

# Capacity Building for Sustainable Energy Development at the IAEA

F.L. Toth

Planning and Economic Studies Section

Department of Nuclear Energy

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**IAEA**

International Atomic Energy Agency

# 1. PESS mandate

Capacity building for sustainable energy development (SED):

comprehensive energy system, economic and environmental analyses to assist Member States (MSs) in:

- decision making for SED by considering all aspects and criteria
- assessing the role of nuclear power in SED
- understanding environmental and climate change issues related to energy production and use

Implementation tools and mechanisms:

models, training and technical advice, networks and partnerships, data banks, 3E analyses, global analyses and UN activities

## 2. Energy-economy-environment (3E) analysis

Sustainable energy development: Key component of SD

Multi-agency report on Indicators for SED + MS applications

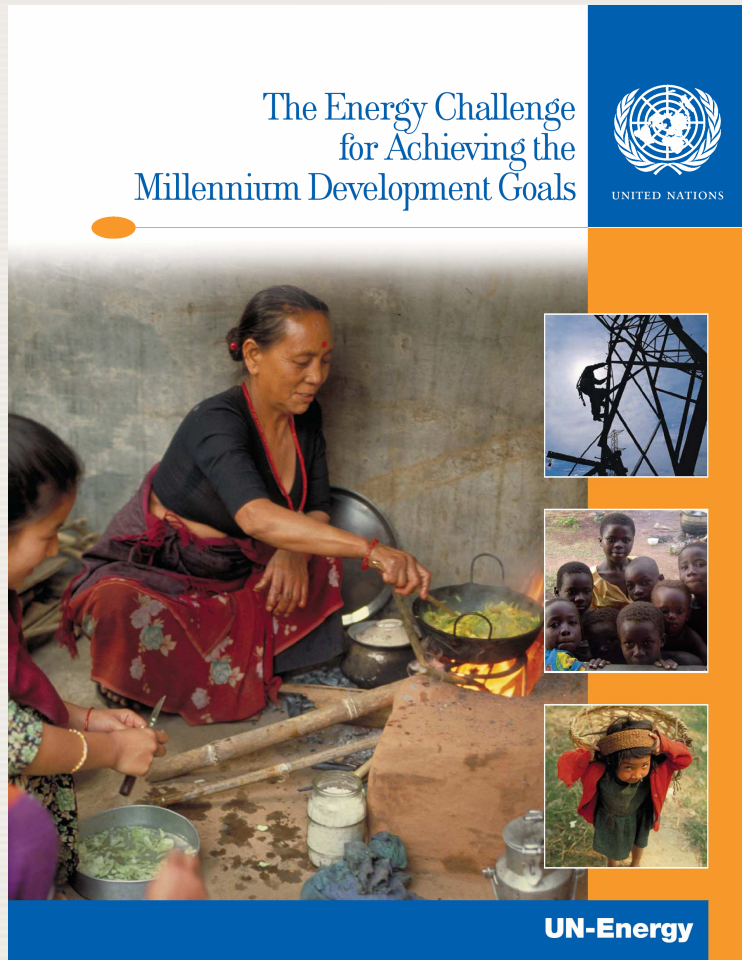
Main criteria of SED – 3 dimensions:

Social: accessibility, affordability, equity, safety

Economic: overall productivity, energy system efficiency, end-use efficiency, reserve and resource availability, supply security, energy system diversity, end-use pricing

Environmental: atmospheric emission ratios (GHGs, ADSs, CxHx), water pollution ratios (power plant heat, oil, mines), solid waste ratios (ash, radioactive waste)

### 3. 3E analysis: Energy and MDGs



Poverty: jobs, industry,  
transport, commerce

Education: electricity

Gender equality: fuel supply

Child mortality: water, indoor

Maternal health: electricity in  
clinics, fuel collection

HIV, malaria: communication,  
health care electricity

Env. Sustainability: pollution

UN Ene: Global partnership to  
support delivery of  
sustainable energy

## 4. Energy planning

### IAEA Energy Planning tools:

- Demand and supply side options
- National vs regional energy planning – C/B of cooperation
- Infrastructure and resource sharing
- Energy trade, interconnections & supply security
- Meeting sustainable development objectives
  - Access to affordable and clean energy services
  - Reliability
  - Full life cycle economics
  - Finance
  - Environmental protection



# IAEA

<http://www.iaea.org/OurWork/ST/NE/Pess/>



*...atoms for peace.*