Call for papers

Achieving absolute reductions in material throughput and energy use in society

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Climate change, environmental pollution, exhaustion of raw materials, and ecosystem deterioration are some of the ecological challenges facing humanity. In addition, poverty and inequity are persisting problems, enhanced by population growth; challenging sustainable development. A deep change in the way we produce and consume is necessary; which would include changes in the economic system and in culture and lifestyles.

A critical challenge for humanity is thus to bring society's consumption of materials and energy, and its generation of wastes, to within ecological limits and to do this quickly enough to avoid serious irreversible damage to the planet's life-supporting systems. For most of the natural resources used in modern society this means that the current level of global consumption needs to be reduced, for some resources quite drastically. This special volume asks a deceivingly simple question: How can a reduction in material throughput be achieved — to a one-planet level and within a timeframe that avoids serious harm?

Mainstream discussions among experts and policy makers on how to address humanity's overconsumption of the Earth's resources tend to focus on technical solutions and enhanced efficiency. However, it is becoming increasingly clear that technological advances and efficiency improvements are insufficient for dealing with the challenges we are currently facing. There is growing understanding that overreliance on technological progress and efficiency can further deepen our ecological predication by postponing more fundamental systemic changes and perpetuating a social and economic order that is fundamentally flawed.

The Institute for Global Environmental Strategies, the Global Research Forum for Sustainable Production and Consumption, the World Resources Forum, and the Wuppertal Institute are running an exploratory project on REDUCTIONS — “Reducing Environmental Degradation & Unsustainable Consumption Trends & Impacts On Nature & Society: Research, Policy and Practice”. The project aims to identify, describe and analyze approaches to reduction in material throughput and energy use in production-consumption systems. It further aims to demonstrate reduction possibilities and highlight effective characteristics and implementation mechanisms of reduction policies and practices. With this CfPs, the REDUCTIONS consortium wishes to engage with other researchers who share an interest in exploring approaches to global downscaling of anthropogenic material throughput.

Papers submitted in response to this CfPs will be used for two publication types:
- a Special Volume of the Journal of Cleaner Production
- a policy report and synthesis, identifying key approaches to reductions, current knowledge, and knowledge gaps

The special volume invites contributions that go beyond the dominant discourse on resource scarcity by exploring approaches and pathways to reduced global material throughput. Papers for consideration can be of various kinds: analytical literature reviews, conceptual discussions, analyses of specific initiatives/cases, secondary analyses of existing case studies with demonstrable reductions, and modeling results. Potential topics include, but are not limited to the following:

- Cases where reductions seem to be happening — either on the production side (e.g. through resource capping, lightweight design, or servicing) or on the consumption side (e.g. through sustainable lifestyles, downshifting, mindful consumption, collaborative consumption);
- Political and economic implications of radical reductions concepts, such as “stranded assets” (non-use of environmentally harmful natural resources);
- Substitutability of rare or harmful resources;
- Anticipating and addressing rebound effects and unintended consequences in implementing reductions;
- Approaches to a systemic shift to global dematerialisation — drivers and challenges;
- Options for developing countries to achieve prosperity and wellbeing with lower levels of resource consumption (leapfrogging);
- Socio-economic effects of absolute reductions;
- Defining limits and boundaries of (resource and energy) consumption;

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Measuring absolute reductions; developing and using indicators to monitor progress or lack of it.

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Readings:
Related literature can be found under: dematerialisation, sustainability transition, innovations, degrowth, absolute decoupling, new economics, etc

Tentative schedule for this Special Volume:

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Submissions and inquiries:
Please send extended abstracts by email (or address questions) to: Lewis Akenji (akenji@iges.or.jp)
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