

Power Trade in SA Region

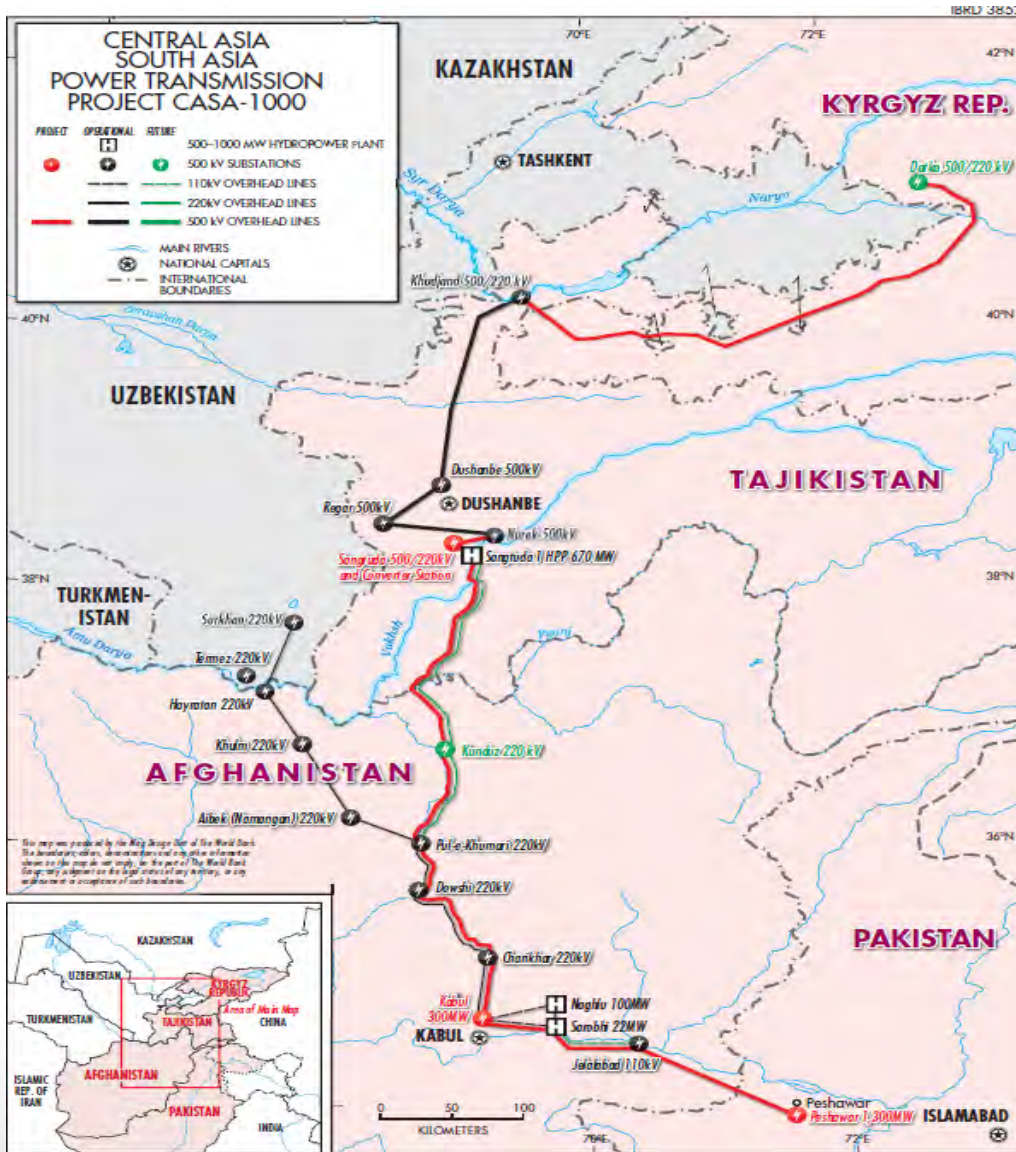
April 24, 2014

Thailand

Power trade is a rational policy choice

- In most countries energy demand and resource endowments are mismatched
 - Big hydropower potentials in Nepal and Bhutan
 - Supply demand gaps in India (1200-1300 MW), Pakistan (4000-5000 MW), Bangladesh (1500 MW)
- Diversified energy supplies – even imports – improve national energy security
- Prospects for shared economic prosperity for all parties:
 - Exporters benefit from external revenues from energy sales
 - Importers gain by removing constraints to growth
- Environmentally more sustainable supply options become possible

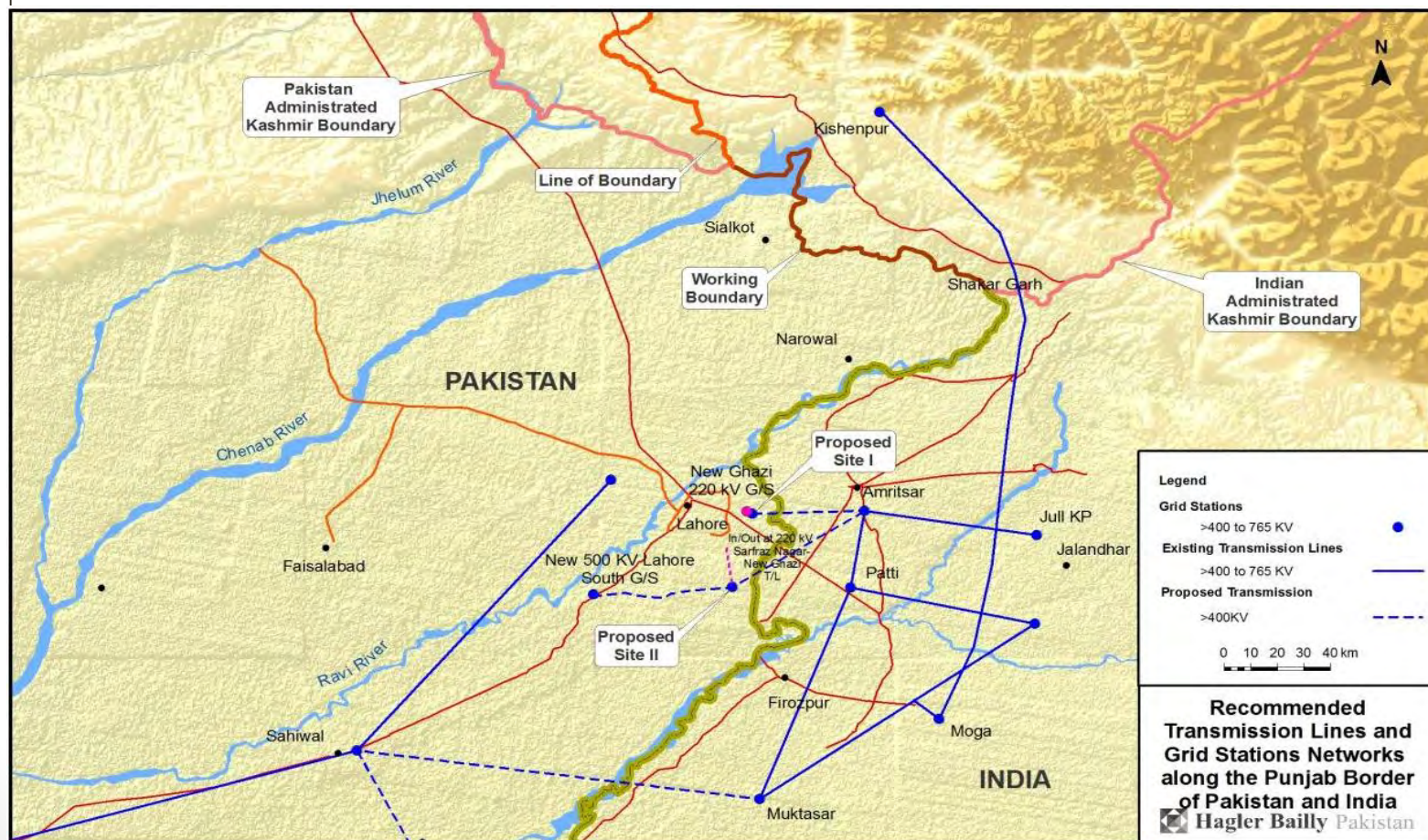
CASA-1000



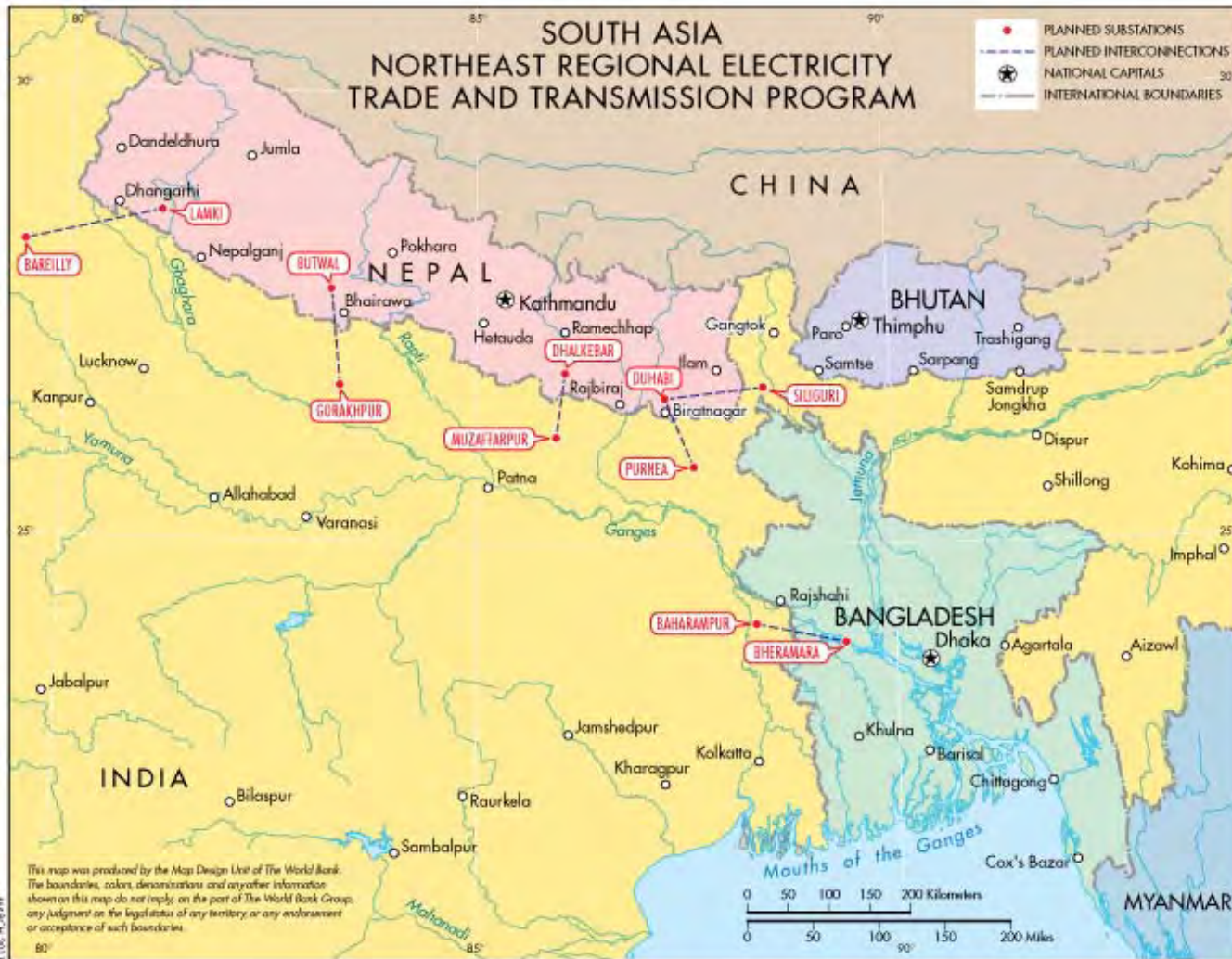
- 500 kV, up to 1000 MW transmission lines and related facilities linking Datka (KR) – Sangtuda (Taj) – Kabul (Af) – Peshawar (Pak)

India – Pakistan Interconnection

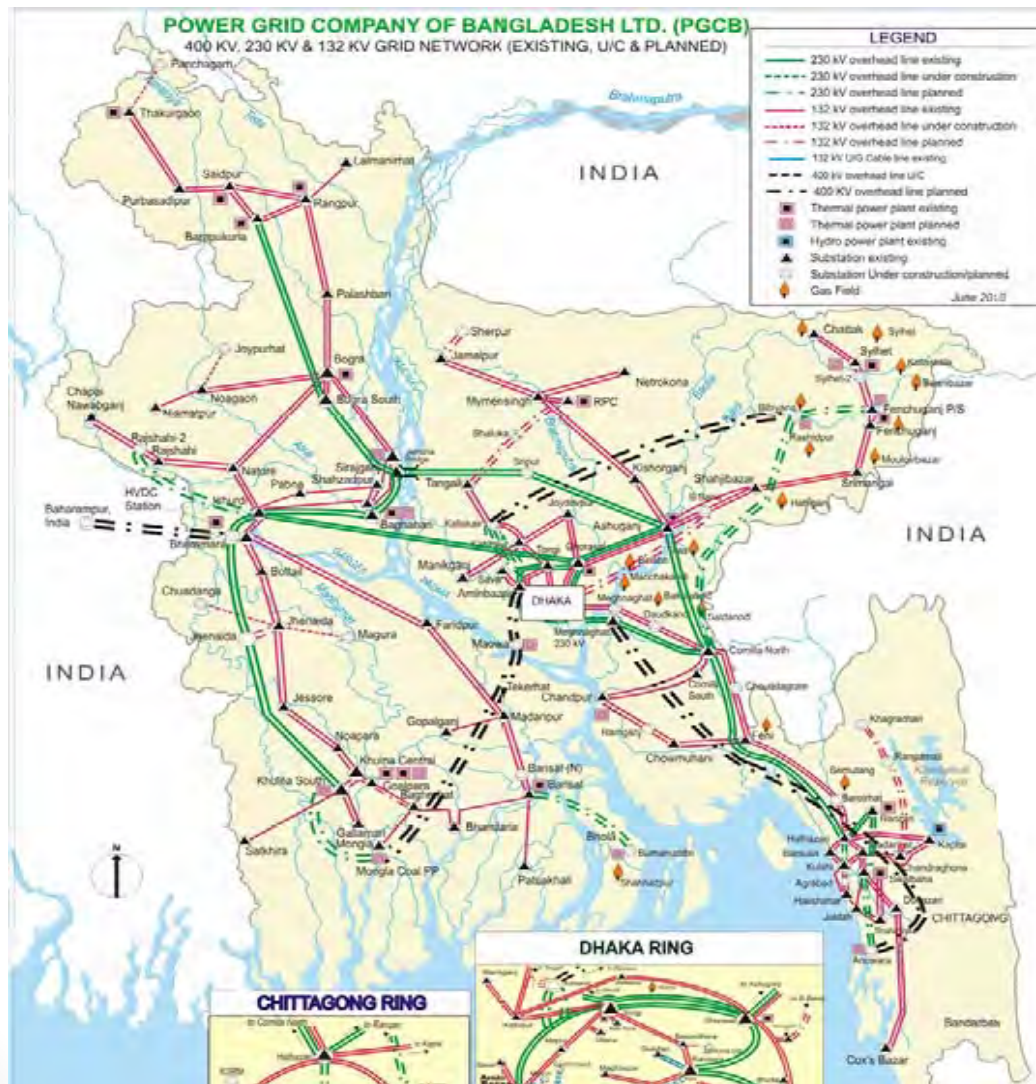
- 400 kV AC transmission line, with a 400 kV/220 kV HVDC back-to-back substation in Pakistan (500 MW)



Nepal-India, India-Bangladesh Interconnections



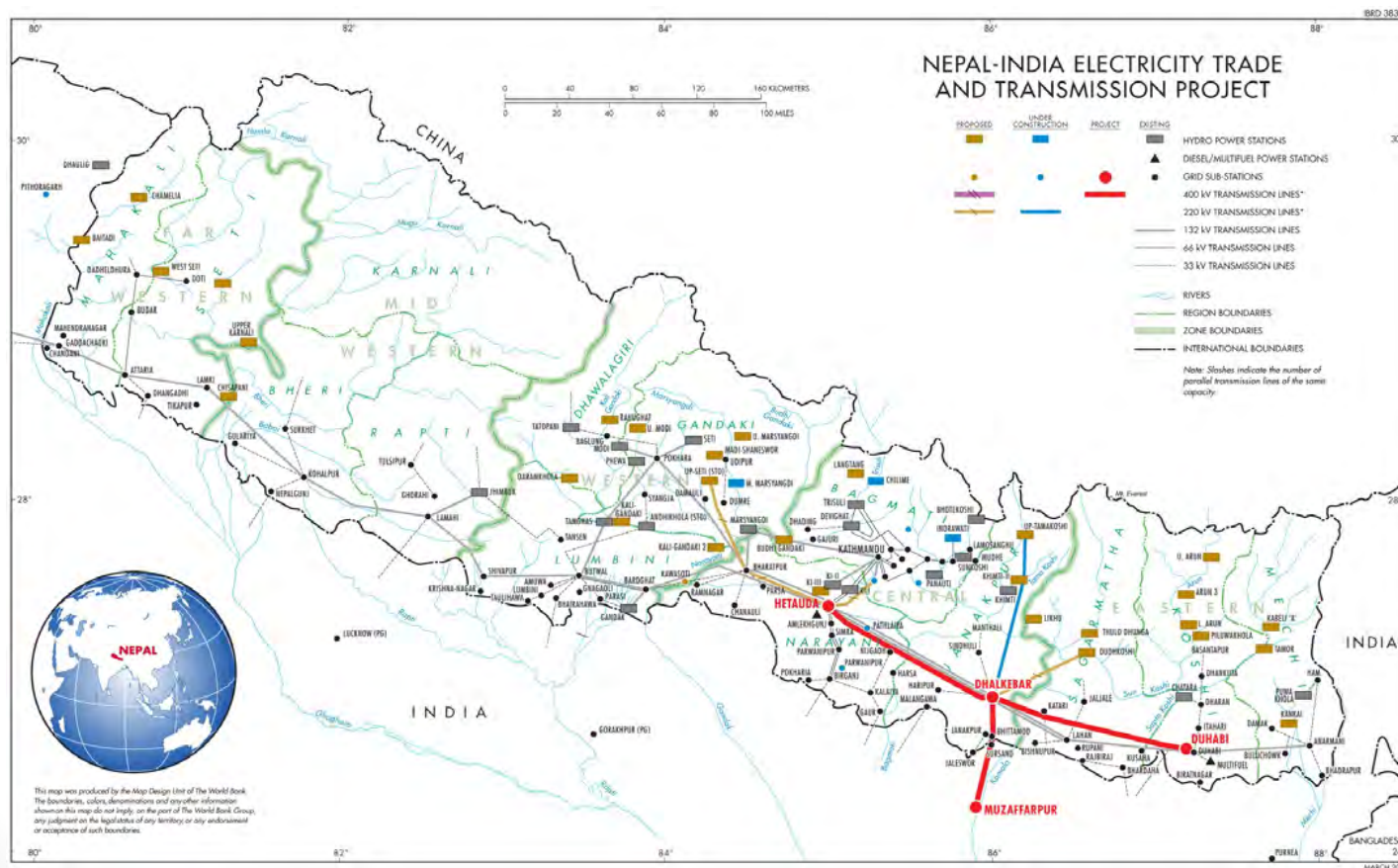
Bangladesh – India Interconnection



400 kV, up to 1000 MW transmission lines

Bangladesh – India Interconnection

- 400 kV, single-circuit transmission lines, 500 MW
- Can be upgraded to double-circuit, 1000 MW



Lessons

CASA-1000

- Creation of viable institutional arrangements with donor support is vital to progress
- Institutional structure must evolve and requires continued strengthening
- Essential to build technical understanding through background studies and learning by doing

Nepal, India, Bangladesh, Bhutan

- Bilateral power trade can start without a power trade agreement between the countries
- Bilateral power trade demonstrates benefits, engages countries to cooperate, and builds up trust and confidence

Parting thoughts

- Cooperating on energy requires multi-layered political, technical and commercial linkages and creates interdependence and connectivity
- Energy trade both drives and requires regional cooperation mechanisms
- For the South Asia Region, there are significant opportunities to develop and encourage energy transit and trade
- Willingness and firm commitment to promote investments in cross-border power flows
- Fostering improved security in Afghanistan will raise the prospects for energy trade; more energy trade will improve security