

Global Energy Assessment

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MDGs and Development goals together translate into need for

- Access to modern forms of energy (a prerequisite for reaching MDGs)
- Growing demand for energy services
- Security and reliability of supply
- Deep CO₂ and GHG reductions
- Investment in R&DD and diffusion

Development Needs and Energy Investment Requirements

- Global ODA is just about \$80 bn/yr.
- EU15 ODA budget is about \$40 bn/yr; energy is less than \$1.5 bn/yr (OECD statistics);
- MDGs investment needs in Sub-Saharan Africa are about \$14.3 bn/yr to 2015 (Modi, 2004).
- ACP-Countries energy investments needs are about \$80 bn/yr to 2030.
- LDC energy investment needs are about \$500 bn/yr to 2030.
- World energy investment are about 1000 bn/yr to 2030.

Global Energy Assessment: Towards a more Sustainable Future

- The *magnitude* of the change required is *huge*
- The challenge is to find a way forward that addresses all the issues *simultaneously*
- A paradigm shift is needed: energy end-use efficiency, renewables, and carbon capture and storage.

History and context

- History
 - ◆ US Energy Alternatives to 2010 and Beyond: the CONAES Study (1979)
 - ◆ Energy in a Finite World (1981)
 - ◆ ...
 - ◆ World Energy Assessment (2000)
 - ◆ ...
- Current activities
 - ◆ InterAcademy Council – Transitions to Sustainable Energy
 - ◆ United Nations Sigma Xi – Scientific Expert Group on Climate Change and Sustainable Development
 - ◆ CSD14/15 – Energy for Sustainable Development
 - ◆ ICSU – International Science Panel on Renewable Energy

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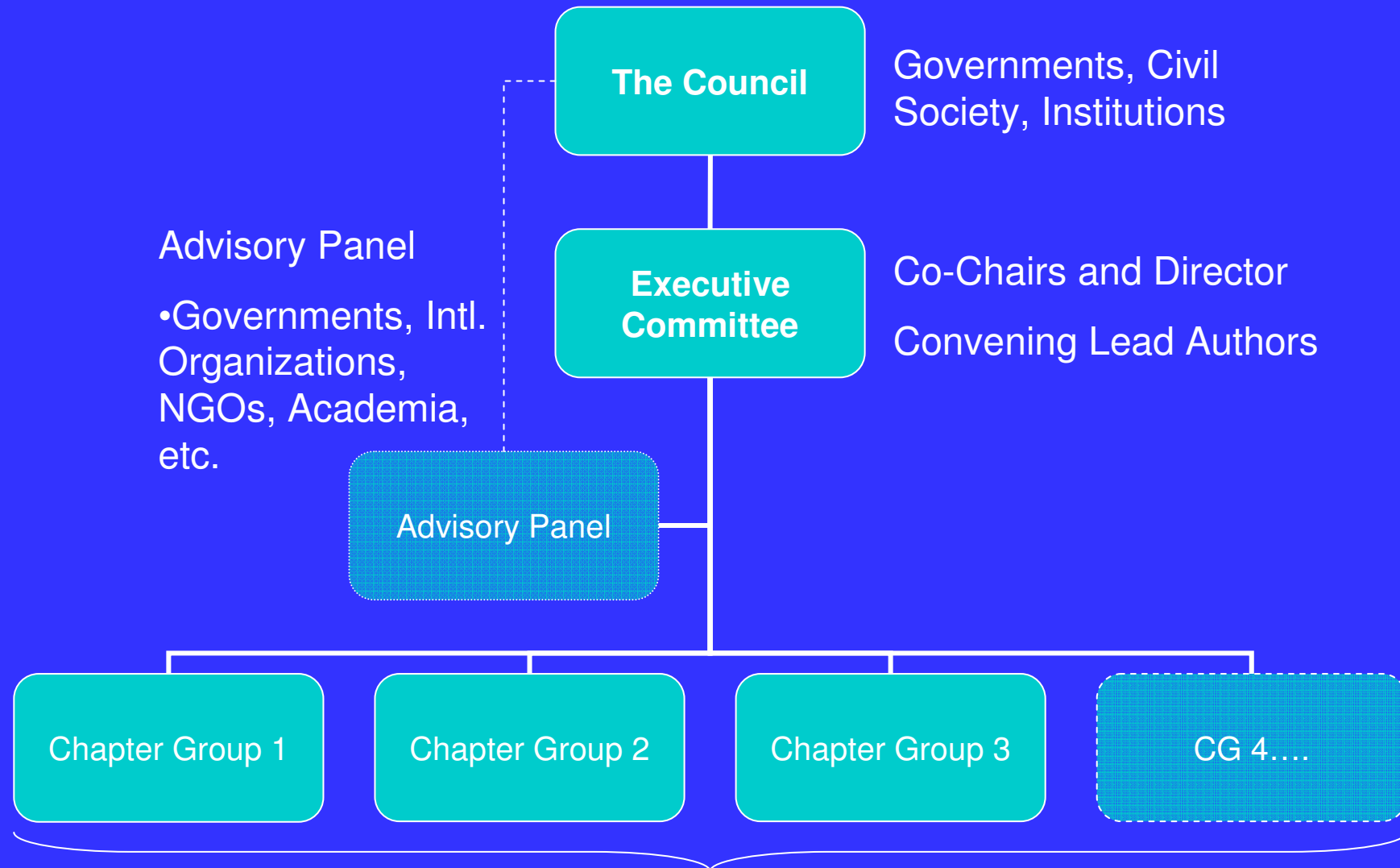
Why a new Assessment now?

- Confluence with ongoing assessments:
 - ◆ Millennium Ecosystems Assessment (MEA)
 - ◆ International Assessment of Agricultural Science and Technology for Development (IAASTD)
 - ◆ Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report
- Address policy needs emerging in the lead-up to the 20th anniversary of the Earth Summit

Need for a new Energy Assessment

- Knowledge on energy and sustainability has improved since WEA
- The world, and challenges to sustainability have changed since the WEA
- Other energy-related assessments (eg. IPCC, MA) have not covered energy in a comprehensive or integrated way
 - ◆ Need for a comprehensive energy assessment to address all issues simultaneously; emerging energy issues
 - ◆ Other assessment will last one to three years

Tentative Organization



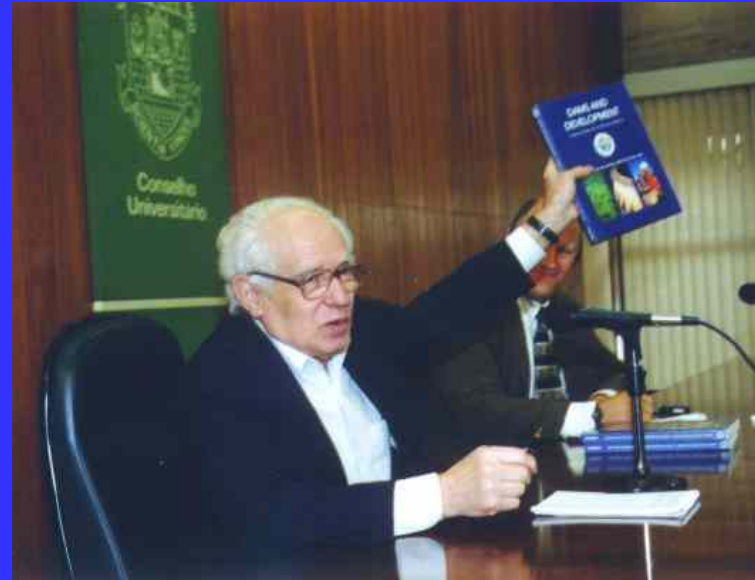
Next steps – Timeline

- Establish institutional umbrella, 2006
- Appoint informal Organizing Committee
 - ◆ First meeting 2006
 - ◆ Assemble the Council, Steering Committee
- GEA launch in early 2007
- Detailed issue analysis and strategy, 2006-08
- Develop and write Assessment, 2007-08
- Regional consultations on Drafts, 2008-09
- Final Report, late 2009



Prof. Thomas Johansson

Nakicenovic



Prof. José Goldemberg

Next steps – Support

- Austria
- Brazil
- Sweden
- UNDP
- UNEP
- WEC
- IIASA



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Confronting the Challenges of Energy for
Sustainable Development:

IIASA

International Institute for Applied Systems Analysis
presents a proposal for a

Global Energy Assessment



energy and the challenge of sustainability

A photograph of a desert landscape under a large, bright red sun. A dirt road with tire tracks leads from the foreground into the distance. Several utility poles with power lines are visible along the road. The ground is a mix of reddish-brown soil and light-colored sand.

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