

Draft

UN-Habitat Energy Strategy

for

Sustainable Urbanization and Economic Growth

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Energy Efficiency and Renewable Energy

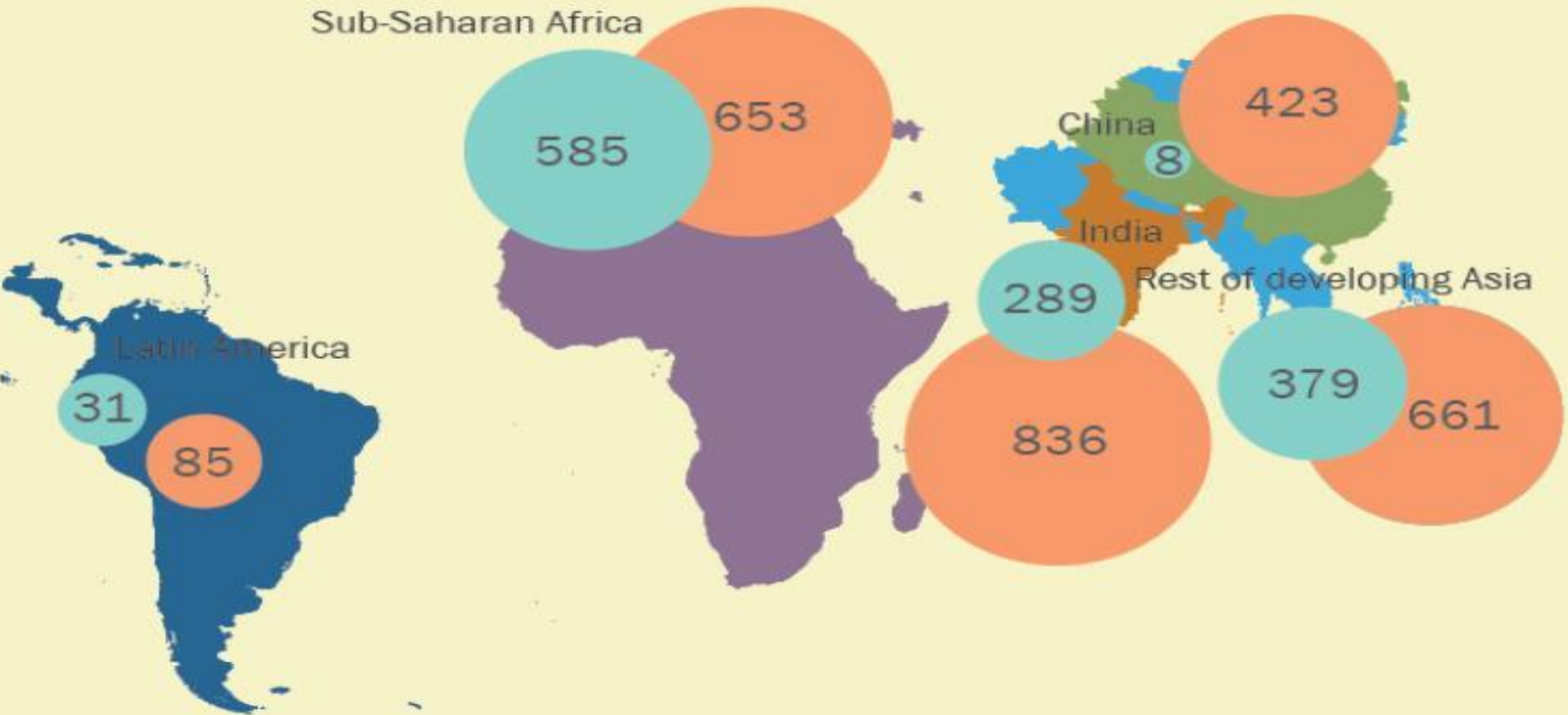
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Urbanization Trends and Urban Energy Poverty

- 10 % of the global population lived in cities in 1900;
- 50% of people lived in cities in 2007;
- 75% of the population will be living in cities in 2050.
- Out of the 3.5 billion people living in cities today, over **one billion live** in informal settlements and are mainly **urban energy poor**.
- On average 60 % of urban population in Sub Sahara Africa live in slums and peri-urban areas:
 - They rely on traditional energy (wood/charcoal) for cooking;
 - They **spend more** for energy services (kerosene and electricity) compare to other urban citizens.
- The **rapid urbanization** is followed by **increasing demand for more energy**, with a growing energy demand of **7%** annually.
- The **increasing cost of energy** is impacting negatively on national economies and the cost of living – **especially the urban poor**.

Access to Electrification and Clean Cooking Facilities

- Million people without electricity
- Million people without clean cooking facilities



Proposed Strategic Priorities for UN-Habitat

- Enhancing access to modern, clean, reliable, affordable and sustainable energy services, especially to the urban poor
- Stimulating energy efficiency in urban areas
- Increasing the use of renewable energy technologies in urban areas
- Financial mobilization and adoption of institutional and policy reforms to ensure promotion of sustainable urban energy development

Options for Enhancing Access to Energy

- Promotion of options/innovations with: **high impact; low-cost** and **scalable**;
- Scaling up slum electrification programmes
- Increasing the use of sustainable cooking systems (efficient stoves, environmentally friendly fuel)
- Ensuring energy services are affordable to the poor
- Making “Sustainable Energy for All” a reality

Options for Stimulating Energy Efficiency

- Encouraging energy efficient building design;
- Promoting energy efficiency standards and labelling
- Phasing out inefficient electrical appliances;
- Replacement of inefficient street lights and traffic lights
- Research and development of non-motorized and/or low energy and/or cleaner transport systems
- Encouraging wider dissemination of energy efficient institutional cookstoves
- Using fiscal and other measures to encourage adoption of energy-efficiency in industries

Options for Increasing Use of RETs in Urban Areas

- Inclusion of renewable energy in cities' energy mix
- Renewable energy technology options:
 - Solar PV
 - Solar water heaters
 - Wind energy
 - Advanced biomass energy (institutional biogas, cogeneration, biofuel, etc)
 - Waste-to-energy
 - Small hydropower

Options for Financial Mobilization and Adoption of Institutional and Policy Reforms

- Increasing budgetary allocations for modern energy;
- Involving the financial sector in the promotion of RETs and EE
- Promote market transformation of RETs and EE.
- Mainstreaming energy efficiency and renewable energy into policies and regulations.
- Developing standards for buildings and roads to ensure energy efficiency and use of renewable energy
- Incorporation of sustainable energy use within municipality operations
- Promotion of urban planning and design solutions conducive to sustainable energy use

Options for Financial Mobilization and Adoption of Institutional and Policy Reforms (cont'd)

- Supporting review and implementation of national and sub-national energy policies and strategies
- Developing programs for reduction and neutralization of GHGs in generation, distribution and use of energy
- Support development of favorable energy pricing mechanisms
- Enabling sustainable energy development to contribute to cities' economic growth



- GENUS was established by UN-Habitat with the financial support of the United Nations Development Account to **encourage** and **support** the design and implementation of **energy-access programmes** and projects for the urban poor worldwide.
- GENUS is a dynamic partnership of institutions to promote collaboration among the public and private sectors, Governmental and NGOs, grassroots groups, national and international development agencies, working in the **urban energy sector**.