

Engaging Science and Politics in a Post-2015 Framework

Enduring poverty and social inequality, in the face of rapid environmental change, have focused unprecedented attention on how social justice and environmental challenges are interlinked, from local to global levels. The post-2015 framework must address these challenges together, drawing on the natural and social sciences, and creating opportunities for inclusive, democratic debate around appropriate pathways to sustainability. Technical and social innovations have essential roles to play, but a new politics of innovation is also required. The concepts of social and planetary boundaries, integrated with a '3D agenda' of direction, diversity and distribution, provide a framework which can guide such politics. They can inform deliberation and debate about the implications of different social, technological and environmental pathways to sustainability, and strategies to pursue them.

Re-framing current debates

Scientific evidence suggests that environmental change is jeopardising future development opportunities for humanity, necessitating an integrated approach to sustainable development post-2015. As recognised in the post-2015 High Level Panel report, the post-Millennium Development Goals (MDGs) and Sustainable Development Goals (SDGs) processes must align as a matter of urgency to provide an overarching frame for specific considerations around food, water, energy, health, poverty and vulnerability. However, further attention also needs to be given to the roles that science, innovation and democratic political processes will need to play in framing, developing and implementing the post-2015 development framework.

Addressing the interlinked challenges of sustainable development means urgently re-framing key debates across three areas:

- Recognising complexity, uncertainty and dynamics in socio-ecological, political and economic systems – and the need for transformative change towards sustainability.
- Appreciating divergent notions of progress, including how pathways to sustainability are defined, by multiple players in different places.
- Encouraging an open politics of choice around different possible directions of development, the diversity of approaches available for realising goals and the distributional consequences of such choices.

Putting politics centre stage

Earth system science has proposed the idea of planetary boundaries, beyond which future

development is at risk. The boundaries define a 'safe operating space' in which different pathways to sustainability can be experimented with, learned from and strengthened. At the same time, global justice imperatives require us to focus attention on 'social boundaries' above which people's basic needs are met. To understand and support pathways to sustainability that combine environmental integrity with social justice, and are in favour of the poor and marginalised in both the North and South, demands an approach that puts politics at the centre.

Choices between different social, technological and environmental pathways are inevitably political. Transformational change will require political strategies that combine top-down regulation and bottom-up mobilisation, and new alliances across government, business and civil society interests. Through democratic debate, people and social movements across the world need to be able to define and contest their interests, values and desired futures in shaping and implementing sustainable development post-2015.

Global science and local participation

Enhanced links between global science and local participation in decision-making and implementation are required. Alongside technically-informed analysis at the international level, we need approaches that respond to and respect diverse values, contexts, knowledge and expertise in collaboration with formal science.

Whilst evidence on planetary boundaries needs to be drawn upon in guiding the global direction ➤

of development, open political processes are needed to foster a diverse range of technical and social approaches to address not only global challenges but also locally-defined development problems. Uncertainty, ambiguity and dissensus need to be made explicit and diversity should be fostered to respond to varied sustainability priorities, goals and values.

Innovation and the '3D agenda'

The '3D agenda' provides an essential framework for debating and negotiating pathways to sustainability, and the roles of innovation at global and local levels. It can help identify and achieve the transformational shifts in development pathways that are universally required. Core to these

changes are remarkable current and future opportunities for technological and social innovation in areas such as agriculture, energy, water, health, climate change mitigation and resilience-building. A '3D agenda' for innovation to 2015 and beyond needs to highlight not just the rate and scale of innovation, but also place greater emphasis on:

- The **Direction** of innovation – towards defined sustainability objectives.
- The more equitable **Distribution** of the costs, benefits and risks associated with innovation.
- The value of **Diversity** in social, technological and ecological systems and in the kinds of innovation approaches that can contribute to sustainable development.

Policy recommendations

To pay due attention to the politics of sustainable development and the role of science and innovation, the post-2015 agenda should:

1. Be universally applicable (to global North and South), but also nationally and sub-nationally flexible, addressing needs identified through local, democratic processes.
2. Enhance links between global science and local participation in decision-making and implementation.
3. Recognise the role that citizens and different forms of low-tech, high-tech, social and technical innovations can play in creating pathways to sustainability.
4. Move beyond static goals to focus on the longer-term **Direction** of innovation and development towards defined sustainability objectives.
5. Pay attention to the **Distribution** of the costs, benefits and risks associated with different pathways to sustainability.
6. Emphasise **Diversity** in social, technological and ecological systems and in the kinds of innovation approaches that can contribute to sustainable development.
7. Engage with and support the development of a strengthened interdisciplinary, inclusive and politically astute science of sustainable development. One that brings together social and natural scientists from different fields with the expertise of citizens, resource users, policy makers, practitioners and businesses in the co-design and co-production of knowledge to inform and shape pathways to sustainability.



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Institute of Development Studies, Brighton BN1 9RE UK
T +44 (0) 1273 606261 F + 44 (0) 1273 621202 E ids@ids.ac.uk W www.ids.ac.uk
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Further reading

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Credits

This IDS Policy Briefing was written by **Julia Day, Melissa Leach** and **Adrian Ely**, drawing on the work of the ESRC STEPS Centre. It was edited by **Hannah Corbett**.

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