



THE UNIVERSITY *of* EDINBURGH

Edinburgh Research Explorer

Shelter Research at The University of Edinburgh

Citation for published version:

Reynolds, T, Huang, Y & Beckett, C 2018, 'Shelter Research at The University of Edinburgh', The 22nd UK Shelter Forum, London, United Kingdom, 8/06/18 - 8/06/18.

Link:

[Link to publication record in Edinburgh Research Explorer](#)

General rights

Copyright for the publications made accessible via the Edinburgh Research Explorer is retained by the author(s) and / or other copyright owners and it is a condition of accessing these publications that users recognise and abide by the legal requirements associated with these rights.

Take down policy

The University of Edinburgh has made every reasonable effort to ensure that Edinburgh Research Explorer content complies with UK legislation. If you believe that the public display of this file breaches copyright please contact openaccess@ed.ac.uk providing details, and we will remove access to the work immediately and investigate your claim.



Shelter research at The University of Edinburgh

Influence of the Global Challenges Research Fund

The GCRF aims to direct cutting-edge research towards challenges faced by developing countries. UoE is one of the main recipients of this fund due to its diverse expertise and its focus on vulnerable communities.

<i>Description</i>	IRIS-Fire sets out to develop new methods and tools to evaluate and model fire risks in informal settlements. This includes carrying out surveys in the community and using a novel application of existing satellite data.
<i>Target</i>	Informal settlements in Cape Town, South Africa. Annually there are 500 deaths and 15,000 fire-related hospital admissions due to fire in the city.
<i>Local Partnerships</i>	Western Cape Disaster Management, Fire and Rescue Service and Stellenbosch University.
<i>Aim</i>	Recommend any necessary sociological changes in the targeted community. Create a model to assess fire risks in informal settlements which is applicable around the world.

Improving Resilience for Informal Settlements Fire (IRIS-Fire)



Resilience of the Built Environment to Cyclones (REBEC)

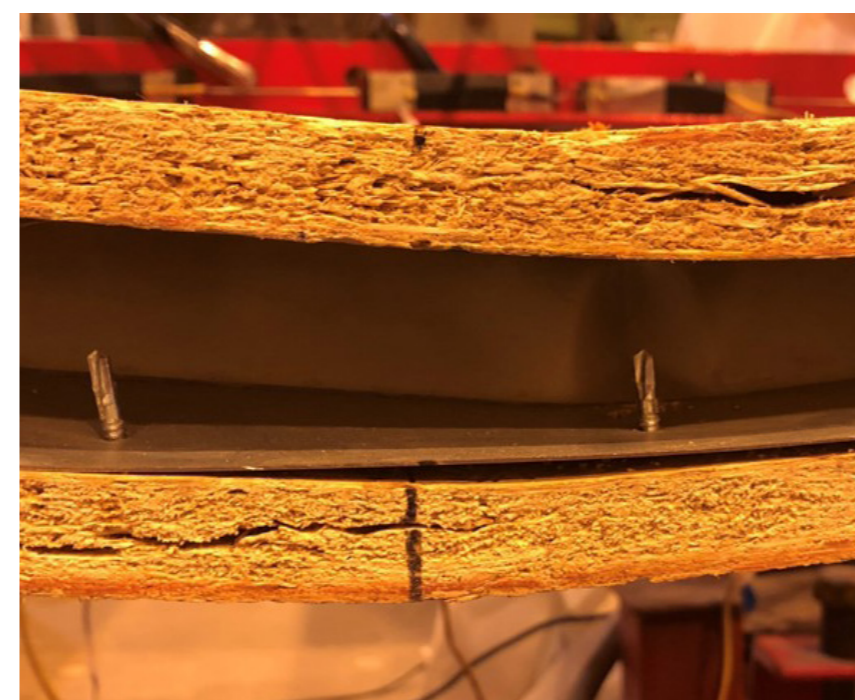


<i>Description</i>	REBEC assesses the exposure of an area (e.g. the predicted wind loads), the sensitivity (e.g. construction materials) and adaptive capacity (social infrastructure or construction practice).
<i>Target</i>	Indigenous houses in Madagascar. In 2017, 81 deaths and over 300,000 buildings were destroyed as a result of cyclone Enawo.
<i>Local Partnerships</i>	Local Engineering Association, researcher, policymakers and community leaders.
<i>Aim</i>	Provide a set of recommendation to improve the resilience of communities that are vulnerable to cyclones in Madagascar and elsewhere.

How can academia contribute to the Humanitarian agenda?

By helping the humanitarian sector become more sustainable through objective and critical research. At UoE, projects focus on prevention and recovery, helping to bridge the gap between development and humanitarian.

<i>Description</i>	Using composites behaviour to create a system for structurally efficient, lightweight, rapid urban construction.
<i>Target</i>	Low quality housing in India and South-East Asia.
<i>Local Partnerships</i>	Influence sustainable producers of plantation timber in Malaysia to minimise stress on forest resources.
<i>Aim</i>	Decouple development from concrete production whilst helping create a self-sufficient and resilient built environment.



Composite Cold-Formed Steel and Timber Panels



Database for Sustainable and Energy Efficient Materials in sub-Saharan Africa (DEEMA)

<i>Description</i>	DEEMA aims to provide detailed information on the performance and life-cycle environmental impact of materials which is currently lacking in the sub-Saharan context.
<i>Target</i>	Initially Uganda, but later on sub-Saharan built environment professionals.
<i>Local Partnerships</i>	Local researcher and architect and local built environment manufacturer.
<i>Aim</i>	Help built environment professionals achieve more sustainable building designs and thus help achieve more resilient cities.