the Forestry History Research Office of Beijing Forestry University. More than 80 experts from universities and research institutions across the country, including the Chinese Academy of Sciences, Peking University, Minzu University of China, Chinese Academy of Forestry, Chinese Society of Forestry, and China Forestry Publishing House, attended the meeting. To serve China's national strategies and strengthen personnel training and the forestry discipline, participants called for compilation of forestry classics, multidisciplinary integration, and construction of the discourse system of forestry history studies.

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Turning Trash to Treasure: The Recycling and Processing of Dead Branches and Fallen Leaves

On December 27, 2022, in the 5th National Science Experiment Exhibition and Performance organized by the Ministry of Science and Technology and the Chinese Academy of Sciences, "Turning Trash to Treasure: The Recycling and Processing of Dead Branches and Fallen Leaves", a work by Beijing Forestry University, won the second prize. Debuted in the National Week of Forestry and Grassland Science and Technology, it illustrates the principles and ecological values of processing and utilizing wastes from urban landscaping. As a bold experiment in promoting and popularizing scientific concepts and approaches, the work vividly demonstrates how to collect, transport, dispose of, and recycle wastes generated from urban landscaping.

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Ode to the Three-River Source