Press Release
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Single-track sustainability 'solutions' threaten people and planet

Fostering grassroots innovations and empowering the creativity of marginalized groups can boost sustainability

The targets, indicators and approaches being used to pursue progress towards sustainable development at Rio+20 are counter-productive, say scientists in a new paper.

Goals focussing on one-track scientific solutions to the most urgent sustainability problems fail to respond to the uncertainty and shifting dynamics of today's world. These one-direction approaches risk breaching the already weakened planetary boundaries which define a safe operating space for humanity, while undoing past progress on global poverty reduction.

Instead, sustainable futures should be plotted on a landscape of multiple possibilities – with their directions confined by planetary boundaries. By allowing diverse types of science and innovation to co-exist, the potential for resilient solutions responding to people's varied social, economic and ecological needs would increase. Distribution - who gains and who loses from particular policies and innovations - is also critical. Fostering grassroots innovations would help to prioritise the interests of the most marginal groups.

Scientists from three renowned sustainability institutes – the STEPS Centre, Stockholm Resilience Centre and Tellus Institute – argue in *Transforming Innovation for Sustainability* that technological solutions appearing optimal from a global perspective rarely prove viable across all localities, condemning many international initiatives to failure. A radical new approach is urgently needed, linking the direction, diversity and distribution of innovation.

"Science, technology and innovation can help avert catastrophic developmental and environmental damage. But only if we move beyond outdated notions of whose innovation counts, to empower the vital contributions of poorer people's own creativity in building green and fair economies and contributing to resilient socio-techno-ecological systems," said *Professor Melissa Leach*, director of the STEPS Centre.

"Until the connection is made between global and grassroots innovation, the chances of steering away from potential earth system thresholds and keeping global societies within a safe operating space is limited," said *Professor Johan Rockström*, executive director of the Stockholm Resilience Centre.

The paper offers principles to guide decision-makers and suggests a new role of 'sustainability broker' to help identify grassroots innovations that respond to climate, food, biodiversity and energy crises and connect them to high-level international efforts.

Notes to editor:
Read Transforming Innovation for Sustainability: http://steps-centre.org/publication/transforming-innovation-for-sustainability/

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The STEPS Centre (Social, Technological and Environmental Pathways to Sustainability) is an interdisciplinary global research and policy engagement centre uniting development studies with science and technology studies. We are developing a new approach to understanding and action on sustainability and development and are funded by the ESRC. www.steps-centre.org

The Stockholm Resilience Centre is an international centre that advances transdisciplinary research for governance of social-ecological systems with a special emphasis on resilience - the ability to deal with change and continue to develop. www.stockholmresilience.su.se