

Energy access for the urban poor: An international perspective



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Outline

- **Key findings of the GNESD study on access to clean energy for urban household applications (watch out for parallels with transport!)**
- **Common lessons emerging for energy and transport services**
- **Example on transport accessibility from India**

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GNESD Study

2006-2008

Global Network on Energy for Sustainable Development-
a UNEP facilitated knowledge network of Centres of
Excellence and Network Partners working on energy,
development and environment issues.

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Introduction

- Ensuring universal access to clean & modern energy sources- Imperative to achieve MDGs
- Increasing energy poverty-failure to address poor as a category with specific energy needs
- Study initiated by GNESD in 2006



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Why the urban poor?

- **Urbanization and rising urban poverty; a key challenge**
- **About one third of the world's urban population in slums**
- **Large shares of developing countries population reside in slums**
- **Lack of adequate infrastructure; rights to access**
- **Inequitable distribution of services**
- **Appallingly unhygienic conditions of slums**
- **Glaring income divides; Urban poor suffer the most- social exclusion; reduced opportunities**

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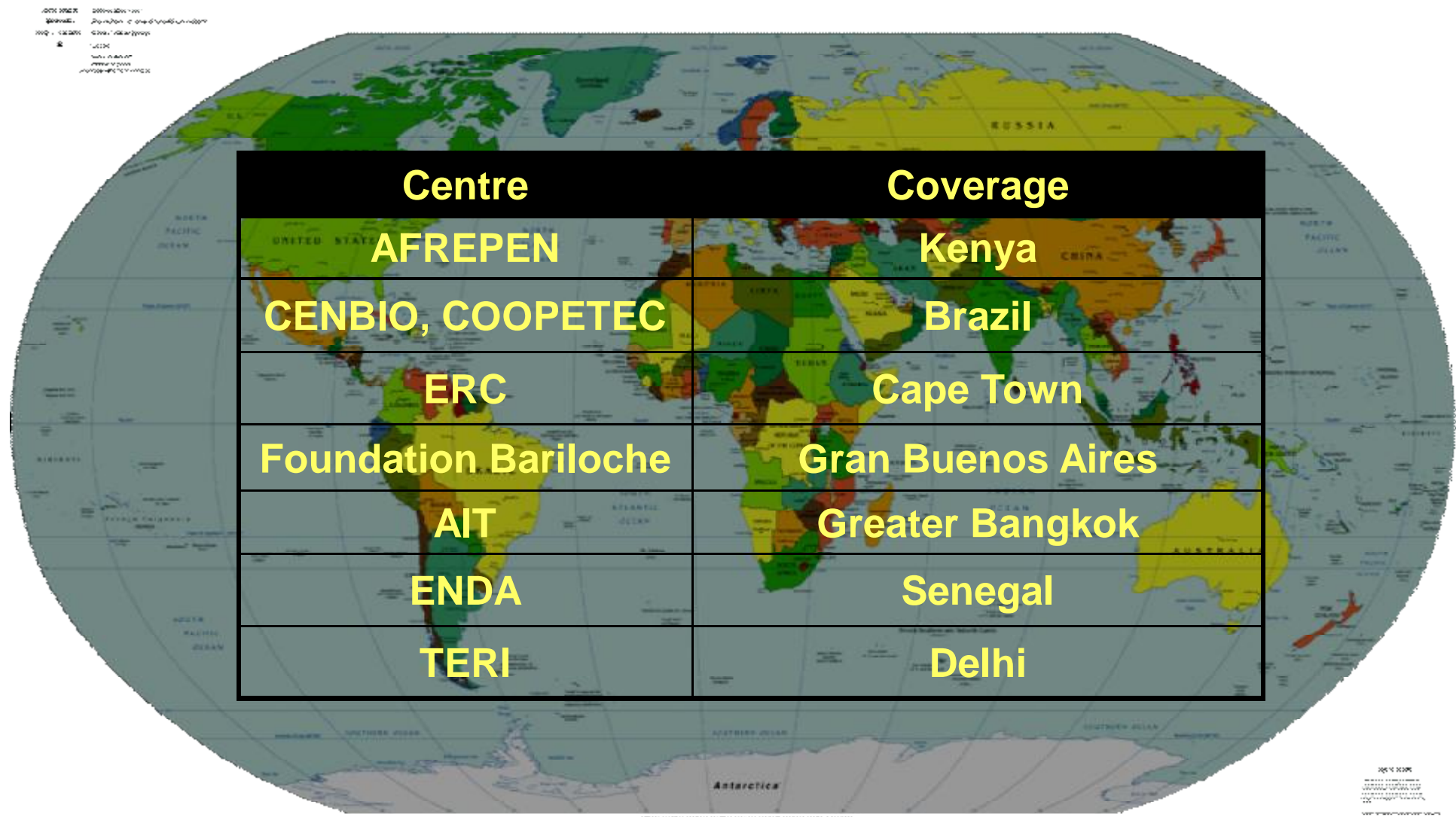
GNESD Study Objective

To identify challenges and policy options in order to facilitate improved, clean and sustainable energy services to the poor residing in urban and peri-urban areas in developing countries from the perspective of poverty alleviation, environmental protection and productive use of energy.

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Reporting Centres

Political Map of the World, April 2006



Centre	Coverage
AFREPEN	Kenya
CENBIO, COOPETEC	Brazil
ERC	Cape Town
Foundation Bariloche	Gran Buenos Aires
AIT	Greater Bangkok
ENDA	Senegal
TERI	Delhi

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Research Framework

Is clean energy available?

Is it accessible?

Is it affordable?

**Is it reliable and safe to
use on a regular basis?**

Is it being used?

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Research Framework (cont'd)

...In addition identify,

- **Common issues**
- **Good practices**
- **Policy responses**

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Key findings

- Urban poor households use a mix of fuels - modern & traditional
- Irregular use- shifts along the 'energy ladder'- need policies to support all
- All countries have overarching policies to encourage penetration and use of clean energy sources; fragmented programs- subsidies, lifeline tariffs, etc.
- No country has yet developed a comprehensive approach to improve access with special focus on poor
- Infrastructure availability better than rural areas; but no stable supply or access
- Administrative, institutional barriers, poor delivery mechanisms

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Specific Issues

1. Who are the urban poor and where are they?

- In SA, informal/illegal settlements do not appear on city maps; get excluded from poverty alleviation programs
- More than 5 types of definitions for peri-urban areas found in Senegal
- In Brazil, national statistics only distinguish between urban and rural populations
- No where is the variation within incomes of slum dwellers considered

Lack of data on urban poor, where they live? what are their energy needs, consumption patterns? Is a barrier to efficient program design.

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Specific Issues (cont'd)

2. Nature of settlement governs access

- Common view that informal settlements are temporary and unacceptable; yet continue expanding
- In Delhi, access to government supplied LPG, electricity and kerosene is impossible without proof of valid address
- In SA, electrification programs only target formal settlements
- Resort to illegal markets; increased cost burden; resort to dirty fuels
- Thailand- quasi identity cards (temporary household registration no.s); de-link access from security of tenure

Poor living in unauthorized settlements automatically get excluded from the formal delivery system even if they may have the income capacity to pay for it.

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Specific Issues (cont'd)

3. Affordability

- High costs of LPG and electricity connections; subsidies on large quantities- unaffordable
- Technologies available most readily to poor are usually least efficient; poor end up paying more for each useful unit of energy obtained than rich
- Frequent dropping down the energy ladder and purchase in small quantities- more expensive! Kenya and India
- Across the board subsidies for LPG, kerosene; not effective
- Senegal has specially sited LPG outlets for the poor; small and subsidized cylinders

High upfront costs, lack of innovative pricing options to address irregular incomes of the poor, and lack of targeted subsidies force poor to resort to dirty fuels.

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Specific Issues (cont'd)

4. Absence of monitoring and control

- No implementation monitoring or feedback systems
- India- corrupt practices of FPS dealers, harassing of consumers, long waiting, asked to come again; all lead to diversion to illegal markets; increase cost burden on poor, illegal benefits to the dealers
- Kenya-sale of half filled cylinders by dealers
- Senegal-Shortage in supply due to the weakness in the warehousing infrastructure
- Corruption and malpractice

In the absence of effective local delivery, government is powerless to implement its policies and provide services.

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Specific Issues (cont'd)

5. Habits, perception, lack of awareness

- Taste preferences; can't give up traditional stove cooking
- LPG perceived to be unsafe
- Not aware of the short and long term ill-effects of using dirty fuels; cook in open streets, assuming pollution to diffuse
- No access/subsidy for clean efficient stoves
- SA suggests a 'one stop shop' offering information and selling appliances and fuels to facilitate immediate household access to households

Users' attitudes can prevent the uptake of modern forms of energy. Changing these requires long term efforts of awareness creation, outreach and capacity building.

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Specific Issues (cont'd)

6. Energy access is not a part of urban development/poverty alleviation programs

- Energy not considered as a basic urban service
- No role of city authorities
- In India, Ministry of Urban Development's mega urban development program for the poor looks only at housing and sanitation not access to energy
- Institutional and organizational disconnect- energy supply, delivery and urban poverty alleviation are looked after by 3 separate ministries in India

Unless access to services and a special focus on urban poor is made part of the urban policy and programs, this aspect will continue to get left out in the future.

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Common lessons emerging for energy and transport services

- **Proper mapping and identification of the target segment- the urban and peri-urban poor**
- **Research/data on their usage trends and needs**
- **Compulsory obligation on part of government to ensure a minimum level of service to the urban poor; regulatory oversight**
- **Urban development plans to ensure access to clean transport**
- **Targeted subsidies**
- **Access is not just a technical issue; also needs removing institutional and organizational barriers**
- **Direct involvement of the city authorities; capacity building**
- **Region specific policy instruments and delivery models**
- **Measurement and monitoring of performance**
- **Building partnerships- users, governments, suppliers, employers**

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Example on transport accessibility from India

- **Assessment conducted by TERI in 5 poor pockets in Bangalore, India**
 - Work and education purposes
 - 3-25 km journey length (one-way)
 - 1 km average bus stop distance
 - 15-30 minutes waiting time
 - Long travel times, mode changes required; increase costs
 - 15-20% of HH income spent on travel
 - Safety and security issues; overcrowding
 - Need for more, frequent buses felt
 - Speculations on upcoming metro; fares 1.3-1.6 times higher than bus with annual escalation of 4%
- **The National Urban Transport Policy (2006)- thrust on promoting mass transit systems in all Indian cities; city size and urban form**
- **Emphasis also on NMT and integrated LU&TP**

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Cont'd..

- **No mention of the poor and ensuring access to them**
- **Current urban investments focus on enhancing public transport infrastructure including purchasing buses in 63 cities; not necessarily will address needs of poor**
- **Two clear segments:**
 - **Captive riders-ensure affordable and comfortable travel; retain shares**
 - **Choice riders- make system attractive to them**
- **Cities till date have no role in planning and managing public transport services; this needs to change**
- **Further research and assessment on travel patterns of and services provided to the poor; making this part of current planning**
- **Demonstration and pilot projects**

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Thank you

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