



## Diplomatic Gas Forum

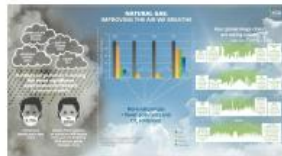
### The Vital Role of Natural Gas Towards a Sustainable Energy Future

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President, IGU

Seoul, Korea  
March 28 2019

# 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

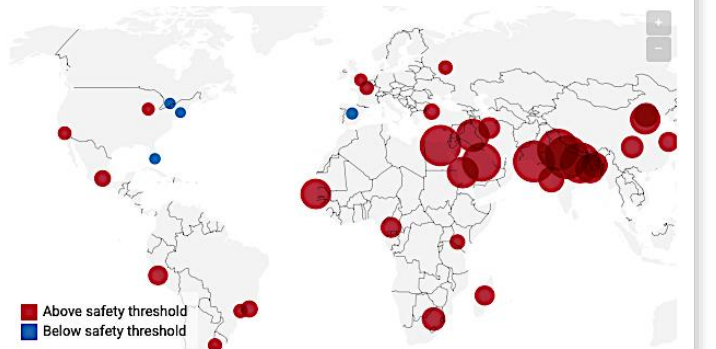
WGC 2021, Daegu, Korea  
Korea Presidency 2018-2021

## Trends

### Poor Air Quality

91% of World Population lives in Areas with Unhealthy Air

PM10 Annual mean concentration (ug/m<sup>3</sup>) 2014-17

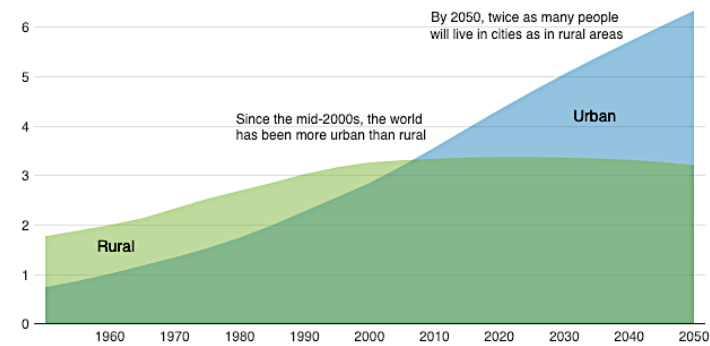


Source: WHO

### 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

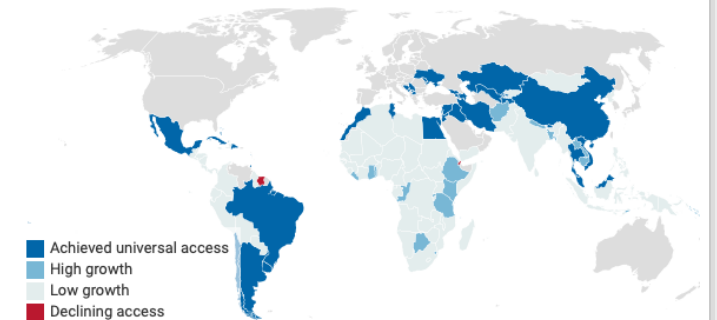


Source: UN

### 1 Billion Without Electricity

Globally energy access continues to increase, but much more needs to be done to meet UN Sustainable Development Goals.

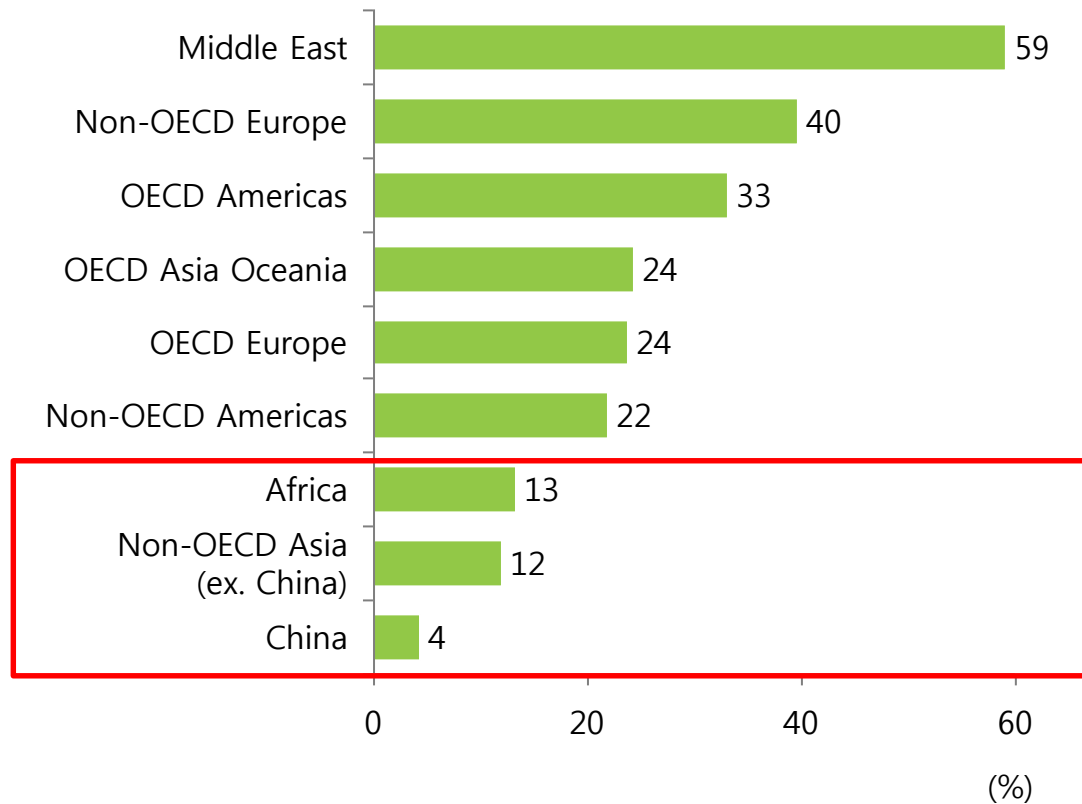
Annual electricity access growth rate 2010-2016



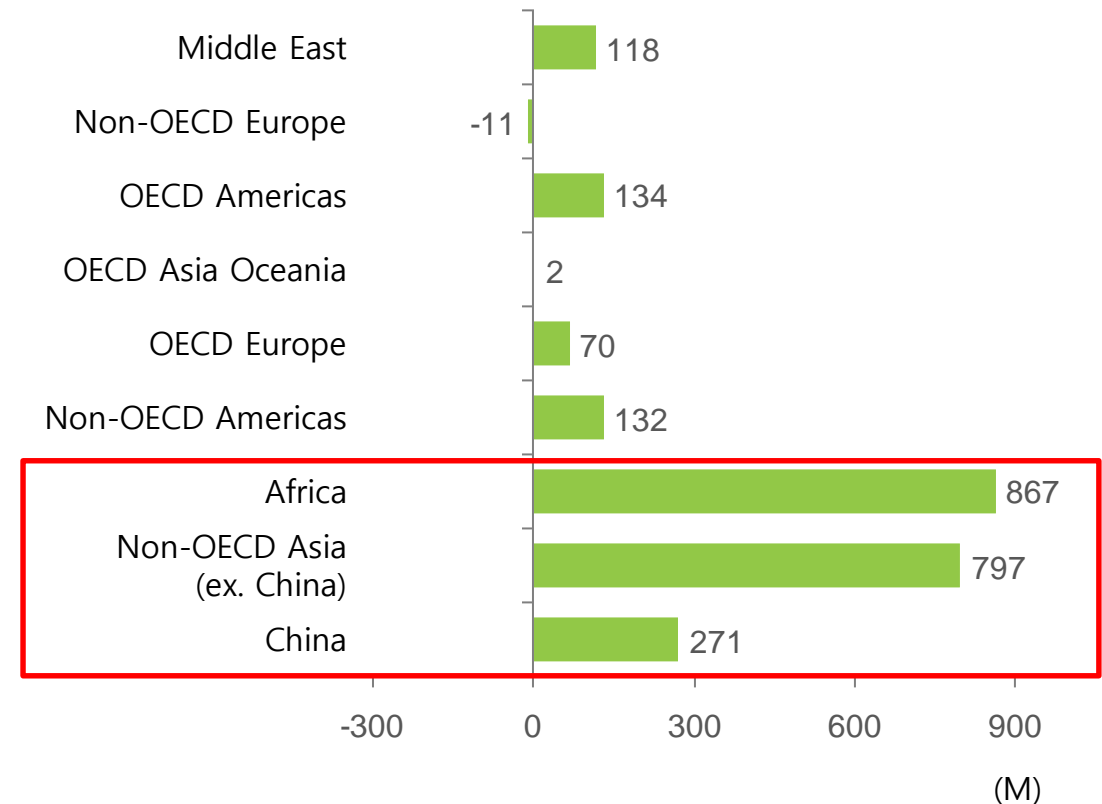
Source: World Bank

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

Gas share of energy consumption<sup>1</sup>



Projected urban population growth (2015-50)



Includes 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

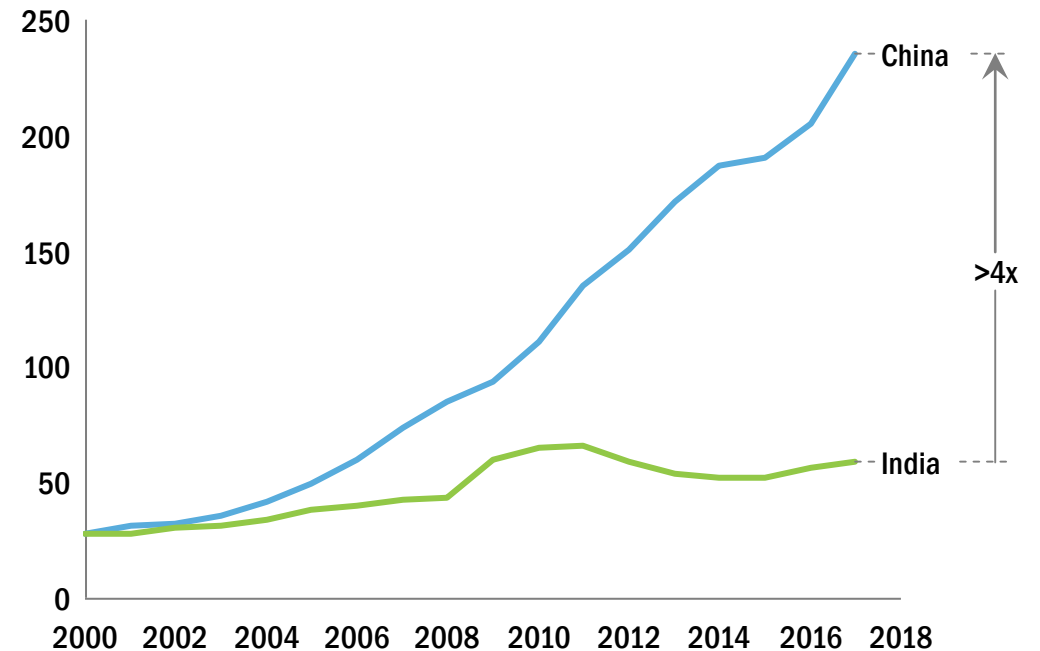


### Examples of successful policies

- 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

