



University of
Nottingham
Rights Lab

Research to help end modern slavery

Rights Lab

nottingham.ac.uk/rights-lab

The world's largest and leading group of modern slavery researchers

Pictured: A mural created by slavery survivors. Courtesy of Joel Bergner and local partners. The Rights Lab is committed to ensuring that survivors have leadership roles and influence antislavery policies.

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We now estimate that more than a third of the world's slavery is visible from space



Pictured: An enslaved worker in a north Indian brick kiln; the Rights Lab has mapped slavery across the Brick Belt from space. Courtesy of Free the Slaves.

Measurement and Geographies Programme

How many people are enslaved in the world and where are they?

To tackle modern slavery, we need to know how many people are enslaved and where they are. Robust measurement and analysis give us the foundations from which to build effective action: governments need to be able to measure slavery prevalence in order to design and resource appropriate policy responses; an accurate understanding of the location and prevalence of slavery can help NGOs plan more effective programmes on the ground; and businesses benefit from understanding slavery prevalence linked to particular commodities.

In our Measurement and Geographies Programme, geographers, political scientists, sociologists, mathematicians, environmental scientists, development studies experts and business systems specialists have made globally recognised advances in measuring the risk and prevalence of modern slavery and understanding its geographies. Geographies of modern slavery offer an understanding of drivers and impacts in space and time. Using a mixed methods approach, including machine-learning, scenario modelling, qualitative surveys and citizen science, we measure and contextualise slavery.

For example, our Slavery from Space initiative uses geospatial observation to map and measure slavery. We now estimate that more of a third of the world's slavery is visible from space. Working with data providers, imagery analysts and AI experts, we are harnessing the value of satellite data for anti-slavery action: analysing imagery to find and predict the locations of high slavery-prevalence industries and hotspots.

For example, we use satellite remote sensing data to:

1. provide a rigorous estimate of the number of brick kilns, known to be sites of modern slavery, across the 'Brick Belt' that runs across south Asia
2. assess the relationship between tree loss and modern slavery across four countries, Brazil, Ghana, Indonesia and Mozambique
3. monitor fluctuations in the location and number of informal settlements in southern Greece where migrant labourers were in conditions of labour exploitation
4. map and track artisanal cobalt mining activities known to use child labour in the Democratic Republic of Congo over a ten-year period

One focus for this programme is how to identify and assess the environmental impact of modern slavery and the climate change nexus. This includes mapping the ecological dimensions of human vulnerability to modern slavery and the synchronous occurrence of environmental degradation and modern slavery in agricultural, forest, marine, and freshwater ecosystems. We identify modern slavery risk factors in specific settings, use applied social-ecological systems approach and mixed methods to construct longitudinal prevalence estimates for key sectors, and help to develop mitigation strategies.

Our resilience framework is revealing how cities can become slavery-free



Communities and Society Programme

Why does slavery persist and what creates resilience against modern slavery?

If we understand why slavery exists today, we will have a better chance of ending it. Efforts to prevent slavery, discover victims, and provide support for survivors draw upon a complex web of services at locality-level. Yet development of coherent anti-slavery policy at the sub-national and local level is frequently ignored or underfunded. Similar to other global challenges, such as climate change, modern slavery requires local action to underpin international and domestic legislation.

In our Communities and Society Programme, sociologists, political scientists, and scholars of education, law, cultures, and business are showing that community engagement remains—as across history—an essential facet of the anti-slavery movement. Our slavery-free communities project aims to establish how we might work locally, as well as nationally, to create sustainable and resilient localities where slavery cannot flourish. We are developing transferable, scalable and sustainable initiatives which can help communities to become slavery-free.

This includes national comparative research on multi-agency anti-slavery partnerships, research to understand the contribution of faith groups to anti-slavery action, work alongside statutory and community partners towards creating a slavery-free Nottinghamshire, and an expansion of our place-based approach to address slavery in a number of other cities around the world.

For example, we have built a resilience framework that supports our place-based approach to addressing slavery. We have theorised the social determinants of slavery-free communities, setting them in context with a systemic view of the anti-slavery agenda, that stretches from prevention through discovery to respite, recovery and sustainable resilience. By understanding the factors contributing to slavery-free communities, we can measure and compare resilience across a wide range of local settings, and so challenge and inspire communities to further action.

Pictured left: Local volunteers work with the Rights Lab to assess data and model slavery vulnerability in the city of Dar es Salaam, Tanzania.

We can create blueprints for antislavery law and policy enactment, reform and implementation around the world



Law and Policy Programme

How can we close the implementation gap—the gap between principle and practice in anti-slavery governance?

From the global to the domestic, States are increasingly engaging with the issue of modern slavery in their legal frameworks. Yet significant gaps remain in anti-slavery laws and national approaches often fail to satisfy international commitments. Disparities between States' legal frameworks create confusion, prevent effective cooperation, and result in incomplete coverage of the phenomenon. The intersectional nature of modern slavery presents a further challenge for anti-slavery governance, requiring engagement with a variety of different policy domains.

In our Law and Policy Programme, legal scholars, political scientists, sociologists, and scholars of business and area studies are interrogating the law and policy frameworks that operate at the global, regional, and domestic level. They are working to determine the elements of effective anti-slavery governance and to map trends, successes, and failures in its realisation and implementation. This includes work defining the parameters of slavery and related forms of exploitation, investigating the full range of potential mechanisms for modern slavery governance, and engaging victim-centred approaches.

Our Law and Policy Programme adopts an intersectional approach to address the complexities of modern slavery, exploring the intersecting factors that drive modern slavery and how different areas of law and policy can be leveraged in response. This includes consideration of key thematic issues such as gender, migration, conflict, and instability, as well as a wide range of policy domains—from human and labour rights to immigration, family law, public procurement, and trade.

For example, we have launched the world's first comprehensive database of the domestic legislation and international obligations of all 193 UN Member States with regard to slavery and related forms of exploitation. From this Anti-slavery Legislation Database, we can construct blueprints for anti-slavery law and policy enactment, reform, and implementation around the world, working with government, legislators, and practitioners to lay the legal foundations for a future free from slavery. The database allows States to learn from global practice and comparative analyses in order to develop robust governance frameworks that respond to the changing dynamics of slavery.

Pictured left: Members of the Rights Lab team in conversation with parliamentarians from Malawi and Namibia about anti-slavery legislation.

We are helping businesses to understand the risks of slavery in their global supply chains



Business and Economies Programme

What are the impacts of slavery on our economies and how can businesses tackle slavery?

We know that slavery exerts a disproportionate drag on economies, inhibiting social and economic development for free people as well as the enslaved. The UK Government's own analysis calculates the economic cost of modern slavery in the UK at between £3.3 and £4.3 billion. We argue that ending slavery would mean a better economic situation for everyone.

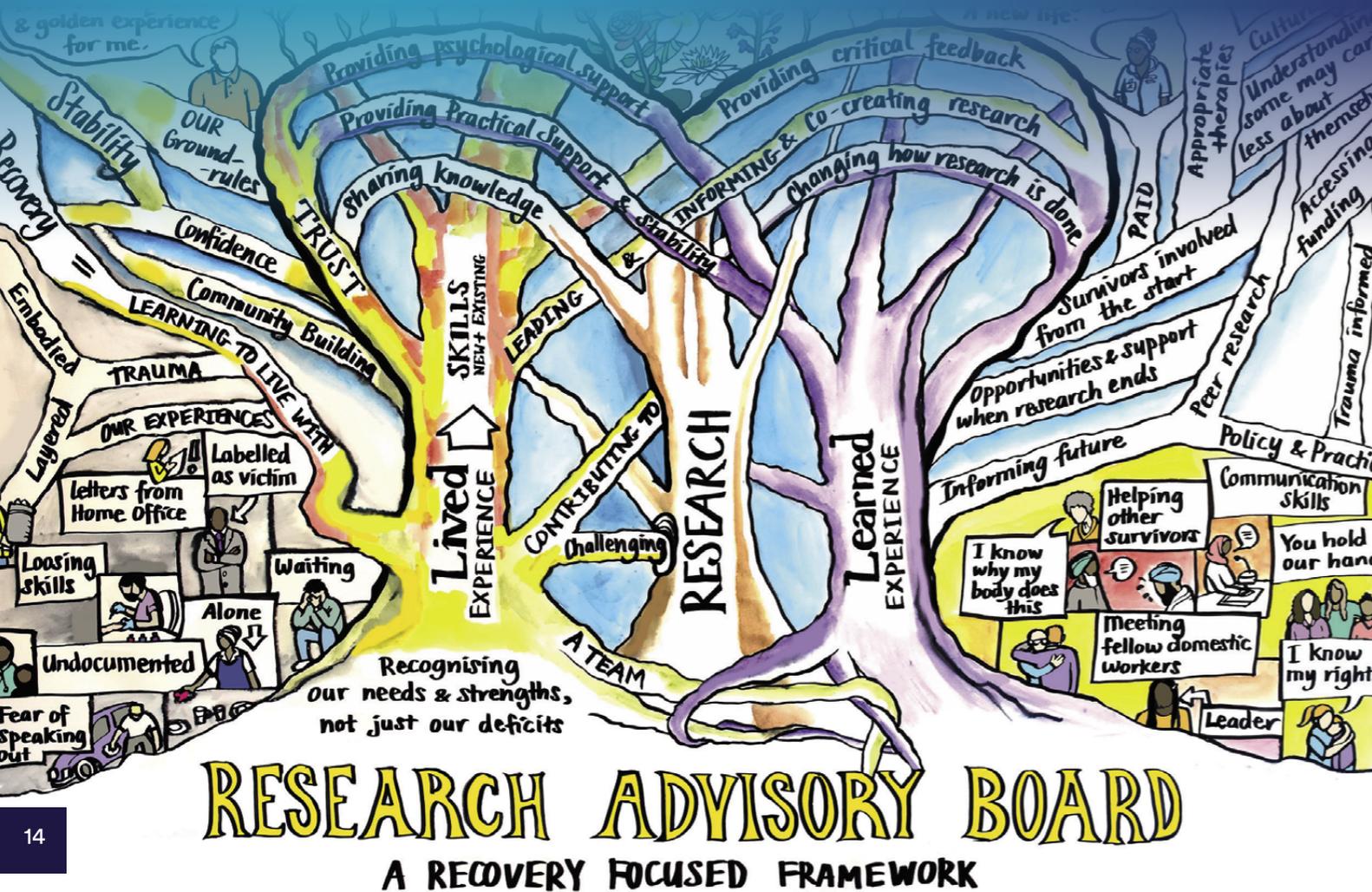
In our Business and Economies Programme, business scholars, economists, sociologists, political scientists, and computer scientists are measuring demand and supply for slave labour, demonstrating slavery's impact on a country's economy and economic benefits of ending slavery. Our analyses are revealing the economic value of slavery-free production and making the business, as well as the ethical, case for slavery-free supply chains.

This includes extensive work on slavery in supply chains. We work with partners to change supply chain design in response to findings—from international businesses to local government procurement. Some of our experts also focus on key high-risk sectors for labour exploitation, including social care, car washes, agriculture and construction.

For example, we have built on sector-specific work to create a slavery Risk Barometer. By incorporating modern slavery risk into the decision-making of global supply chains and investors, we can enable stakeholders to measure their exposure to slavery, measure progress, and build a commercial case for modern slavery prevention. The Barometer helps us understand at which point in the supply chain modern slavery is likely to occur, and so enables businesses to understand the impact of their decisions and allocate resources towards improvement.

Pictured left: Enslaved person harvesting cotton, a high slavery prevalence commodity. Courtesy of Trafficking in Persons Office, US Department of State.

Our research is underpinned by a social-ecological approach and identifies the wider contextual factors that influence survivor health and wellbeing.



Health and Wellbeing Programme

What is safe and effective support for survivors of modern slavery?

People who have lived in modern slavery have often experienced extreme physical, emotional and psychological abuse. This can lead to a range of complex physical and mental health challenges. Survivor support is a central tenet of local, national and international policy. Yet, the research evidence on which support provision is based often lacks survivor involvement and an understanding of what works and for whom.

In our Health and Wellbeing programme, we combine learned experience (experts from health, public health, social sciences, medical anthropologists and political scientists) and lived experience (people who have experienced modern slavery). Our research is underpinned by a social-ecological approach and identifies the wider contextual factors that influence survivor health and wellbeing. This informs the implementation of evidence-based, survivor-informed health policy and support provision.

For example, we are conducting research into modern slavery and public health, midwifery, and mental health, as well as into perpetrator behaviour and online harms. Our focus includes the core components of safe and effective support for survivors, and how can services be maximised to promote survivor health and wellbeing. We explore survivor conceptions of physical and mental health. Rather than taking a deficit approach (focusing on what is wrong with someone) we seek to understand survivors' strengths and assets—and those of their communities—for supporting health and wellbeing. Through this work, we uncover what makes support safe and effective—enabling survivors to thrive after enslavement.

Lived experience is central to our work and we work with a Survivor Research Advisory Board (SRAB). Underpinned by best practice approaches to survivor involvement, the SRAB informs all aspects of our research, including study design, the development of participant resources, data and analysis, and policy and practice recommendations.

Pictured left: A Recovery Focused Framework: Real-time graphic wall chart by Pen Mendonca for Rights Lab project with lived experience experts.

Snapshot of discoveries

Over a third of the world's slavery

is visible from space

Half of all countries

have not yet made it a crime to enslave a human being

90% of the **3,000 conflicts** since World War II have involved slavery

ISIS could not have operated without using slave sales for its financing

High levels of **globalization** and **democracy** are linked to lower levels of slavery

Modern slavery makes a major contribution to **deforestation** and **tree loss** globally

Multiple Systems

Estimation generates a reliable estimate of **slavery numbers in developed countries** and even at city level

Machine learning methods

can show new **predictive factors** and model countries' slavery prevalence where no survey data exists

A social life cycle

assessment based approach using **economic input-output data** can deliver estimates of slavery risk in key industries



Some of our Rights Lab leaders and researchers



Zoe Trodd, Rights Lab Director



Todd Landman, Rights Lab Executive Director



Kevin Bales CMG, Rights Lab Research Director



Doreen Boyd, Rights Lab Associate Director: Data and Measurement Programme



Alison Gardner, Rights Lab Associate Director: Communities and Society Programme



Katarina Schwarz, Rights Lab Associate Director: Law and Policy Programme



Nicola Wright, Rights Lab Associate Director: Health and Wellbeing Programme



Alex Trautrim, Rights Lab Associate Director: Business and Economies Programme



Lois Bosatta, Rights Lab Business Engagement and Impact Lead



Juliana Rinaldi Semione, Rights Lab Survivor Engagement Lead



Laoise Ní Bhriain, Rights Lab Strategic Project Development Lead



Vicky Brotherton, Rights Lab Policy Engagement and Impact Lead



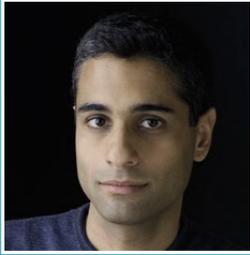
Minh Dang, Rights Lab Research Fellow and Lead in Survivor Wellbeing and Scholarship



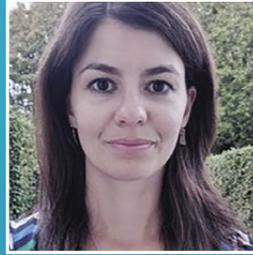
Dame Sara Thornton, Rights Lab Professor of Practice in Modern Slavery Policy



Urmilla Bhoola, Rights Lab Principal Research Fellow in Global Anti-Slavery Justice



Siddharth Kara, Rights Lab Associate Professor of Human Trafficking and Modern Slavery



Oana Burcu, Rights Lab Senior Research Fellow in Global Regulations and Labour Exploitation



Helen McCabe, Rights Lab Assistant Professor in Political Theory



Bethany Jackson, Rights Lab Senior Research Fellow in Modern Slavery and Sustainable Ecosystems



Edgar Rodríguez-Huerta, Rights Lab Research Fellow in Social-Ecological Systems Modelling



Subhan Ullah, Rights Lab Associate Professor in Accounting



Matthew Young, Rights Lab Research Fellow in Survivor Journeys and Support



James Goulding, Rights Lab Assistant Professor in Business Analytics



Andrea Nicholson, Rights Lab Associate Professor in Politics and International Relations



Timothy Masiko, Rights Lab Assistant Professor in Trade and Economic Law



Michelle Stirk, Rights Lab Associate Professor in Accounting



Albert Nyarko-Agyei, Rights Lab Research Fellow in Machine Learning



Ben Brewster, Rights Lab Research Fellow in Modern Slavery Perpetration



Caroline Emberson, Rights Lab Research Fellow in Slavery and Domestic Servitude



Audrey Lumley-Sapanski, Rights Lab Research Fellow and Lead in Migration and Displacement



Lara Bianchi, Rights Lab Assistant Professor in Business and Society



Lauren Eglen, Rights Lab Research Fellow in Gender and Forced Marriage



Lord Vernon Coaker, Rights Lab Principal Research Fellow in Anti-Slavery Policy

Some of our Rights Lab PhD scholars



Amelia Watkins-Smith, Rights Lab Research Fellow in Slavery-Free Communities and ESRC-DTP funded PhD Student in Politics



Rebecca Chloe Brown, Rights Lab Research Fellow in Law and Policy and PhD Student in Politics



Holly Jones, Rights Lab Research Fellow in Communities and Societies and PhD Student in Mental Health and Wellbeing



Mariana Crespi de Valldaura, Rights Lab Research Fellow in Faith and Survivor Care and PhD Student in Sociology and Social Policy



Bobbie Blair, Rights Lab Research Fellow in Ecosystems and PhD Student in Geography



Toluwanimi Jaiyebo, Rights Lab Research Fellow in Communities and PhD Student in Sociology and Social Policy



Martina Carlino, Rights Lab Research Fellow in Labour Exploitation and ESRC-DTP funded PhD student in Business



Robert Marin, Rights Lab Research Fellow in Communities and PhD Student in Sociology and Social Policy



Aline Campos Pereira, Rights Lab Research Fellow in Labour Exploitation and Worker Voice and PhD Student in Law



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If you are interested in exploring a PhD on a topic relating to modern slavery, please do get in touch with us to discuss your ideas.

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Discover more about our world-class research

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[@rightsbeacon](https://twitter.com/rightsbeacon)

Cover image: Mural created by slavery survivors.
Courtesy of Joel Bergner and local partners.

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