

Beyond Rio+20 Resource Centre



For more than 20 years the University of Sussex and the Institute of Development Studies have been working together to address the global challenges of poverty reduction, social justice and environmental sustainability. On our website we have now brought together a selection of our key resources with direct relevance to the two overarching themes and seven critical issues identified by the UN for Rio+20, in the Beyond Rio Resource Centre. The aim of the Resource Centre is to offer information and insight to those interested in new thinking and practical solutions for sustainable futures. This guide highlights the key research in each section and gives access details.



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Beyond Rio Resource Centre

Each section of the Beyond Rio Resource Centre summarises research areas and provides links to key resources. Practitioners, policymakers, academics, students, civil society organisations and others will find resources that are useful and accessible to them. A wide variety of resources are featured, from academic papers to easy-to-read briefings, project reports, websites and films.

For each Rio+20 area we have detailed a number of the world-class experts at Sussex who have published widely on the issues at hand. If you would like to contact the experts, please get

in touch via the links provided on the Resource Centre website or via the people finder on the University of Sussex website www.sussex.ac.uk/profiles

You can access the Resource Centre at www.sussex.ac.uk/climatechange/beyondrio20

Our research heritage and the future

In 2012, two decades after the original Earth Summit in Rio, the United Nations Conference on Sustainable Development, or Rio+20, put sustainable development back at the top of the global political agenda. In 1992 the work of the Global Environmental Change programme at Sussex fed in to the original Earth Summit. Today we have a wealth of research and expertise with vital relevance to the Rio+20 agenda and beyond, building on our heritage of marrying critically-engaged social science with world-class environmental research.

Our work at Sussex has a distinctive and interdisciplinary take on today's most challenging global issues. We are questioning orthodoxies around environment and development, which, as research from across the University is illustrating, are increasingly unable to cope in an era of dynamic and complex social, technological and environmental change.

Challenging assumptions of stability, equilibrium and predictable, controllable risks, and their attendant interventions, is a key thread running

through much of our work, especially in the STEPS Centre. Interventions that advocate the wholesale roll-out of simple blueprints and quick technological fixes – such as 'silver bullet' seeds for farmers in drought-prone areas, or large dam-building programmes to deal with water scarcity brought on by climate change – are not working, and sometimes do more harm than good.

We have a large and growing body of work looking at the alternatives to these fixed and narrow narratives, taking poor peoples' own views, needs and solutions in to account. Our work often focuses on the politics of policy processes, citizen mobilisation and the political economy of regulation, as well as the science, acknowledging the interlinked importance of politics, knowledge, communication and society to democratic and sustainable futures. As well as theory, our work explores practical ways forward – through analytical, policy and appraisal methods aimed at guiding more inclusive and agile responses to the global challenges we face, seeking poverty reduction and social justice, as well as environmental sustainability.

The Sussex Climate Change Network brings together world-leading researchers from the University of Sussex, including the Schools of Global Studies, Engineering & Informatics and Life Sciences, SPRU, the Institute of Development Studies and the ESRC STEPS Centre.

We run a multi-disciplinary programme of research and teaching to improve understanding of how climate change is developing, the impacts on people and the implications for policy and action.

Theme 1: Green economy in the context of sustainable development and poverty eradication

http://www.sussex.ac.uk/climatechange/beyondrio20_green_economy

Is it possible to create a socially just and politically inclusive green economy? Contentious issues about fostering a green economy in the context of sustainable development, poverty eradication and social justice are tackled in this section. Among the issues explored are the new politics and economy of environment and nature, from the process of 'decarbonising' the global economy to the appropriation of land and resources for environmental ends, so called 'green grabs' and 'land grabs'.

Theme 2: Institutional framework for sustainable development

http://www.sussex.ac.uk/climatechange/beyondrio20_institutional_framework

Significant contributions to debates about global governance for sustainable development have come from Sussex, including critiques of the World Environment Organisation and ideas for institutional reform that allow diverse interests and new voices, including those of the poor and marginalised, to be included in agenda-setting. Key texts on the complex relationship between institutional frameworks and environmental and social change also sit here.

Critical issue: **Jobs**

http://www.sussex.ac.uk/climatechange/beyondrio20_jobs

At SPRU, Mariana Mazzucato's research investigates the feedback between the innovative efforts of companies (in both organisational and technological change) and the impact this has on their growth and the structure of the industry in which they compete. Meanwhile Tommaso Ciarli's work on structural change and growth analyses how different aspects of the structure of an economy affect the patterns of growth, and the other way round.

Critical issue: **Energy**

http://www.sussex.ac.uk/climatechange/beyondrio20_energy

Sussex hosts a cutting-edge body of work on low carbon innovation in developing countries – much of which has been conducted in support of the UN Framework Convention on Climate Change negotiations. The Sussex Energy Group, based at SPRU, has been identifying ways of achieving the transition to sustainable, low carbon energy systems while addressing other policy objectives such as energy security. Improving access to

modern energy services within developing countries, sustainable energy systems, the governance of energy finance, carbon markets and the recycling of wasted heat are among other topics being investigated.

Critical issue: **Cities**

http://www.sussex.ac.uk/climatechange/beyondrio20_cities

Cities are centres of growth, dynamism and opportunity but are also vulnerable to pollution, health hazards and environmental disasters and their poorest and most marginalised people lack basic services. Innovative work at Sussex aims to understand the 'glocal' dynamic flows of people, commodities, capital, natural resources, waste and pollution, and conflicts over land tenure and water insecurity. The implications of climate change impacts on migration and the contrasts between 'official' visions of the future and how local people imagine it are areas of work contributing to building sustainable city futures.





Critical issue: **Food**

http://www.sussex.ac.uk/climatechange/beyondrio20_food

The impacts of climate variability on food production and malnutrition, pathways to sustainable livelihoods for poor farmers in uncertain climates, biotechnology and the politics of food security and production are among subjects covered by research on food and agriculture at Sussex. The STEPS Centre's work explores the many competing narratives about agricultural innovation and uncovers potential alternatives to a more sustainable and productive food future. Meanwhile over a decade of research at Sussex on the politics and governance of agricultural biotechnology is located in STEPS's biotechnology archive.

Critical issue: **Water**

http://www.sussex.ac.uk/climatechange/beyondrio20_water

Globally, billions lack access to safe water and sanitation. Despite widespread recognition that the situation is unacceptable, the tragedy of this failure persists. Multi-disciplinary work at Sussex examines the politics and pathways of mainstream water and sanitation policy and practice in the context of climate change in order to develop alternative approaches to sustainable, socially just and equitable water and sanitation practices. Concern over water access can also lead to fears of conflict and Sussex research addresses how to ensure more equitable governance of these situations.

Critical issue: **Oceans**

http://www.sussex.ac.uk/climatechange/beyondrio20_oceans

Studies that look at the ecological and societal impacts of climate change are mostly based on slow and gradually changing scenarios. However, abrupt changes are particularly harmful because they are unexpected, and so beyond current adaptation measures. One of the well-known triggers of abrupt changes is deep ocean circulation, also called thermohaline circulation (THC). Understanding the keys to future abrupt climate change is critical for both climate scientists and policy makers and research by Yi Wang analyses THC to model possible future abrupt change.

Critical issue: **Disasters**

http://www.sussex.ac.uk/climatechange/beyondrio20_disasters

Disaster risk reduction is one of the greatest challenges for development and poverty reduction. Work at IDS is exploring how the resilience of poor people to climate-related disasters can be strengthened and at what points more profound structural change in economies and politics will be needed. IDS also examines how to best put children at the heart of disaster risk reduction work as part of efforts to adapt to climate change. Researchers at the School of Global Studies have addressed the challenge of utilizing climate model outputs, which often have high uncertainty, in strategic disaster risk management.

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