

Financing SAARC Regional Integration: Power Sector

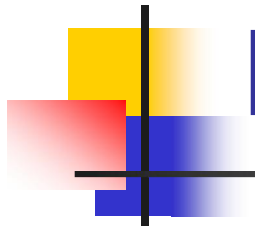
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SAARC Workshop On Harmonizing Regulations and Policies
for Cross Border Power Trade, Risk Sharing and Financial
Settlement Issues

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Kathmandu, Nepal





Presentation Outline

- Energy context in South Asia
- Infrastructure and other support for regional integration
- Strategy 2020 and Energy Policy
- ADB Support
- Final Remarks

Energy context

Pakistan/Afghanistan
- Access to significant hydropower resources but severe power shortages

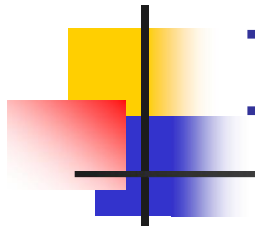
Nepal & Bhutan:
Over 60 GW of economic hydropower potential
Nepal: Severe power shortages, excellent experience in small renewable energy development

India: High demand growth, coal power dominated, coal shortages, power deficits, significant advances in clean power development

Bangladesh: severe power shortages, heavy reliance on natural gas and plans for large coal power development, significant experience in solar home systems

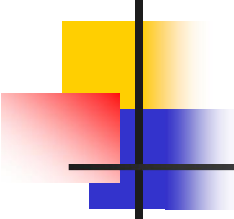
Maldives: heavy reliance on oil, scattered load, large potential for solar

Sri Lanka: Still heavy reliance oil, plans for large coal power development, useful lessons in mini-hydro and wind power development



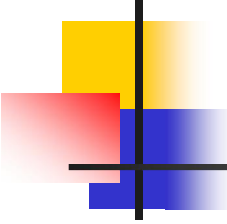
Infrastructure Requirement

- Development of generation sources
 - Hydropower, thermal, other renewable energy sources
- In-country transmission infrastructure
 - Evacuate generation
 - To/from the borders, transmit to local load centers
- Cross-border transmission infrastructure



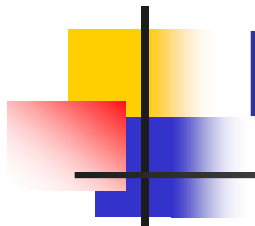
Others to support

- Region-wide optimal planning
 - Generation and transmission
- Harmonized regulatory requirements for cross-border transactions
- Harmonized technical requirements
 - Grid codes and operational procedures
- In-country third party transmission access
- Capacity building in relevant agencies



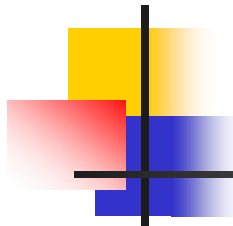
ADB Strategy 2020

- Development Agendas
 - Inclusive growth
 - Environmentally sustainable growth
 - Regional integration
- Drivers for change
 - Private sector development
 - Good governance
 - Gender equity
 - Capacity development
 - Partnerships



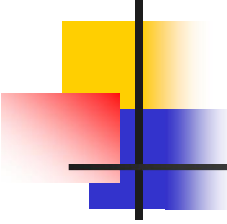
Energy Policy

- Promoting energy efficiency and renewable energy
- Maximizing access to energy
- promoting energy sector reform, capacity building and good governance



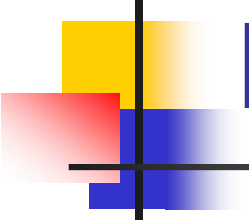
ADB Assistance

- Investing energy infrastructure helping regional trade
 - Implementing SRETS recommendations
- Moving towards a fully interconnected South Asia electricity transmission grid
- Establishing an integrated power market for power exchange
- Capacity development targeting regional cooperation



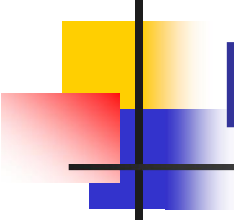
Modes of financing

- Public sector window
 - Investments through the government
 - Technical assistance for soft needs
 - Creating an enabling environment
 - Guarantees for private investments
 - Promoting public-private partnerships
 - Transaction advisory services



Modes of financing.....

- Private sector window
 - Support for private investments
- Funds provided through
 - Country programs
 - Regional cooperation funds
 - Raising co-financing

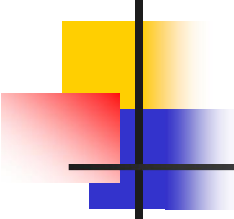


ADB Assisted Regional Projects

- SRETS and SARPES completed
- Bhutan Dagachhu hydropower project
 - PPP
 - 114 MW run-off river power plant
 - Cross-border transmission line
- Bangladesh-India 500MW, 400kV transmission interconnection
 - Provides access to the Indian power market

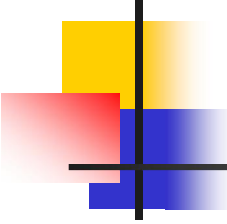
ADB Assisted Regional Projects

- In-country infrastructure to support Nepal-India 1000MW, 400kV transmission interconnection
- Butwal-Mehendranagar 132kV line
 - Upgrading to a double circuit line
- The 210 MW run-of-the-river Nikachhu hydropower (Bhutan)
 - PPP
 - Project preparation ongoing



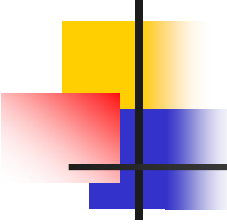
Further ADB support

- Feasibility study on a second India-Nepal cross-border 400kV transmission line
- Feasibility study on a large-scale power plant in Nepal and related transmission strengthening
 - for both domestic use and export
- India-Nepal additional interconnections
 - 2nd Cross border line (Bardaghat– Butwal)
 - Supporting in-country transmission infrastructure
- India-Sri Lanka interconnection
 - Preparatory and investment support



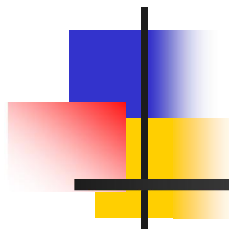
Further ADB Support

- 2nd Bangladesh-India interconnection
- Capacity building and energy sector dialogue
 - South Asia transmission master plan for cross-border trade
 - South Asia Electricity Transmission Utility Forum
 - Sharing experience in cross-border transmission infrastructure
 - Feasibility studies on power trading companies in Bangladesh and Nepal
 - Technical exchanges within and outside the region



Final remarks

- Development partners strongly supports regional integration
- Multilateral agencies
 - bring co-financing
 - provide comfort to private investment
 - act as honest brokers
- ADB works through individual countries, SAARC and SASEC



Thank you

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