



*International Workshop on:*

# Sustainable Development of Biobased Construction Materials in Brazil

University of Surrey and  
the Federal Rural University of the Amazon  
supported by the British Council

**1-3 July 2025**

**Belém, Brazil**





*The Arc – Green School Gymnasium, Bali, Indonesia (Photo: Thomasso Riva)*

## What is the project all about?

To tackle the climate crisis and support the UN Sustainable Development Goals (SDGs), the use of sustainable, carbon-sequestering construction materials is essential. Bio-based materials are necessary to address this, but reliance on trees alone is insufficient, particularly in regions where commercial forestry is underdeveloped. Tropical bamboo and palm have huge worldwide potential, but particularly in Brazil, for sustainable construction and circular economic development; these are low cost and widely available. Natural bamboo (NB), in use as culms, grows faster and fixes more carbon than commercial forestry timber. Engineered bamboo (EB), used as manufactured products, has one of the lowest environmental impacts compared with traditional structural

materials. Palm is also widely available in Brazil, with especially high diversity in the Amazon, and provides trunks, leaves, and varied fibers with great potential to produce construction materials at an industrial scale.

Workshop delegates will benefit from the expertise of facilitators that are experts in the full lifecycle concepts from plantation or forest management, growth & harvesting; through material treatment & production; through engineering behaviour of the products & their use in construction. Workshop facilitators come from different universities & are members of an existing worldwide coalition of experts dedicated to promoting the use of bio-based construction materials.

# Who is involved?

This research was supported by British Council's Amazon +10 Workshop Programme Project No 1181214007 under the International Science Partnerships Fund (ISPF). The Spatial Structures Research Centre of the University of Surrey, UK and the Federal Rural University of the Amazon (UFRA), Brazil are the organisers and the workshop will be taking place in Belém, Brazil, host of the COP 30 climate conference.

The International Science Partnerships Fund is designed to enable potential and foster prosperity. It puts research and innovation at the heart of our international relationships, supporting UK researchers and innovators to work with peers around the world on the major themes of our time: planet, health, tech, and talent. The fund is managed by the Department for Science, Innovation and Technology and delivered by a consortium of the UK's leading research and innovation bodies, which includes: UK Research and Innovation (comprising the 7 research councils, Innovate UK and Research England), the UK Academies, the British Council, the Met Office, the National Physical Laboratory, the UK Atomic Energy Authority, and Universities UK International.

The workshops will be co-ordinated by Dr S Alireza Behnejad (University of Surrey) and Dr Lina Bufalino (UFRA). The workshop will also be supported by professional mentors: Dr Leila Meneghetti, Prof Holmer Savastano Junior, Dr Marzieh Kadivar and Dr Dan Bompa.



Supported by





## What is CIFAL Surrey?

The new United Nations Institute for Training and Research (UNITAR)-affiliated CIFAL centre at the University of Surrey has been set up to drastically improve the UK's ability to address climate change.

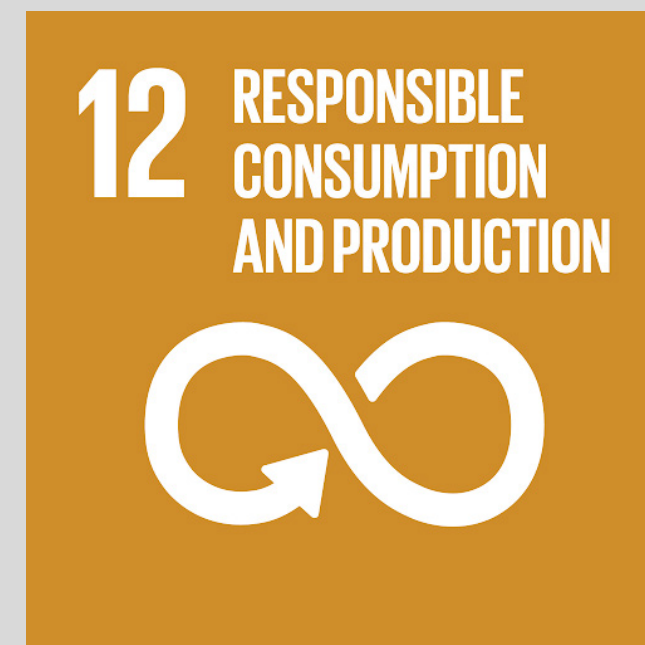
Drawing on the University's strong research heritage and active engagement in sustainability, the CIFAL centre (Centre International de Formation des Autorités et Leaders), CIFAL Surrey, will work with UNITAR (the UN's training branch) and the CIFAL Global Network among other stakeholders to lead both training and capacity-building initiatives in sustainability. The focus of CIFAL

Surrey will be on empowering climate leadership through enhanced climate literacy within and beyond Surrey.

As part of its activities, CIFAL Surrey will work in partnership with national and local government, industry, civil society, and beyond, developing sustainable economic practices, and helping to advance action towards the UN's Sustainable Development Goals.

Situated within the University's Institute for Sustainability, CIFAL Surrey will draw strongly on multi-disciplinary expertise in delivering both training and capacity building on a wide range of sustainability challenges, to help facilitate knowledge exchange among leaders in government, the private sector, and civil society – locally, nationally and internationally, as well as UK-based international organisations.

**Workshop participants may apply for a UNITAR / CIFAL Surrey Certificate of Completion, subject to meeting the learning requirements and covering the associated costs.**





# Workshop co-ordinators and mentors



Alireza Behnejad



Lina Bufalino



Holmer Savastano Junior



Leila Meneghetti



Dan Bompa



Marzieh Kadivar



## Available funding:

If you are an early career researcher in the UK or Brazil, you may be eligible to receive the British Council funding to cover the costs related to the participation to the workshop. The funding could contribute towards the workshop registration fees, travel (both, international and local), accommodation in Belém and meals. Please complete the APPLICATION FORM attached to this flyer and email it to [ssrc@surrey.ac.uk](mailto:ssrc@surrey.ac.uk). Applications will be considered on a first come, first serve basis for this limited available fund. PhD candidates who are awaiting the results of their viva are eligible to apply for funding.



Central Building (Prédio Central) UFRA, Belém (Photo: UFRA)



# What are the workshop's aims?

The key aims of the workshop are to:

- Explore the gap between potential versus current use of bio-based construction products in Brazil and Amazon in particular
- Examine the value chain and explore business opportunities for industrialisation of desired products
- Knowledge exchange between the researchers from both countries (and beyond)
- Identify the research required to support business ideas and commercialisation
- Create a forum for the stakeholders to consider the local situation for having a global impact
- Showcase the success stories of companies in the field of design and manufacturing the bio-based construction materials
- Strengthen and grow the network of researchers from the UK and Brazil (and internationally)





# What to expect

- In-person and online keynote lectures (from different parts of the world) to better understand both the local and global contexts
- Interaction between the UK and Brazil participants during the roundtable and group discussions
- Active-learning techniques and hands-on activities
- Field trips to riverside communities to learn their use of sustainable materials for construction
- Interaction with the local community and the experts through technical tours



## Target Audience

The workshop is aimed at early career practitioners in academia, predoctoral, doctoral & post-doctoral researchers in universities in architecture, building sciences, civil engineering, structural engineering, forestry, agriculture engineering, environmental engineering & sustainability, bioengineering & non-conventional construction materials. Also, entrepreneurs and potential stakeholders in a broad area of reforestation, waste management, construction and infrastructure are encouraged to take part.

These individuals should be researching aspects related to the use of bio-based construction materials (e.g. bamboo and palm). Some of the target audience may not be eligible for the financial support provided by the British Council, however, they could apply for alternative funding.

Bengaluru Kempegowda International Airport (Terminal 2), India  
(Photo: Ar. Ekansh Goel © Studio Recall)





# Register Today!

Send an email to the Spatial Structures Research Centre of the University of Surrey ([ssrc@surrey.ac.uk](mailto:ssrc@surrey.ac.uk)) to indicate your interest and you will receive relevant information.

You may also contact [madeira.ltpf@ufra.edu.br](mailto:madeira.ltpf@ufra.edu.br) in Portuguese.