A photograph showing two women in a peri-urban setting. The woman on the left is wearing a light-colored, patterned sari and is sitting on the ground, holding a large wooden knife. She is looking towards the camera. The woman on the right is wearing a purple and pink patterned sari and is sitting on the ground, smiling. In the center, there is a traditional brick stove with a large metal pot on top. The background is a light blue wall. The text "Urban and peri urban energy access (UPEA)" is overlaid in the upper right quadrant of the image.

Urban and peri urban energy access (UPEA)

Akanksha Chaurey, TERI

Introduction

- Ensuring universal access to clean & modern energy sources
- Imperative to achieve MDGs
- 2.4 billion rely on biomass; 1.6 billion have no access to electricity
- Energy planning and needs assessment for poor- not been adequate
- Study initiated by GNESD in 2006

Why urban poor?

- Urbanization and rising urban poverty; a key challenge
- Large shares of developing countries population reside in slums
 - India (15%)
 - Greater Buenos Aires (13%)
 - Kenya (34%)
- Migration pressure
- Lack of adequate infrastructure
- Inequitable distribution of services in urban services
- Appallingly unhygienic conditions of slums
- Glaring energy gap; Urban poor suffer the most

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Objective

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



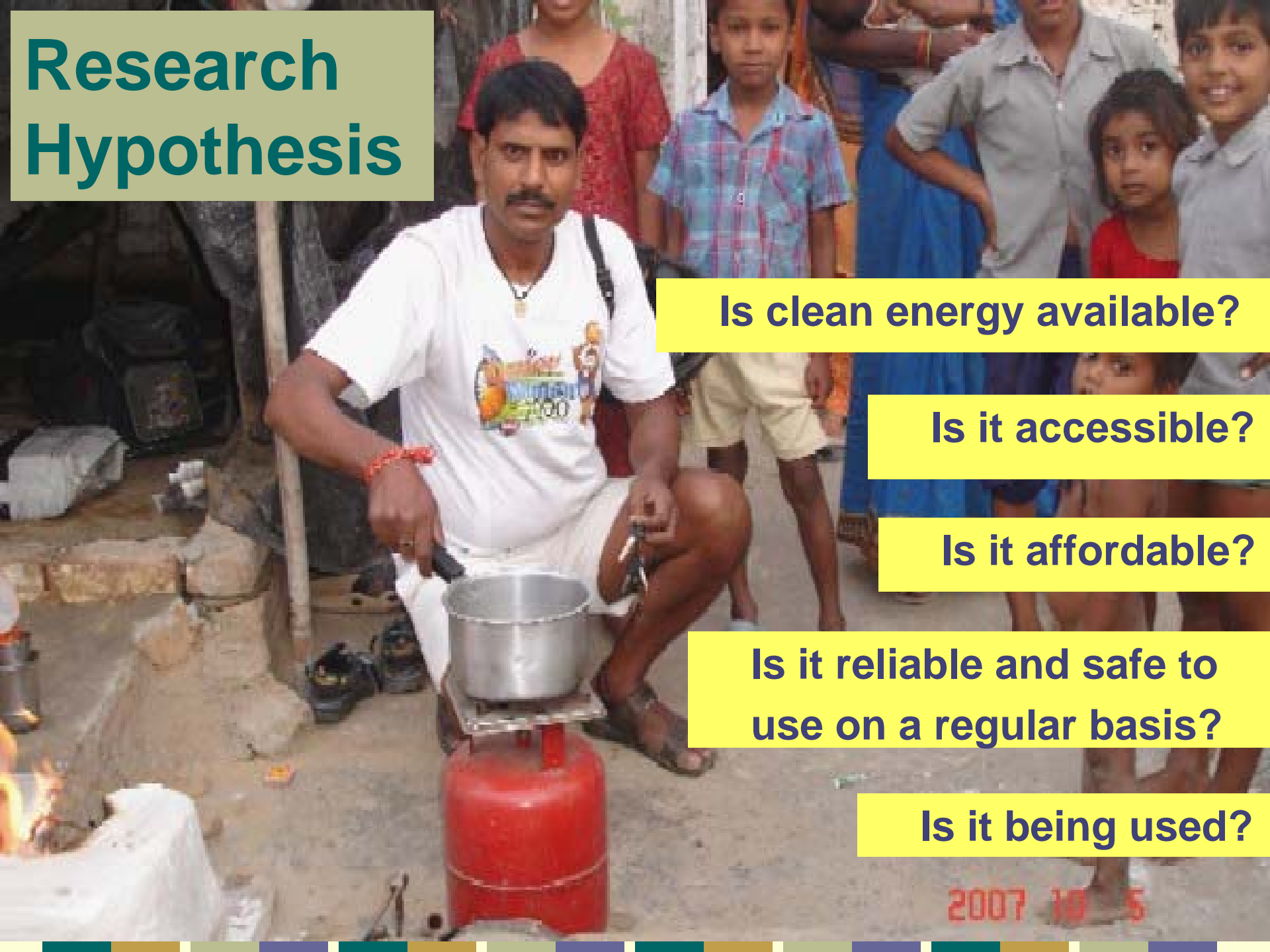
Reporting Centres

Political Map

AUSTRALIA Independence state
BERMUDA Dependency or area of special sovereignty
SRI LANKA Island / island group
★ Capital
Scale 1:100,000,000
Bathymetric
contour depths in % of 10' ft

Centre	Coverage
AFREPREN	Kenya
CENBIO, COOPETEC	Brazil
ERC	South Africa (Cape Town)
Foundation Bariloche	Argentina (Gran Buenos Aires)
AIT	Thailand (Greater Bangkok)
ENDA	Senegal
TERI	India (Delhi)

Research Hypothesis



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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Key findings and recommendations





Generic


- **Mix of modern and traditional fuels used for all applications in all regions (Electricity, LPG, kerosene, biomass)**
 - **Kerosene - base fuel**
- 




1. Lack of strategic planning and long term vision

- **Lack of clear definition and mapping of poverty in urban and peri-urban areas is depriving people of basic rights;**
 - Senegal has more than 5 definitions of urban and peri-urban areas
 - In SA, illegal settlements do not appear on city maps
 - In Brazil, national statistics only distinguish between urban and rural populations
- **Current targets for improving quality of life do not include access to modern energy among basic services.**
 - India- Ministry of Urban Development has not included energy in its mega program for slum improvement and basic service delivery to urban poor

Policy option/instrument

- Identify, map and measure informal settlements as a matter of priority.
 - Develop comprehensive energy policies and ensure that energy forms part of all actions to improve access to basic services.
 - Make energy an integral aspect when planning strategies to attain MDGs.
- 



2. Inaccessibility of clean fuels due to nature of settlement

- Lack of a valid address is a major barrier to access for those living in areas without legal status, even if people have capacity to pay
 - SA- informal settlements not mapped, get neglected in electrification programs. Not eligible for subsidies
 - India- numerous slum colonies hook electricity illegally and have to buy fuels from black market or forego usage due to lack of valid ID, as they live on unrecognized lands

Policy option/instruments


- De-link access to basic services with security of land tenure
 - Issuance of temporary I-cards like 'quasi ID' in Thailand
- 



3. High upfront costs of acquiring connections

- High cost of connections for electricity and LPG plus the cost of appliances is a major hindrance to access;
 - India, Kenya
- Inability to pay electricity bills or purchase refill charges of LPG is a barrier.
- Irregular incomes; resort to biomass, etc. can be purchased in smaller quantities

Policy option/instruments


- Design and introduce ‘consumer-friendly’ ways of spreading connection costs (instalments, etc.). E.g.. GBA-regularization of illegal connections, introduction of pre-paid meters
 - Consider extending subsidies to appliances.
 - Introduce well designed subsidised tariffs for electricity
 - For LPG, ensure that subsidies cover the sizes of cylinders best suited to the poor as well as the ‘standard’ sizes.
 - Make sure that subsidies reach the target group and avoid ‘leakage’ to wealthier groups. E.g. Senegal’s specially sited LPG outlets for poor
- 



4. Lack of formal monitoring mechanisms

- **Lack of monitoring through the delivery of energy services can leave the way open for malpractice**
 - India- corrupt practices of FPS dealers, harassing of consumers
- **Market structures and movements can adversely affect the poor who are vulnerable to such forces.**
 - India- poor forced to resort to black markets for kerosene
 - Kenya- high unit prices for charcoal purchased in smaller quantities
 - Thailand- subsidies only for large LPG cylinders; unaffordable
- **No state level agency responsible; no universal service obligation for provision of clean fuel**

Policy option/instruments


- Establish agencies with the appropriate responsibilities and powers.
 - Ensure that there is a full audit trail on subsidised fuels to avoid their diversion to an informal market.
 - Consider actions to help regulate prices if these are forced up to levels which make energy services unaffordable to the poor.
- 



5. Lack of awareness

- **User attitudes can prevent uptake of modern energy.**
 - Taste preferences
- **People expressed doubts about safety aspects of LPG or have inaccurate information about availability.**
 - India- One room homes, construction material of slums, sitting on floor cooking, presence of children, perceived to add risk
- **However not aware of ill effects of inefficient burning of biomass**

Policy option/instruments

- Suppliers to initiate more rigorous outreach activities and raise awareness on usage of clean fuels, esp. targeted to the poor. E.g. South Africa's proposed 'one-stop shop' information centres
- 

Conclusion

- 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





Thank you

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