



International Seminar:  
Energy access and poverty reduction  
achieve the Millennium Development  
Goals in Latin-America and the  
Caribbean

*Santiago de Chile, 20-22 October 2009*

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DEVELOPMENT

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# Global Network On Energy for Sustainable Development

*Energy for the  
Achievement of the  
Millennium Development  
Goals*

Thomas B Johansson





# An action oriented partnership

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## **GNESD: A Type II partnership of the WSSD**

### **GNESD Objective:**

to promote sustainable development and poverty alleviation by expanding the knowledge base about environmentally sound provision of energy services.

### **To achieve this objective the Network promotes:**

- information exchange;
- learning, analysis and study;
- policy support;
- capacity building; and
- advocacy, with a focus on issues of concern to developing countries.



## A Global Network of Centres of excellence

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- Fundación Bariloche (Argentina)
- The University of São Paulo and the Federal University of Rio de Janeiro, (Brazil)
- Energy Research Institute (China)
- Energy and Resources Institute, TERI, (India)
- AFREPREN (Kenya)
- Energy Research Group, American University of Beirut (Lebanon)
- Environmental Development Action in the Third World, (Senegal)
- Energy Research Centre (South Africa)
- Asian Institute of Technology (Thailand)
- Mediterranean Renewable Energy Centre MEDREC (Tunisia)



# Energy and Poverty

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- Close to 50% of the world's population is poor (< US\$ 2.00 per day)
- Bulk of poor people globally rely on traditional biomass, for cooking and heating (estimated global total = 2.4 billion)
- About 1.6 billion of poor people live without access to electricity & clean/modern forms of energy



# Thematic Focus

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- **Energy for the Achievement of the Millennium Development Goals addressed through a series on interlinked studies**
  - **Energy access** - Has power sector reforms expanded access among the poor?
  - role of **RETs for poverty alleviation**
  - **Reaching the MDGs and beyond** - Access to modern forms of energy as a prerequisite
  - Improving access to modern forms of energy in **peri-urban areas**
  - **Energy security** at macro and micro level

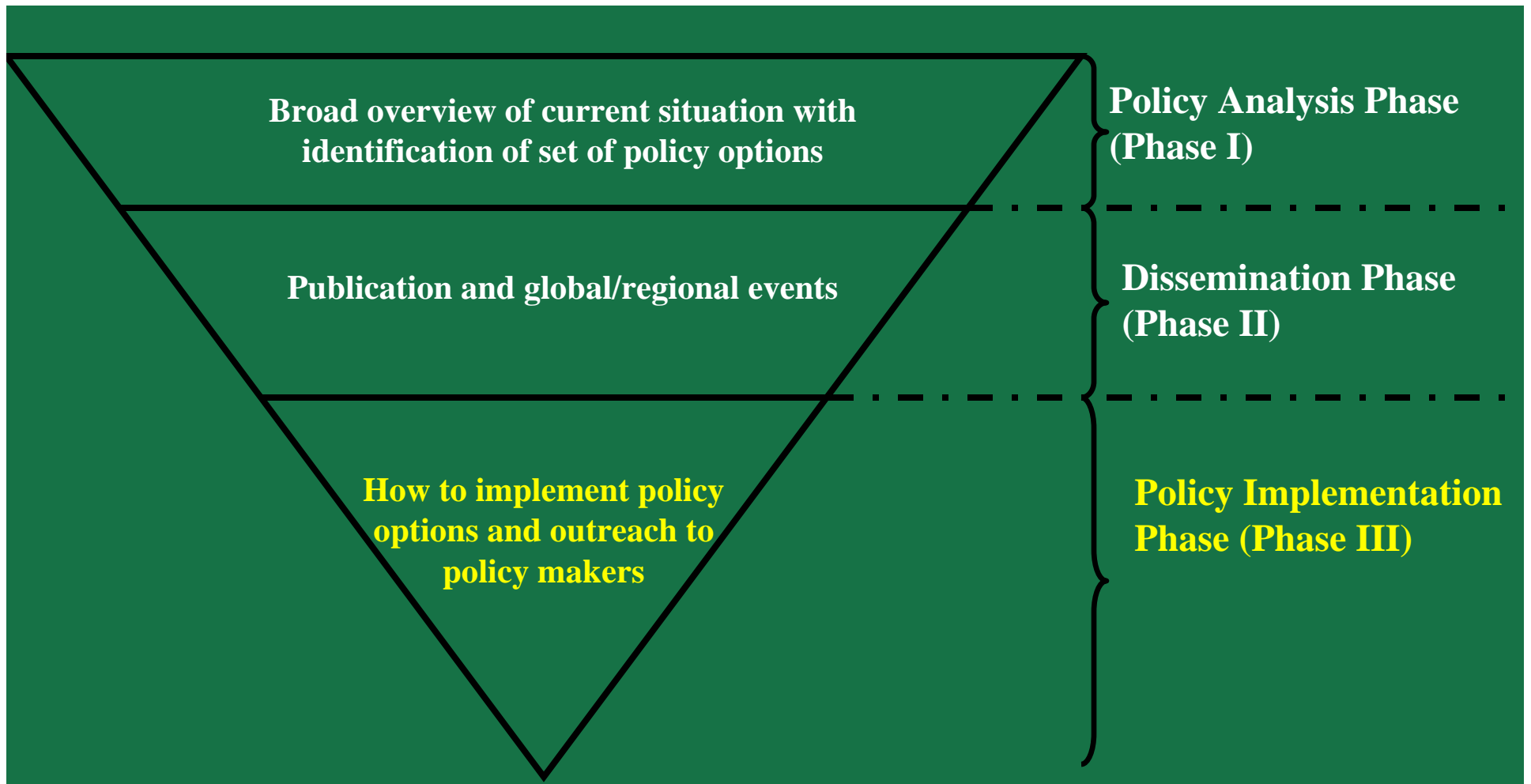


# Studies structured with Progressive Focus

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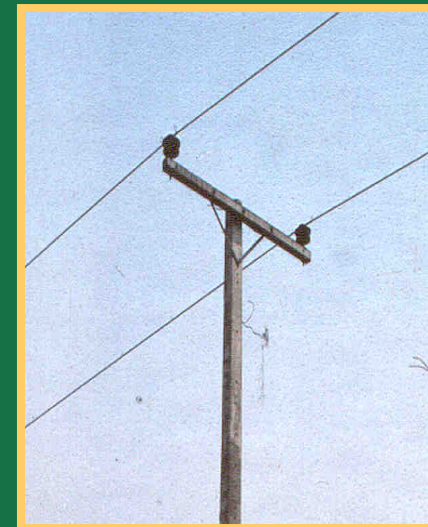
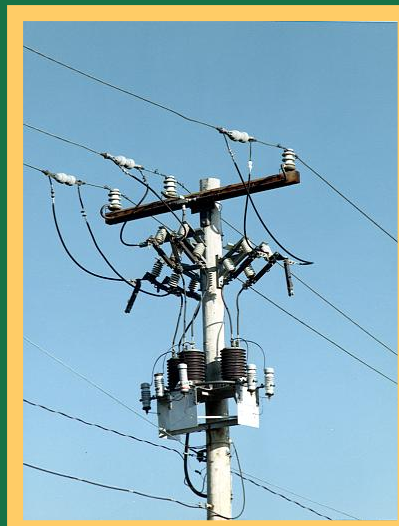
# Has power sector reforms expanded access among the poor?

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- Empirical assessments of the impact of the power sector reforms on access to electricity
- Policy options for improving access to electricity





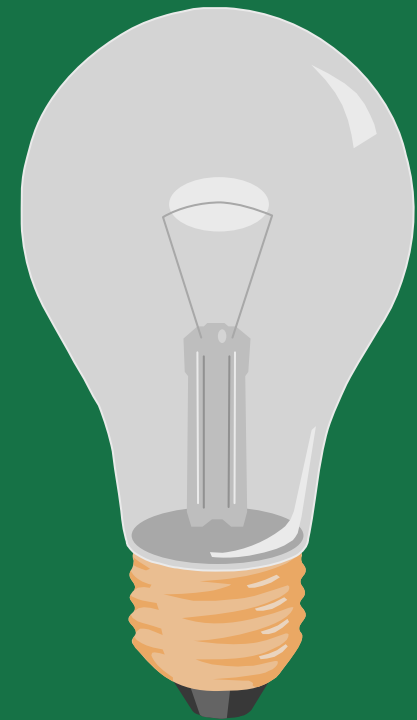
# Findings and Lessons Learned

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- **Insufficient data on electricity use of poor people** - indication of past limited policy interest (used proxies & analysis of primary data)
- **Market-oriented reforms have had neutral or adverse impacts** on poor people's livelihoods, the informal sector, and small businesses
- **Power sector reforms need an explicit pro-poor dimension** otherwise access to electricity for poor people is neglected





# Recommendations

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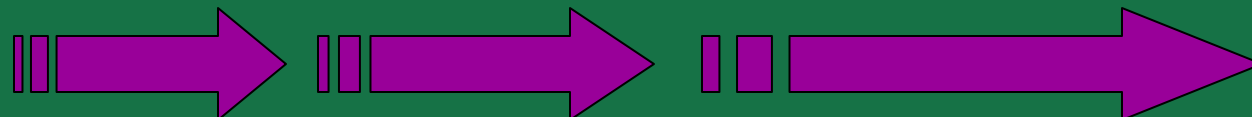
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- Need to **protect (ring-fence)** financing for access to electricity for poor people
- **Sequencing of reforms:** Preferably provide access to poor people first, then privatize utilities (*if at all*)
- If possible, ensure that **poor people are represented** in key decision making bodies

**access to modern forms of energy for poor people**



**Other reforms**





# Role Of RETs In Poverty Alleviation

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- The role of **RETs for poverty alleviation could be very important in all countries** studied, and contrasts with the low level of development and priority assigned to the area. (degree depending on resources, capacities, existing energy infrastructure and population distribution)
- Specific **RE policies should be formulated and implemented** in those countries currently lacking them. RETs should become an integral part of development programs
- Continued **political commitment towards RETs** is an underlying key issue. Need to develop political will, commitment and application of adequate policies and strategies



# RE & Poverty

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- Relevance of **non-electrical technologies for satisfying priority household and productive energy requirements** (cooking, water heating, heating, water pumping)
- **Availability of adequate databases** matching population distribution, energy requirements, income level and energy resources is generally lacking and would be useful for planning
- There is **high potential for local job generation and increased economic activity** through system manufacture and renewable resource extraction and processing





# Recent Priority Study Areas

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- **Urban and Peri Urban access energy to modern forms of energy**
  - examining the options for improving energy services for the esp. the peri urban poor
  - study coordinated by TERI
- **Energy Security and Energy Efficiency**
  - examining the energy security concerns at macro and micro level in different countries
  - analysing the role of energy efficiency in improving energy security
  - Coordinator AIT, Bangkok





# Why focus on urban slums?

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- **Urbanization and rising urban poverty; a key challenge**
  - Large shares of developing countries population reside in slums
  - Greater Buenos Aires (13%)
  - Brazil
  - Mexico
  - .....
- **Migration pressure**
- **Lack of adequate infrastructure**
- **Inequitable distribution of services in urban and peri-urban areas**
- **Appallingly unhygienic conditions of slums**
- **Glaring energy gap; Urban poor suffer the most**



# Conclusions

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- Providing clean energy access to urban poor is not a technical issue
- Need to address the administrative and institutional barriers
- Greater focus on the urban poor in urban development plans and policies
- Greater focus on clean energy as a basic urban service
- Each region to design its set of policy instruments and service delivery models to facilitate this



# Results & Impact

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- GNESD has established a true **south-south partnership and has taken part in and influenced discussions at global events**; GNESD results are quoted in publications from major energy institutions like the World Energy Council, REN21, the International Energy Agency, etc.
- GNESD has helped **moving debate forward on new and insufficiently understood subjects**, e.g. the impacts of power reform on the poorer part of the population. The GNESD findings documented that reforms often have had negative consequences for the poor, however, positive examples showed that if appropriate policies are put in place and sequencing of reforms are considered, results can be positive. When these findings were published they created some controversy that have since become generally accepted.
- Centres provide expert guidance for the distance education **E4SD**



# Impact Examples

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- Contribution to **national policy** documents and approaches
  - Renewable energy law in China
  - Pro-poor rural electrification in Kenya
  - Electricity tariff policy in Lebanon
- Review of tariffs to ensure explicit subsidies for the poor (Lebanon)
- Access work **used by national institutions**
  - Utilities in Argentina
  - Energy Secretariat of Argentina
- Establishment or strengthening of close links with government ministries and other institutions



## Partnering to achieve results

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GNESD has established key partnerships to increase synergies and impacts :



- Input to REN analytical papers
- Regional information & Outreach
- M&E work
- distance education **E4SD**

[www.e4sd.org](http://www.e4sd.org)

**REEEP** – Renewable Energy and Energy Efficiency Partnership

**GVEP** – Global Village Energy Partnership

- review support
- Co-fund RE workshops



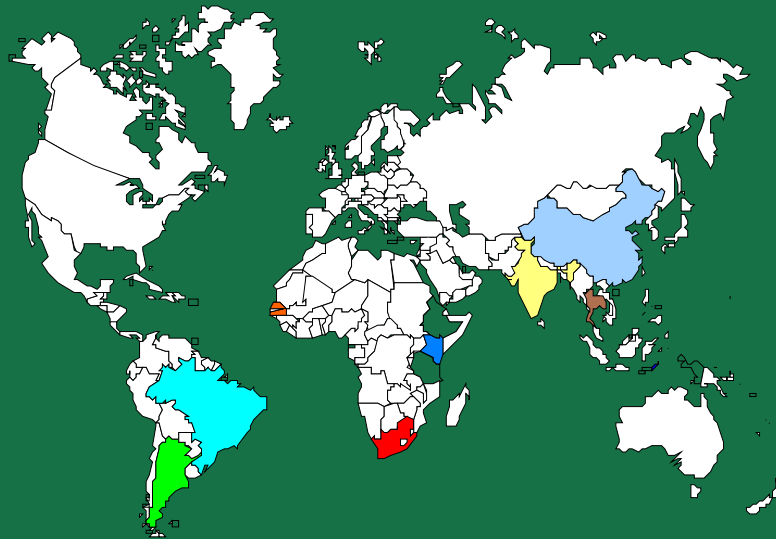


# Thank you!

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## [www.gnesd.org](http://www.gnesd.org)

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