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## **Construction experts call for bamboo to become 21<sup>st</sup> Century building material**

**May 16, 2016.** Bamboo has a critical role to play in the provision of safe and affordable housing and could be a key contributor to greener urban environments worldwide, according to a leading group of academics, architects and construction experts.

This strategic resource combines rapidly renewable properties, strength, and cost-effectiveness – making it an ideal building material and a potential driver of sustainable development in many parts of the world.

The case for bamboo is outlined in the '[Pittsburgh Declaration](#)' – a global call to action that seeks to increase international recognition of the benefits of bamboo, and outline recommendations designed to more effectively harness the plant as a building material.

Its benefits have been recognized recently, following earthquakes in Nepal and Ecuador, where bamboo structures often fared better than buildings made from conventional construction material such as concrete. Bamboo is now expected to play an important role in both countries' reconstruction.

The Declaration follows a meeting at the University of Pittsburgh - the 'Symposium on Bamboo in the Urban Environment,' part of a US-State Department and UK British Council-funded Global innovation Initiative (GII) project that is supporting the development of bamboo as a sustainable and engineered alternative construction material.

The meeting, which brought together academic, private sector and civil society actors from 14 countries and territories, was jointly organized by the University of Pittsburgh, Coventry University, and the [International Network for Bamboo and Rattan \(INBAR\)](#), a multilateral organization with 41 member states.

To ensure bamboo is harnessed more effectively and becomes a viable building material for the future, the Declaration makes several recommendations. A key consideration is international

standards - the plant's use in modern structures has been previously hampered by a lack of formal standards and codes.

The Declaration therefore invites all bamboo-producer and consumer countries to participate in bamboo standard development within the newly established International Standards Organization (ISO) Technical Committee 296; and to share information and coordinate efforts on a new harmonized, best-practice international ISO design standard for round culm bamboo.

Other recommendations include inviting businesses, industry and academia to advance national and international standards cooperation; encouraging researchers and business to validate the adoption of testing standards; and requesting the development of a new standard on the structural uses of laminated bamboo.

“The Pittsburgh Declaration clearly demonstrates a growing consensus among experts on the need to harness bamboo as a building material,” says Oliver Frith, INBAR’s Global Programme Director. “Bamboo is a practical, cost-effective and sustainable option that will provide affordable, and as we have seen recently in Nepal and Ecuador, resilient and secure homes. The recommendations included in the Declaration are an important milestone and offer a framework to ensure the plant plays a more significant role in construction.”

“The international standardization process promulgated by the Declaration is instrumental to developing broad recognition of bamboo as an engineered construction material,” says Kent Harries, FACI, FIIFC, P.Eng., Associate Professor of Structural Engineering and Mechanics at Pitt’s Department of Civil and Environmental Engineering, and conference organizer. “Our continuing research at Pitt and other institutions have shown bamboo is one of nature’s perfect building materials, and is primed for greater international use. As the global population continues to increase and the threat of natural and climate disasters threaten greater numbers of people, bamboo is especially poised to become our go-to material for emergency shelters.”

## **NOTES TO EDITORS**

### **Pittsburgh Declaration**

The Pittsburgh Declaration is a call to action to promote bamboo and initiate more strategic efforts to harness this strategic resource as a practical, affordable and sustainable building material. The Declaration was issued at the conclusion of the ‘Symposium on Bamboo in the Environment,’ held at the University of Pittsburgh, USA, May 4-6, 2015. The Symposium brought together academic, private sector and civil society actors from 14 countries and territories, and was jointly organized by the University of Pittsburgh, Coventry University, and INBAR. The Declaration can be downloaded [here](#). The recorded proceedings of the Symposium will be archived and made freely available through both the University of Pittsburgh and INBAR websites.

### **The International Network of Bamboo and Rattan (INBAR)**

INBAR is an intergovernmental organization established in 1997 dedicated to improving the social, economic and environmental benefits of bamboo and rattan. INBAR plays a unique role in finding and demonstrating innovative ways of using bamboo and rattan to protect environments and biodiversity, alleviate poverty and facilitate fairer pro-poor trade. INBAR connects a global network of partners from the government, private, and not-for-profit sectors in over 50 countries to define and implement a global agenda for sustainable development through bamboo and rattan. [www.inbar.int](http://www.inbar.int)

### **INBAR Construction Taskforce**

The bamboo construction taskforce, facilitated by INBAR, coordinates the activities of international research institutes and commercial companies interested in the structural uses of bamboo. The Taskforce supports INBAR's membership of the Global Network for Sustainable Housing – the world's premier knowledge network on sustainable housing, hosted by UN-Habitat in Nairobi. Its overall objective is to act as the world's premier information and knowledge center on structural uses of bamboo. [www.inbar.int/taskforce](http://www.inbar.int/taskforce)