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## The Goal of an Energy-Secure South Asia

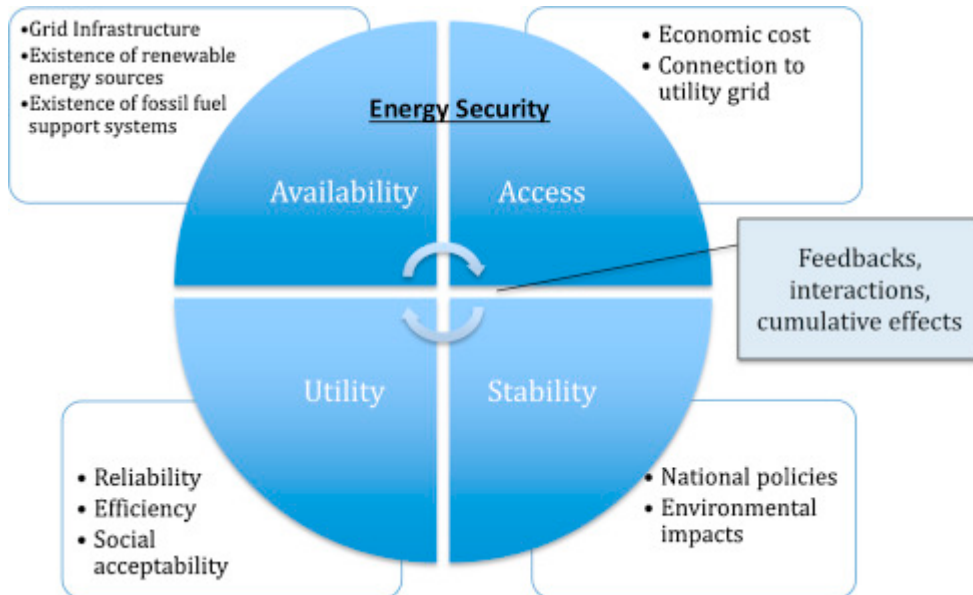
### What is the issue?

While universal coverage can catalyse the South Asia's economic growth, energy trade must be linked to peace building.

### What is the status of energy security in South Asia?

*The IEA defines energy security as the uninterrupted availability of energy sources at an affordable price.*

- South Asia has almost a fourth of the global population and the electricity generation in South Asia has risen exponentially, from 340 terawatt hours (TWh) in 1990 to 1,500 TWh in 2015.
- **Coverage**- Bangladesh has achieved 100% electrification recently while Bhutan, the Maldives, and Sri Lanka accomplished this in 2019.
- India has achieved 94.4% of electrification.
- **Cost**- Bhutan has the cheapest electricity price in South Asia (0.036 dollar per kWh) while India has the highest (0.08 dollar per kWh.)
- **Transition to renewable**- India is trying to make a transition to renewable energy to provide for 40% of total consumption, while Pakistan is still struggling to reduce power shortage.
- **Electricity policies**- The objective of electricity policies of South Asian countries is to supply reliable and quality electricity in an efficient manner, at reasonable rates and to protect consumer interests.
- **Sources**- Geographical differences between these countries call for a different approach depending on resources.
  - India relies heavily on coal (accounting for nearly 55% of its electricity production)
  - Nepal relies hydropower
  - Bangladesh relies on natural gas
  - Sri Lanka leans on oil



## What is the need for electrification?

*A 0.46% increase in energy consumption leads to a 1% increase in GDP per capita.*

- Electrification helps in improving lifestyle
- The generation of power plays an essential role in the economic growth of the country.
- It adds to the aggregate economy by improving the nation's GDP.
- More electricity leads to increased investment and economic activities within and outside the country, which is a more feasible option than foreign direct investment.
  - For example, 50.3% of Bangladesh's GDP comes from industrial and agricultural sectors which cannot function efficiently without electricity.

## What role does energy play in SDG?

- **SDG 1**- Energy sector employs more people that helps in achieving the SDG 1 -no poverty.
- **SDG 3**- People are able to access tech-based health solutions (SDG 3- ensures healthy lives and promote well-being for all at all ages).
- **SDG 4**- Energy access helps online education through affordable Internet (SDG 4- ensures inclusive and equitable quality education and promote lifelong learning opportunities for all).
- **SDG 5** (To achieve gender equality and empower all women and girls)- Solar power-driven electrification in rural Bangladesh engages more than 1,00,000 female solar entrepreneurs aiding in achieving SDG 5.
- **SDG 7**- Sustainable Development Goal 7 is about ensuring access to affordable, reliable, sustainable and modern energy for all by 2030.
- **SDG 9**- Access to electricity improves infrastructure - SDG 9 (to build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation).

## What efforts were taken to promote green energy?

- **India's efforts**- India leads South Asia in adapting to renewable power, with its annual demand for power increasing by 6%.
- India's pledge to move 40% of total energy produced to renewable energy is also a big step.
- Prime Minister Narendra Modi in his 'net zero by 2070' pledge at COP26 in Glasgow asserted

- India's target to increase the capacity of renewable energy from 450GW to 500GW by 2030.
- The first-ever Clean Development Mechanism (CDM) benefits such as poverty reduction, energy efficiency and improved quality of life were realised when there was India-Bhutan hydro trade in 2010.
  - India also hosts the [International Solar Alliance](#).
  - **Bangladesh's scheme**- The rural places that are unreachable with traditional grid-based electricity have 45% of their power needs met through a rooftop solar panel programme.

## Is there any regional energy trade agreements?

- **Bilateral and multilateral energy trade agreements**
  - India-Nepal petroleum pipeline deal
  - India-Bhutan hydroelectric joint venture
  - Myanmar-Bangladesh-India gas pipeline
  - Bangladesh-Bhutan-India-Nepal (BBIN) sub-regional framework for energy cooperation
  - Turkmenistan-Afghanistan-Pakistan-India (TAPI) pipeline
- The South Asian Association for Regional Cooperation (SAARC) prepared the regional energy cooperation framework in 2014.
- **Energy trade**- India exports to Bangladesh, almost 25% of the daily energy demand, with a significant amount from the Kokrajhar power plant in Assam.
- Bhutan exports 70% of its own hydropowered electricity to India while Nepal not only sells its surplus hydroelectricity to India but also exports fossil fuel to India.

## What is the need now?

- Resilient energy frameworks are needed such as
  - Better building-design practices
  - Climate-proof infrastructure
  - A flexible monitoring framework
  - An integrated resource plan that supports renewable energy innovation
- The private sector investment is crucial for energy security in the region.
- Public-private partnership can be a forerunner in meeting the energy transition challenges for the South Asian region.

## References

1. <https://www.thehindu.com/opinion/op-ed/the-goal-of-an-energy-secure-south-asia/article65354570.ece>
2. <https://www.iea.org/topics/energy-security>



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