



ROYAL INSTITUTE
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Energy

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Energy and sustainable development

- Affordable access to essential services underpins development.
- The 'energy-system' harnesses resource, transforms it to energy carriers that are used in appliances and machinery to provide those services. In order to provide services to current and future generations, the 'energy-system' itself needs to be sustainable.
- This 'energy system' may impact and interact with the economy, the environment (including other physical resource or commodity systems) and society. The effects of this impact and interaction should also be sustainably managed.

The energy decision maker is thus concerned with

1. enabling (appropriate, affordable and adequate) service access
2. ensuring the energy-system, that delivers those services, can do so in a sustainable manner and
3. ensure that the broader interactions of that system do not impact other systems so as to compromise the planet's sustained development.

The problem

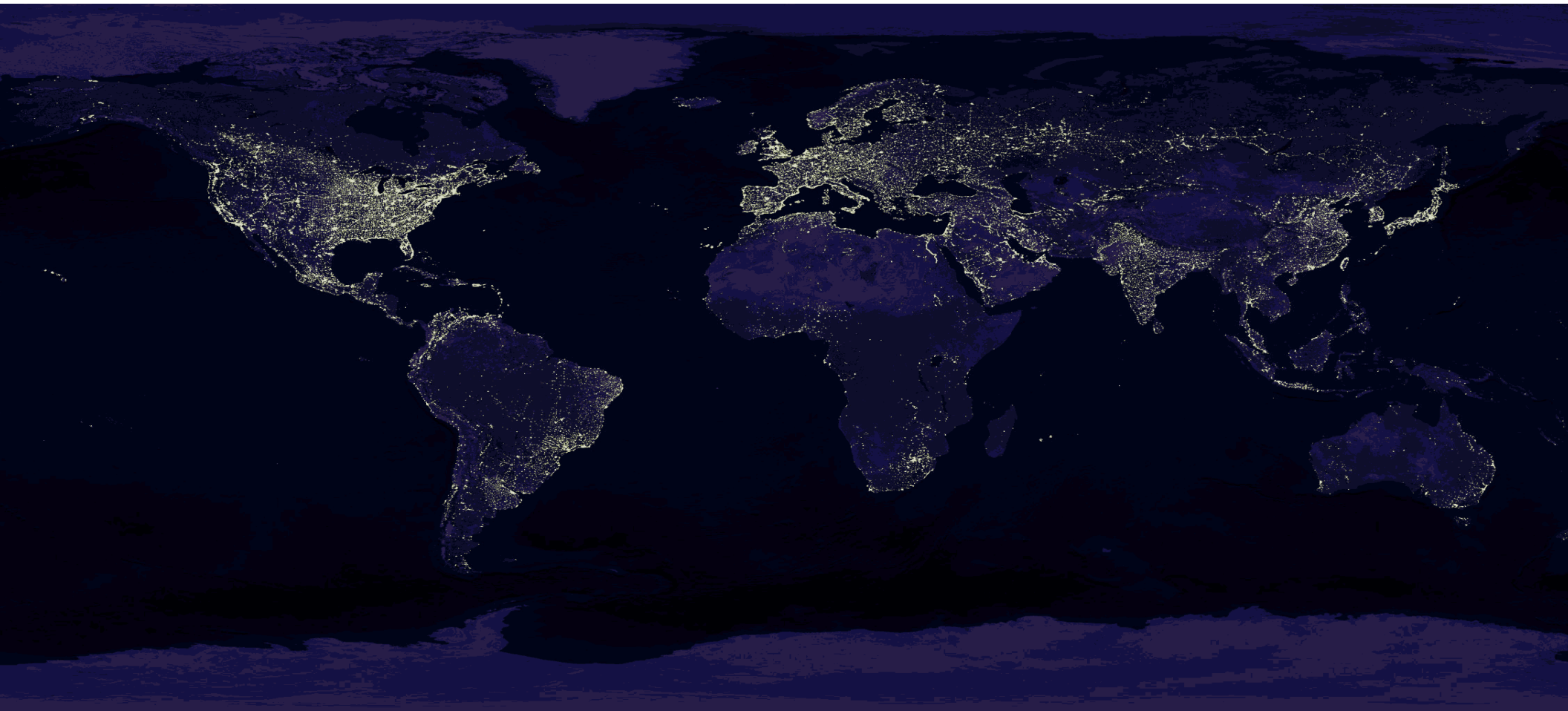
Polarized and politicized views typically dominate the energy debate, at national, regional and global levels.

This has made it increasingly difficult for energy decision-makers to untangle the evidential basis for developing consistent decision making frameworks.

Yet:

- People are locked in poverty.
 - Businesses are constrained.
 - Environmental damage is immense
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Can we find common ground ..?



Over a million people a year die due to emissions from fires to cook and heat...

No regret suggestions

- A. Promote tracking the diagnosis, progress and scenarios of national, regional and global energy systems with a common set of 'strategic' SD indicators.
- B. Promoting platforms for transparent national and international energy assessments (tracking economic development, fuel flows, physical resource use and environmental impacts in a quantitative manner)
- C. Assessing opportunities to increase the economic efficiency of the energy system - especially (but not limited to) where these promote end-use energy efficiency improvements.

No regret suggestions

- D. Developing strategies and a supporting framework to help the poorest countries gain adequate, affordable access to modern energy services (at least to meet the MDGs) and prevent the 2 million (or so) deaths a year attributed to burning solid fuels in poorly ventilated housing.
- E. Undertake transparent evaluations of ecosystem services and their limits, to support discussions on their usage.
- F. Develop methodologies for the integrated analysis of the systemic implications of meeting simultaneously global food, water and energy needs - given that each is essential and each may compete for common ecosystem (and other) services and affect each other.

Feedback

- modest progress is expected in Rio.
- realistic efforts to move negotiations in right direction, whose results might have interesting leverage effects. (Messener 2012).
- helpful in that it was neutral. However, this came with the caveat that it may expose concealed biases (Marchetti 2012).
- There were suggestions that the approach was too academic and that suggestions A and F should be dropped.(Gruebler 2012).
- ecosystem evaluation was important, there was also the thought that ecosystem monetization in suggestion (E) was a risk. (The respondent was not in favor of the commoditization of nature.) (Victor 2012).
- It was suggested that these and related efforts would become more attractive if they were clearly linked to environmental and climate co-benefits.(Gruebler 2012)
- The need for clear targets, for which the suggested steps were important enablers, was also mentioned.