Energy, Ecology and Environment

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A cross-discipline forum for investigating shortages of natural resources, impacts on ecosystems and deterioration of the natural environment

- Emphasizes integrated, discipline-spanning approaches to global natural resource challenges
- Covers energy economics; life cycle assessment; carbon capture, storage and sequestration and much more

Aims and Scope

The rising concern about a potential global energy crisis and its impact on the economy and environment calls for a transition from the current development paradigm to a sustainable one. Such a transition poses a significant challenge for scientists, industries and governments requiring innovative energy and environmental policies to save energy and reduce environmental and social impacts. Management towards a low carbon future needs to be cognizant of the social, cultural and institutional as well as the biophysical and geographical context within which it takes place taking advantage of the synergies provided be ecosystem services and technological regimes developing nature-inspired production and consumption systems. There is already plenty of literature on these problems, along with an abundance of journals with disciplinary territories and sharp boundaries on the intellectual landscape. However, we need a problem-oriented forum, transcending disciplinary boundaries, for putting the pieces together promoting informed discussions of an integrated vision of a sustainable human and natural world.

Energy, Ecology & Environment (E3) is a cross-discipline forum for investigating the energy production and its impacts on ecosystems and environment, clean energy production, sustainable management of global natural resources, sustainable industrial and agricultural production and emission reduction technologies. Preference is given to papers from theoretical, observational and experimental research having cross and interdisciplinary aspects on following themes at field, landscape, regional or global level.

- Global energy crisis and its impact on economy and environment (e.g. the historical and current pattern of energy use and production; demand and supply; global energy crisis; social, economic and ecological consequences of energy crisis)
- Clean and green sources of energy (e.g. solar, wind, bioenergy, microbial fuels, algal fuels; biomass and biofuel production from marginal and degraded lands)
- Energy economics including life cycle assessment and auditing (e.g. energy pricing, taxation, policy, conservation, regulation, risk management, insurance, fiscal regimes, energy accounting and auditing; life cycle assessment)
- Ecological and environmental impacts of energy production including greenhouse gases emission, pollution and climate change (e.g. impact on atmosphere, hydrosphere, lithosphere and biosphere; greenhouse gases emission, global warming and climate change)
- Emission reduction, carbon captures and storage including soil carbon sequestration (e.g. sustainable strategies for emission reduction; clean development mechanisms; carbon capture and storage technologies; soil carbon sequestration)
- Sustainable management of global natural resources including forest, land, air and water (e.g. sustainable management of forest, air and water resources; land degradation and restoration; waste water treatment technologies; integrated watershed management)
- Sustainable industrial and agricultural production (e.g. cleaner production technologies; product stewardship; life cycle assessment; sustainable agricultural production technologies; biofertilizers and biopesticides; nutrient cycling in agroecosystems; soil fertility management; nanobiotechnology; climate resilient agriculture)
- Sustainable cities and waste management strategies (e.g. the concept of green and smart cities; urban planning; urban transportation; urban zoning; urban biodiversity management; urban hydrology and geochemistry; urban solid waste management; energy production from urban waste)