



Diplomatic Gas Forum

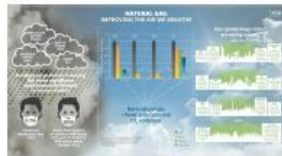
The Vital Role of Natural Gas Towards a Sustainable Energy Future

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President, IGU

Seoul, Korea
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IGU - The Global Voice of Gas

**As the global voice of gas,
IGU seeks to improve the quality of life by advancing gas as a
key contributor to a sustainable energy future**



86 Charter Members
14 Premium Members
61 Associate Members
Founded in 1931

IGU Secretariat
Barcelona, Spain

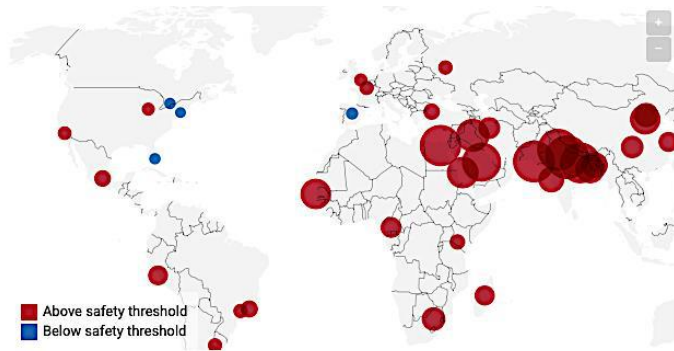
WGC 2021, Daegu, Korea
Korea Presidency 2018-2021

Trends

Poor Air Quality

91% of World Population lives in Areas with Unhealthy Air

PM10 Annual mean concentration (ug/m3) 2014-17

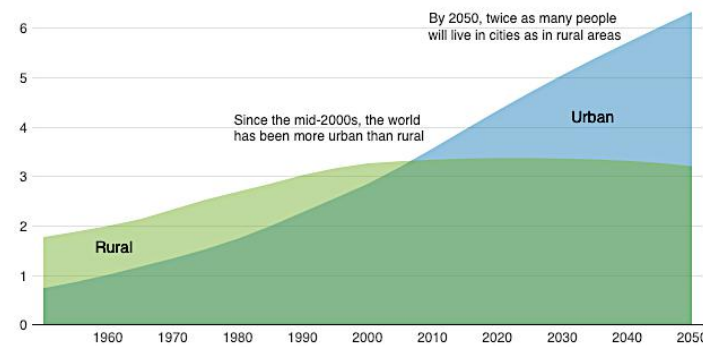


Source: WHO

Urbanisation

Over half of the world's population lived in cities in 2018, up from just a third in 1960.

World Urban and Rural Population billions



Source: UN

1 Billion Without Electricity

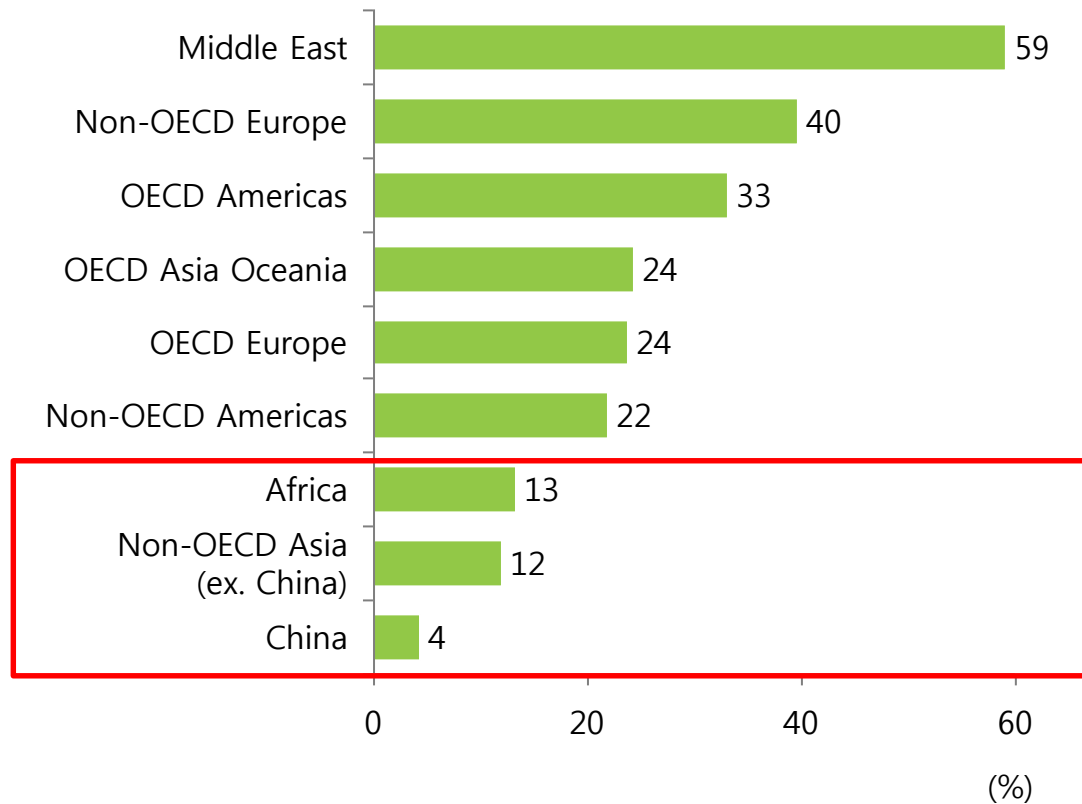
Globally energy access continues to increase, but much more needs to be done to meet UN Sustainable Development Goals.
Annual electricity access growth rate 2010-2016



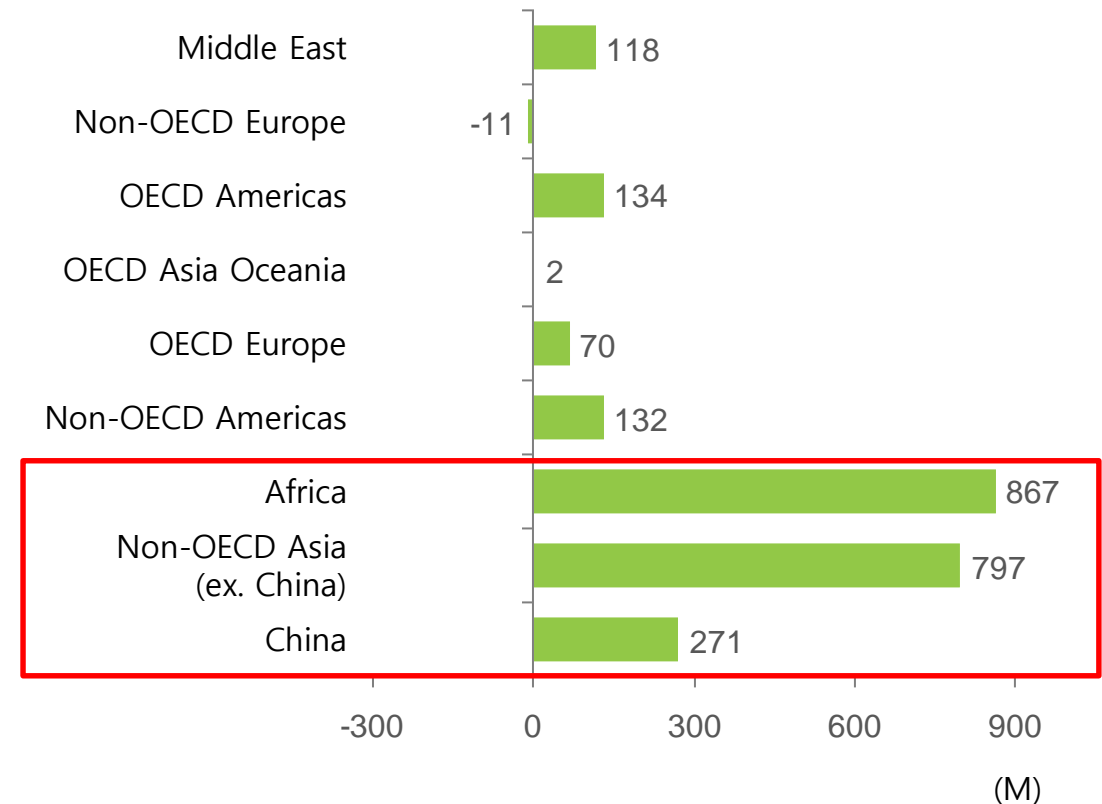
Source: World Bank

Greatest urbanization will occur in regions with lowest gas penetration to day

Gas share of energy consumption¹



Projected urban population growth (2015-50)



¹Includes weighted average of power generation, buildings, and industry sectors; based on 2015 data
Source: IEA, UN Population Division, BCG analysis

Policy plays a critical role for shaping gas market development

Policy is critical to developing gas value chains

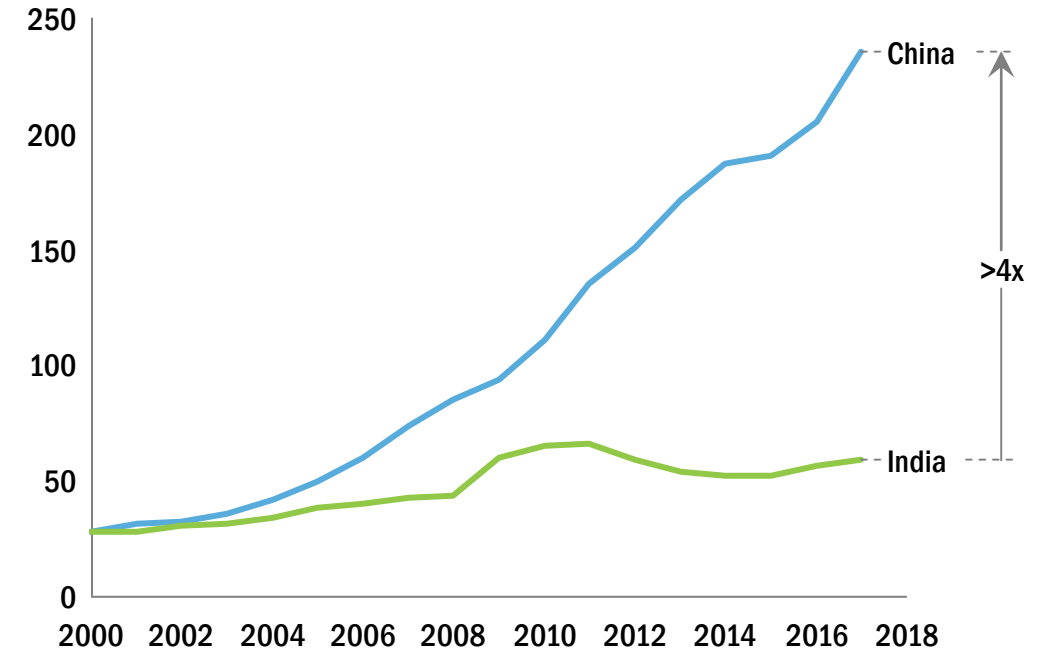


Examples of successful policies

- Production targets
- Priority upstream licensing
- Market-based pricing
- Competitive tariff structures
- Foreign gas trade agreements
- Anchor agreements by public utilities
- Capacity development targets
- Expedited permitting
- Capex support/lending programs
- Pricing of environmental externalities
- Fuel switching requirements/incentives
- Priority sector-based incentives

Example: Divergence between China and India

Gas consumption (bcm)



Industry Priorities

1. Cost competitiveness



1A. Reducing LNG costs through the supply chain



1B. Pricing environmental externalities



1C. Development of local gas production



2. Security of supply



2A. Expanding gas pipeline and storage infrastructure



2B. More flexible LNG contracting



2C. Development of new access-enabling technologies



3. Sustainability



3A. Adoption of local air pollution policies



3B. Development of low carbon technologies for gas



3C. Addressing the methane emissions challenge



Industry action required



Gov. action required



Thank you

