Asian Energy Highway

Energy Connectivity for Enhanced Energy Security

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Challenges

Asia-Pacific energy demand is projected to grow by 2.4% a year for the next 20 years - highest growth in East Asia at 4.8% and South Asia at 3.5%

Consumption Intensity

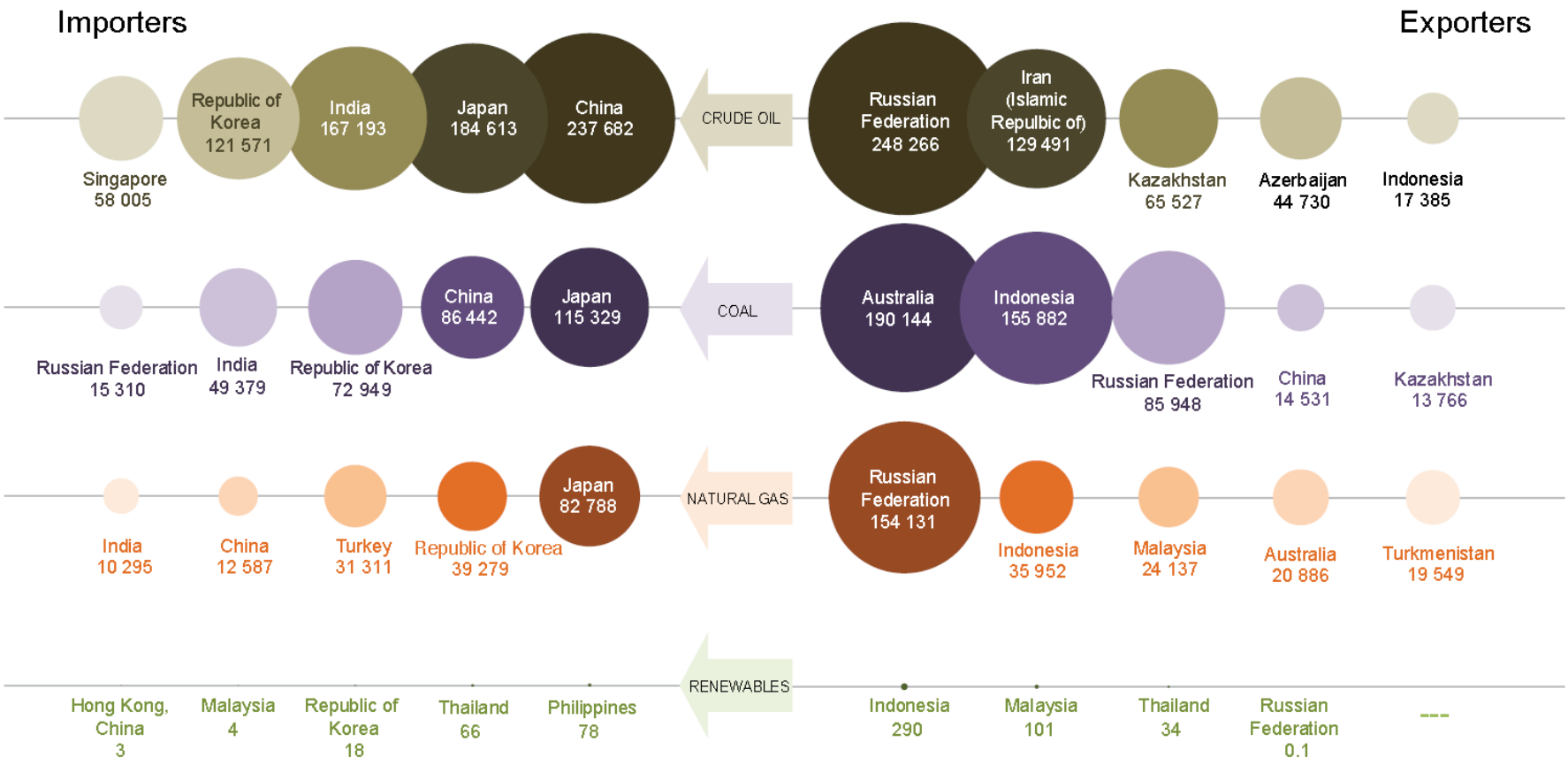
Between now and 2050, Asia will be transformed as its urban population nearly doubles from 1.6 billion to 3.1 billion

Asia is projected to surpass the OECD before 2030 to become the world's largest energy consuming block

Resource Distribution

The uneven distribution of energy resources within the Asia-Pacific is presents a variety of challenges at the national level in terms of supply security

Top five importers & exporters by energy resources in Asia and the Pacific, 2010 (ktoe)



Source: ESCAP, *Statistical Perspectives: Focus Areas for Realizing Enhanced Energy Security* (2013)

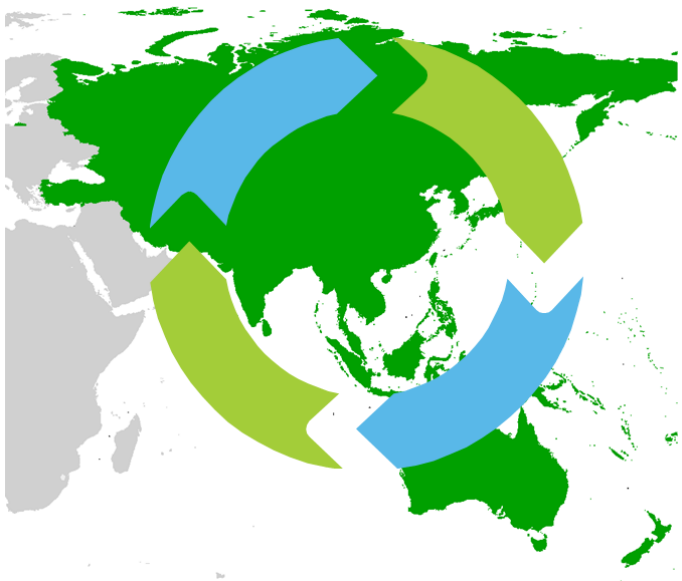
Opportunity

- **Energy trading is currently occurring within the Asia-Pacific region however it is primarily limited to bilateral agreements between neighboring states**

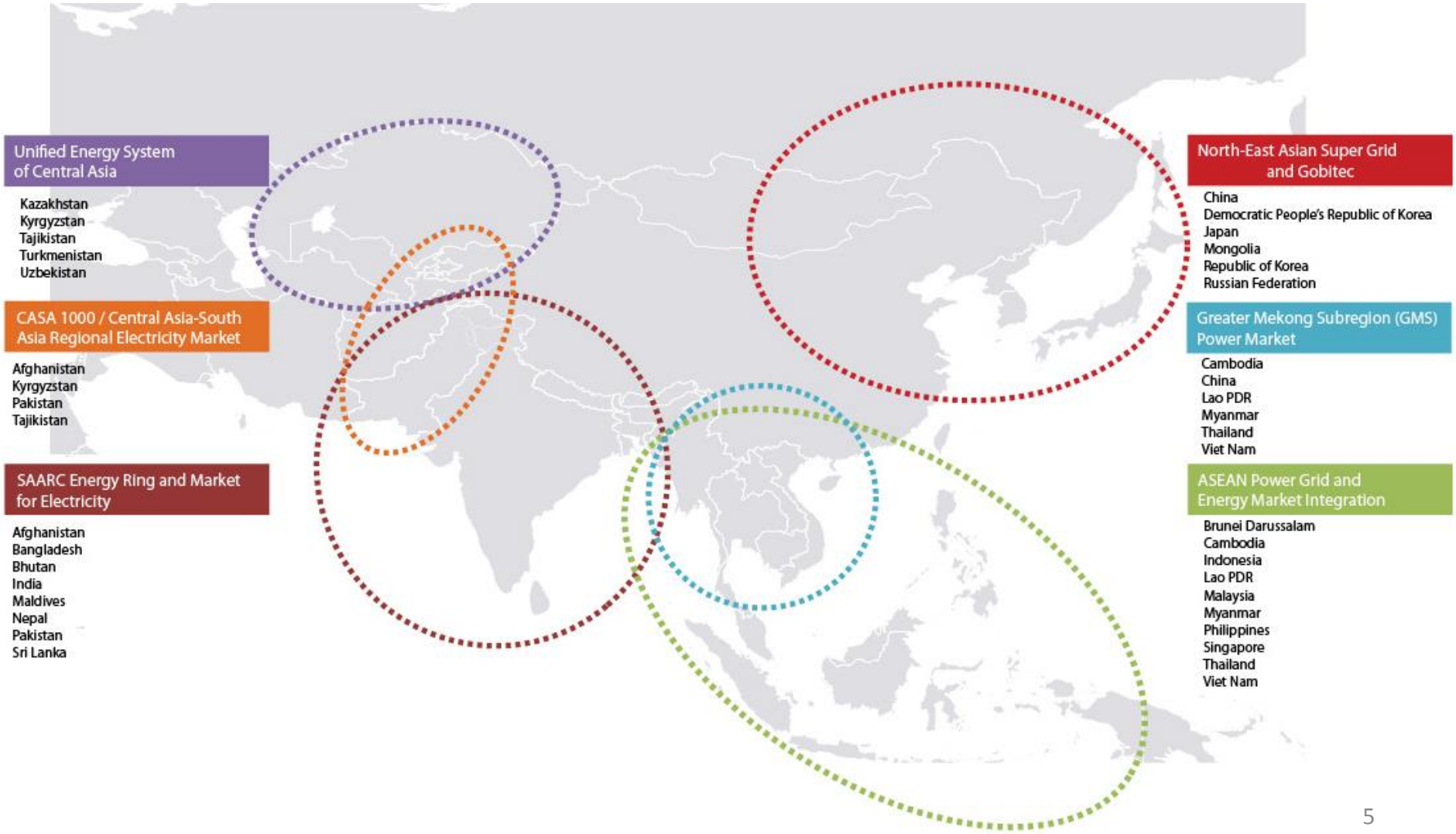
- **Regional Integration. The economically sound allocation of energy resources is likely to be more efficiently accessed and distributed using regionally integrated energy planning and trading**

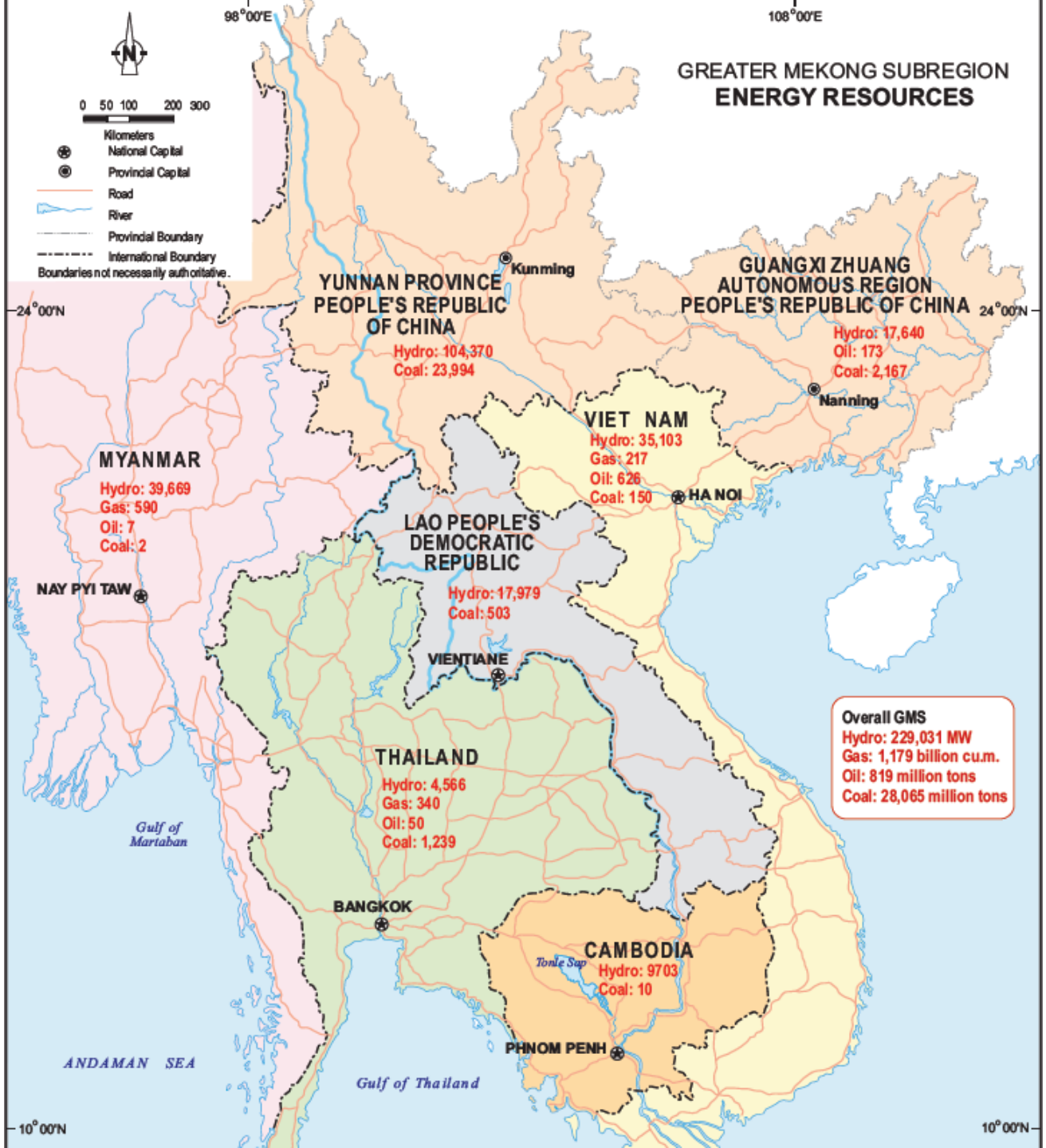
Some sub-regional recognition of need for greater cooperation:

1. ASEAN Power Grid and Energy Market Integration
2. SAARC Energy Ring and Market for Electricity
3. CASA 1000 and Central Asia-South Asia Regional Electricity Market
4. Greater Mekong Subregion Power Market
5. North-East Asian Super Grid and Gobitec
6. Unified Energy System of Central Asia



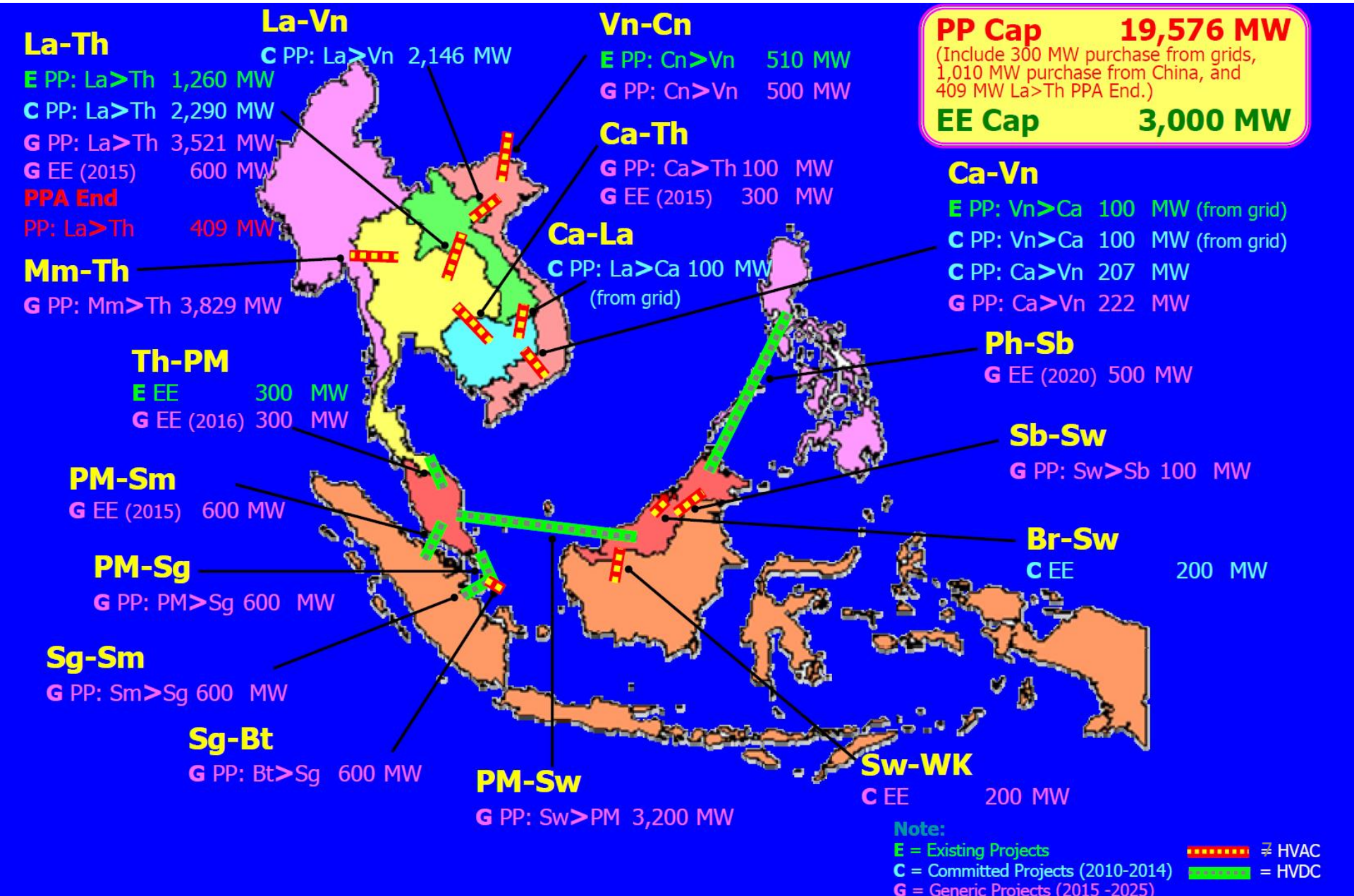
Subregional Initiatives on Power Grids and Electricity Markets



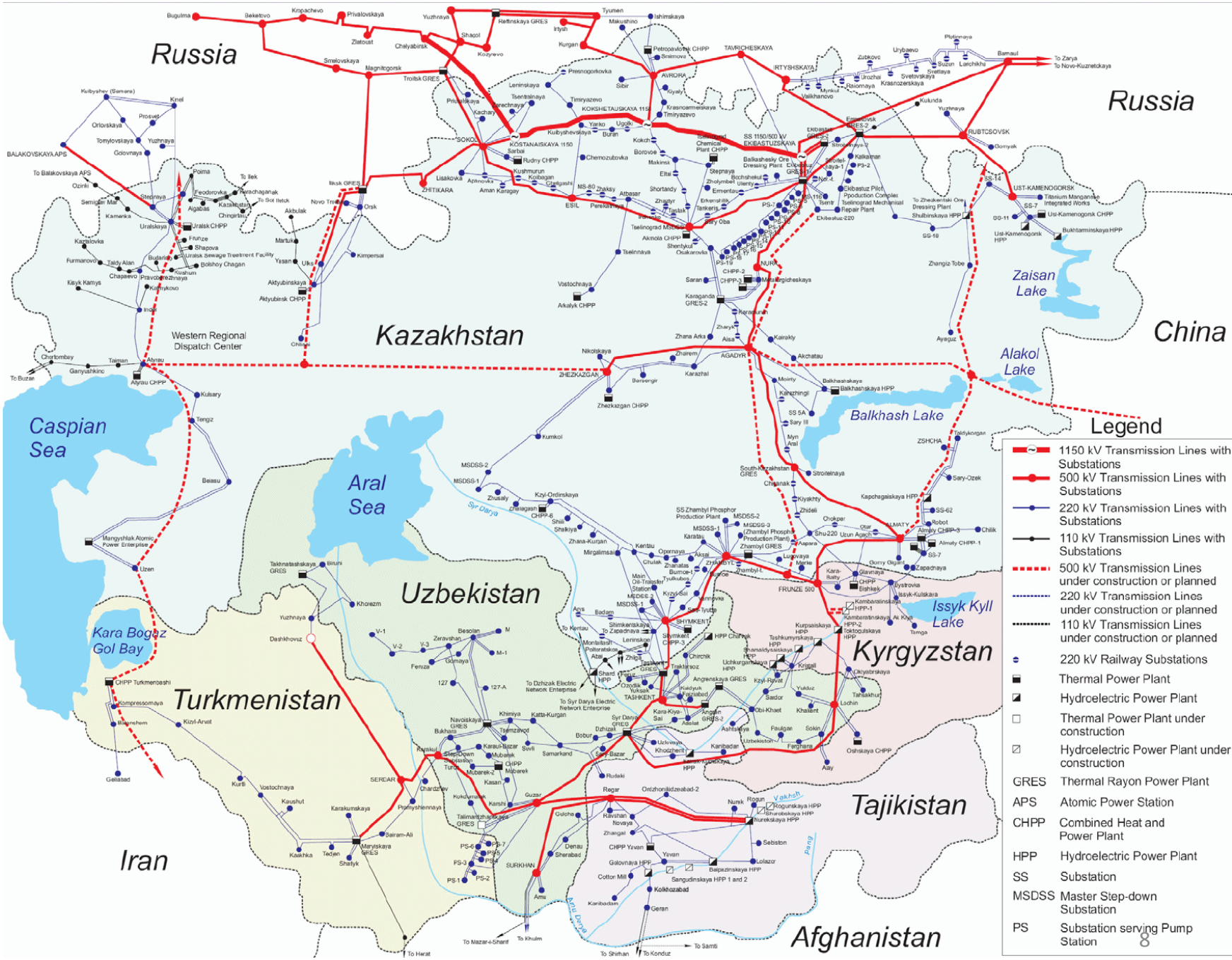


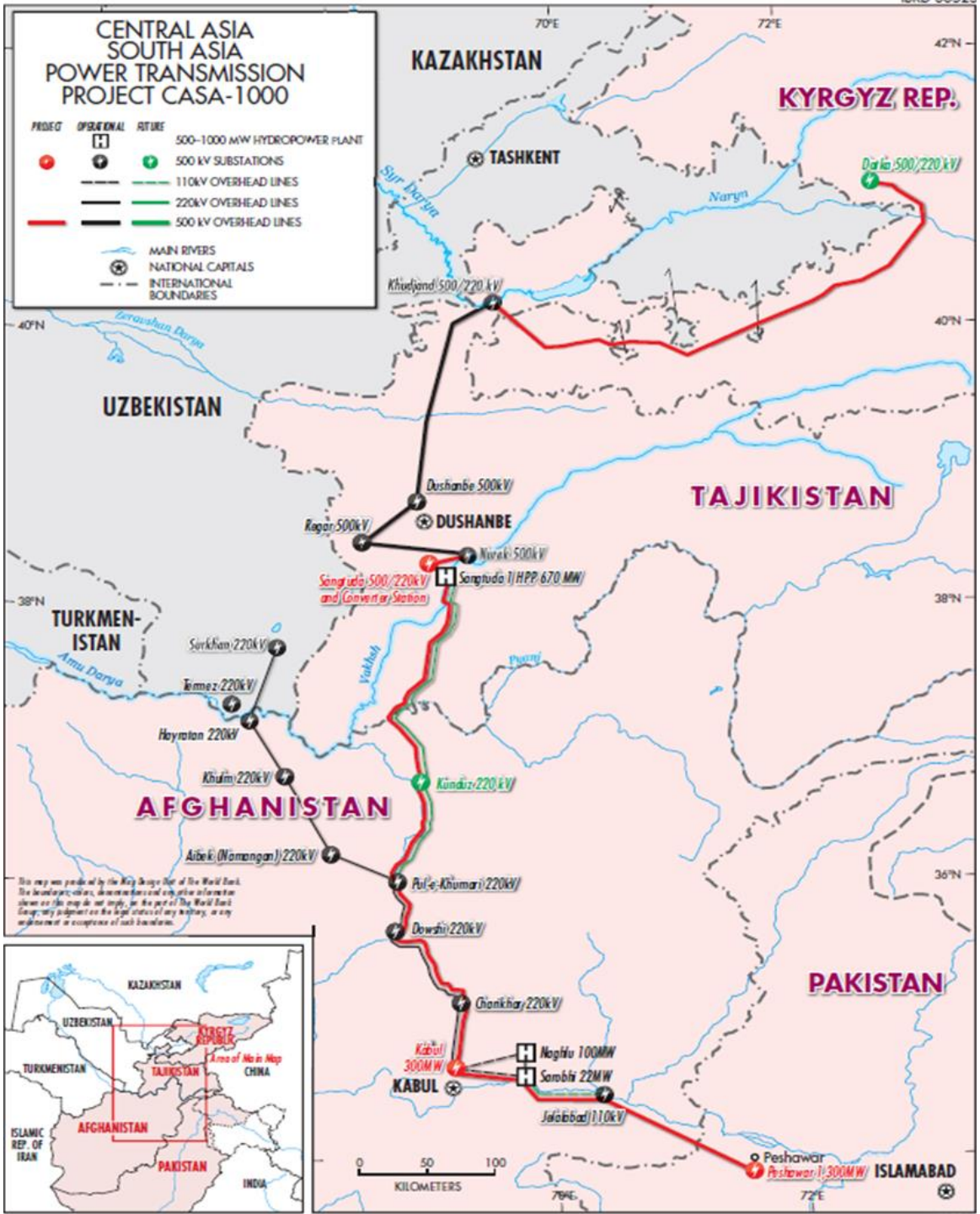
Greater Mekong Subregion Power Market

ASEAN Power Grid



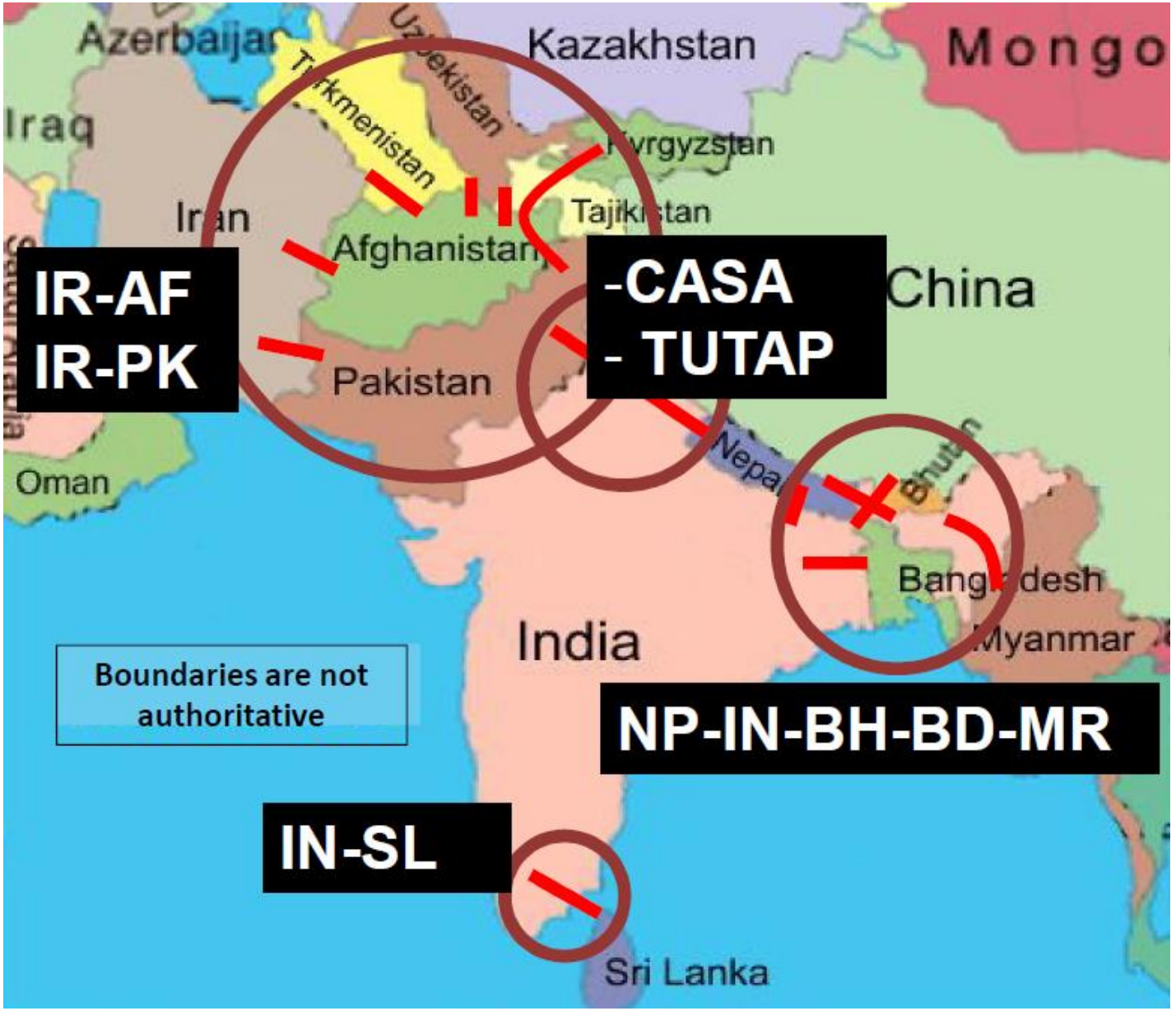
Unified Energy System of Central Asia



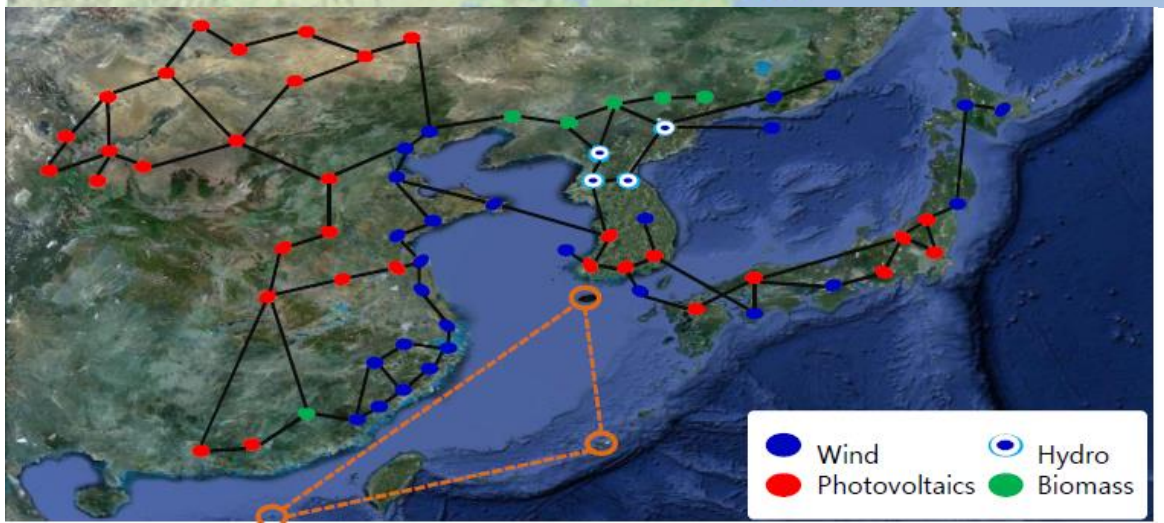


CASA 1000: Flagship Project of Central Asia-South Asia Regional Electricity Market (CASAREM)

SAARC Energy Ring's power grid



Northeast Asian Super Grid & Gobitec



Connectivity for energy security

- ESCAP Promotes Regional Cooperation for Energy Security and Sustainable Development
- In its 68th Commission Session in May 2012, member States adopted a Resolution (68/11) to enhance regional energy security through by improving efficiency, connectivity, and promoting a greater share of renewable and clean energy for a more sustainable future

Main activities

- **"Identify options, in consultation with member States, that member States may choose on regional energy connectivity, including an intergovernmental framework that could be developed for an integrated regional power grid, which could be termed as the "Asian Energy Highway (AEH)"**
- **Analyze the socioeconomic and environmental benefits of each option as well as the challenges and opportunities towards the realization of each option**

Asian Energy Highway benefits

Economic

- Improved energy efficiencies in power production and trade through enhanced levels of regional integration
- Optimisation of resource allocation between supply and demand centres, opening up trading opportunities and resource security alternatives

Social

- Improved energy access through broader coverage and trading
- Enhanced security through diversification of sourcing

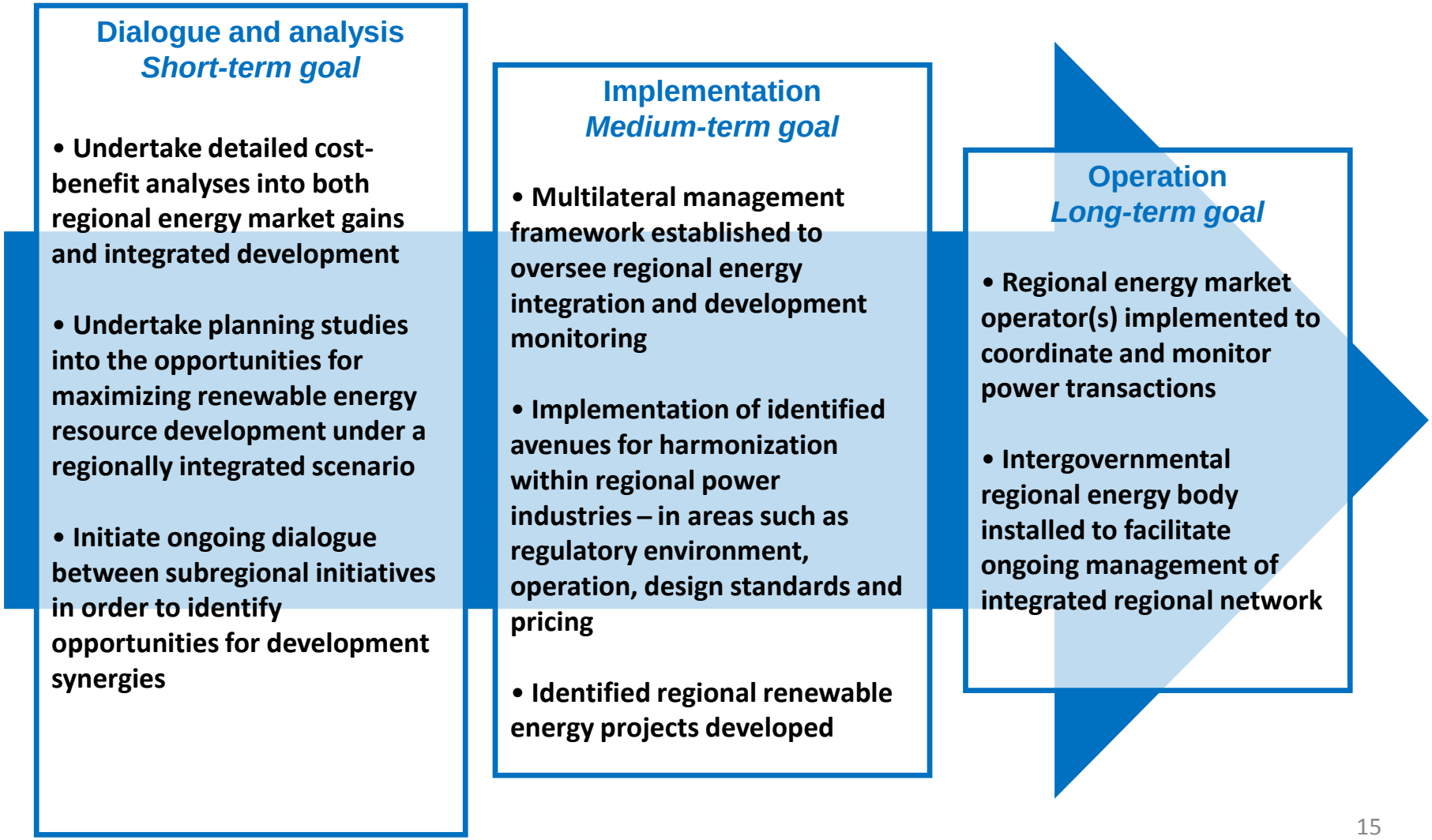
Environmental

- Integrated energy planning improves the capacity to reduce generation excesses and losses by supporting through enhanced regional load management capabilities
- Improved prospects for injection of renewable energy technologies

Progress so far

- **Concept integrated in Asia-Pacific regional cooperation framework for energy**
- **Analytical work started**
- **Expert Group Meeting on Conceptualizing the AEH**
- **Policymakers request benefits study**
- **Further identify and quantify the socio-economic and environmental benefits of an AEH**
- **Subregional approach adopted**

Roadmap for an Asian Energy Highway



THANK YOU!