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## **Northumbria's 'Banana Split: Unpeeling a New Energy Source' project highly commended at prestigious Green Gown Awards**

The University's project received recognition in the Research with Impact category for its innovative work converting agricultural waste in rural Pakistan into sustainable textiles and clean energy.

Led by Dr Jibrán Khaliq from Northumbria's School of Engineering, Physics and Mathematics, the project addresses two critical global sustainability

challenges: plastic pollution from synthetic textiles and reliance on fossil fuels in communities with limited energy access.

Paul Steadman, Sustainability Manager at Northumbria University, said: "This recognition highlights the hard work of our researchers and the university community in developing practical solutions for responsible consumption and production".

The project has the potential to turn increasing banana farming and other agro-waste into value added products through a circular economy model. Fibres from banana plants are extracted and spun into biodegradable, ethical textiles that offer an environmentally friendly alternative to conventional materials used in fast fashion.

The remaining plant waste is then transformed into syngas, a renewable gas produced from waste that provides clean, locally sourced energy and reduces carbon emissions.

Dr Khaliq said: "This recognition highlights how research can deliver real-world impact. Our solution not only benefits Pakistan's textile industry but also brings clean, affordable energy to rural communities while improving soil fertility through biofertilizer production."

The judges praised the initiative as, "a strong project with positive impact on communities, and tangible environmental, social and economic benefits."

Established in 2004, the Green Gown Awards celebrate sustainability excellence across UK and Ireland tertiary education, recognising exceptional initiatives that demonstrate environmental and social impact across teaching, research, operations, and community engagement.

This latest recognition continues Northumbria's success at the Green Gown Awards. In 2024, the Renewable Energy Northeast Universities (ReNU) doctoral training programme was highly commended in the Tomorrow's Employees category, with judges describing it as ambitious with significant potential for global impact.

In 2020, the Student Law Office was highly commended in the "Benefiting Society" category at the International Green Gown Awards, celebrating its

work providing free legal services.

The University was also a finalist in 2018 for student engagement, recognised for sustainable partnerships with Sodexo and Chartwells in delivering accommodation, retail and catering services.

Working in partnership with the National Textile University and Prime Eurotech in Pakistan, and UK-based Eco Research Ltd, the current project further demonstrates Northumbria's commitment to international collaboration and research that drives global impact.

Explore more of Northumbria's sustainability research:

<https://www.northumbria.ac.uk/about-us/environmental-sustainability/>

#GreenGownAwards #Research #Sustainability #SAFERproject #Innovation  
#CleanEnergy

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UNIVERSITY OF THE YEAR 2022 (Times Higher Education Awards)

Northumbria is a research-intensive university that unlocks potential for all, changing lives regionally, nationally and internationally.

Two thirds of Northumbria's undergraduate students come from the North East region and go into employment in the region when they graduate, demonstrating Northumbria's significant contribution to social mobility and levelling up in the North East of England.

Find out more about us at [www.northumbria.ac.uk](http://www.northumbria.ac.uk)

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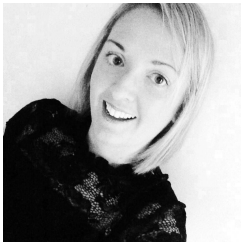
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