Mobilizing Funds for Essential Power Sector Investments

CAREC
Central Asia Regional Economic Cooperation

Country Overview (2010)

Country	Population (million)	GDP at PPP[1] (million $)	GDP Growth Rate (%)	GDP per Capita at PPP ($)	GIR[2] (million $)	FDI[3] (million $)	Current Account/ GDP (%)	Fiscal Balance /GDP (%)	Sovereign Rating
Kazakhstan	16.1	197,376	7.0	12,336	28,291	9,961	2.9	-2.4	BBB
Kyrgyz Republic	5.4	12,151	-1.4	2,246	1,719	234	-3.3	-5.1	-
Tajikistan	7.6	* 13,714	* 4.0	* 1,840	476	16	-6.8	-6.1	-
Uzbekistan	28.5	* 79,826	8.5	* 2,875	14,580	* 750	* 12.6	0.3	B

* 2009 data

Sources:
- Key Indicators for Asia and the Pacific 2011
- Asian Development Outlook 2012
- Economist Intelligence Unit 2012

Notes:

[1] GDP at PPP = GDP at Purchasing Power Parity

[2] GIR = Gross International Reserves

[3] FDI = Net Inflows

Regional Power Master Plan (RPMP) – Project Prioritization Plan

- RPMP follows the CAREC 2020 guidelines and prioritizes projects:
  - Generation
    1. Rehabilitation of existing power plants
    2. New power plants to replace those that cannot be rehabilitated
    3. New power plants to meet higher demand
  - Transmission
    1. Rehabilitation of transmission lines and substations
    2. New transmission lines and substations to remove bottlenecks
    3. New transmission lines to connect new power plants
    4. Projects to strengthen power exchange between the CAREC countries, and
    5. New transmission lines to optimize power flow

- The RPMP project pipeline has been established on the basis of an assessment of technical and economic benefits, ranking projects in a descending order of priority.

Power Sector Investment Requirements (2011-2022), $million

	Transmission	Generation		Total
		Rehabilitation	New	
Region-wide	3,079	3,259	28,353	34,691
Kazakhstan	914	456	14,780	16,150
Kyrgyz Republic	438	765	6,095	7,298
Tajikistan	431	1,291	1,146	2,868
Uzbekistan	743	747	6,332	7,822
Cross-border	552	---	---	552

Source: Regional Power Master Plan (2012)

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Funding Sources

- Government and SOE budgets
- Sovereign wealth funds
- Multilateral and bilateral donors
- Export credit agencies
- Private investments

Rationale for Private Investment

- Across the CAREC region, there is need to induce private investment in the power sector for:

  - broadening the ownership base to increase competitiveness;
  - benefitting from technological developments and management skills; and
  - filling financing gaps in infrastructure development programs

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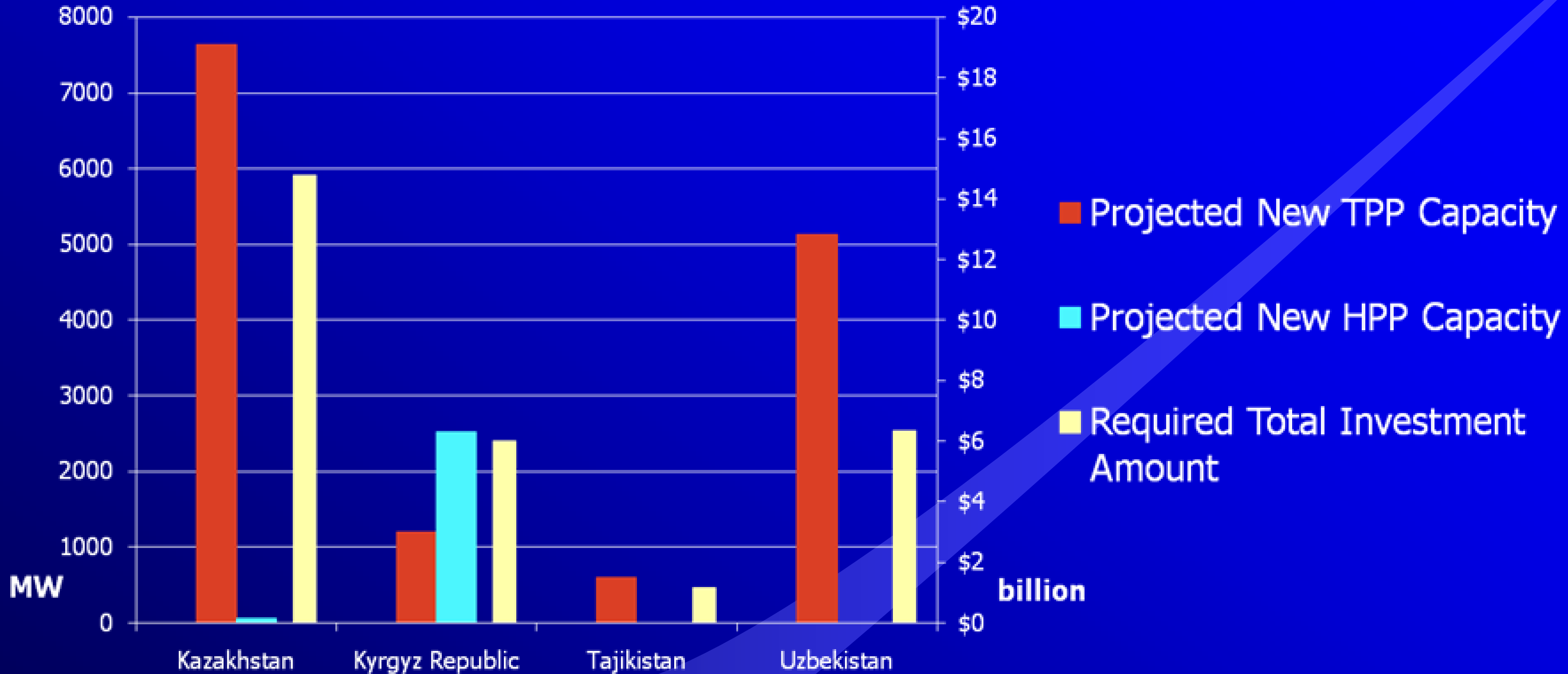
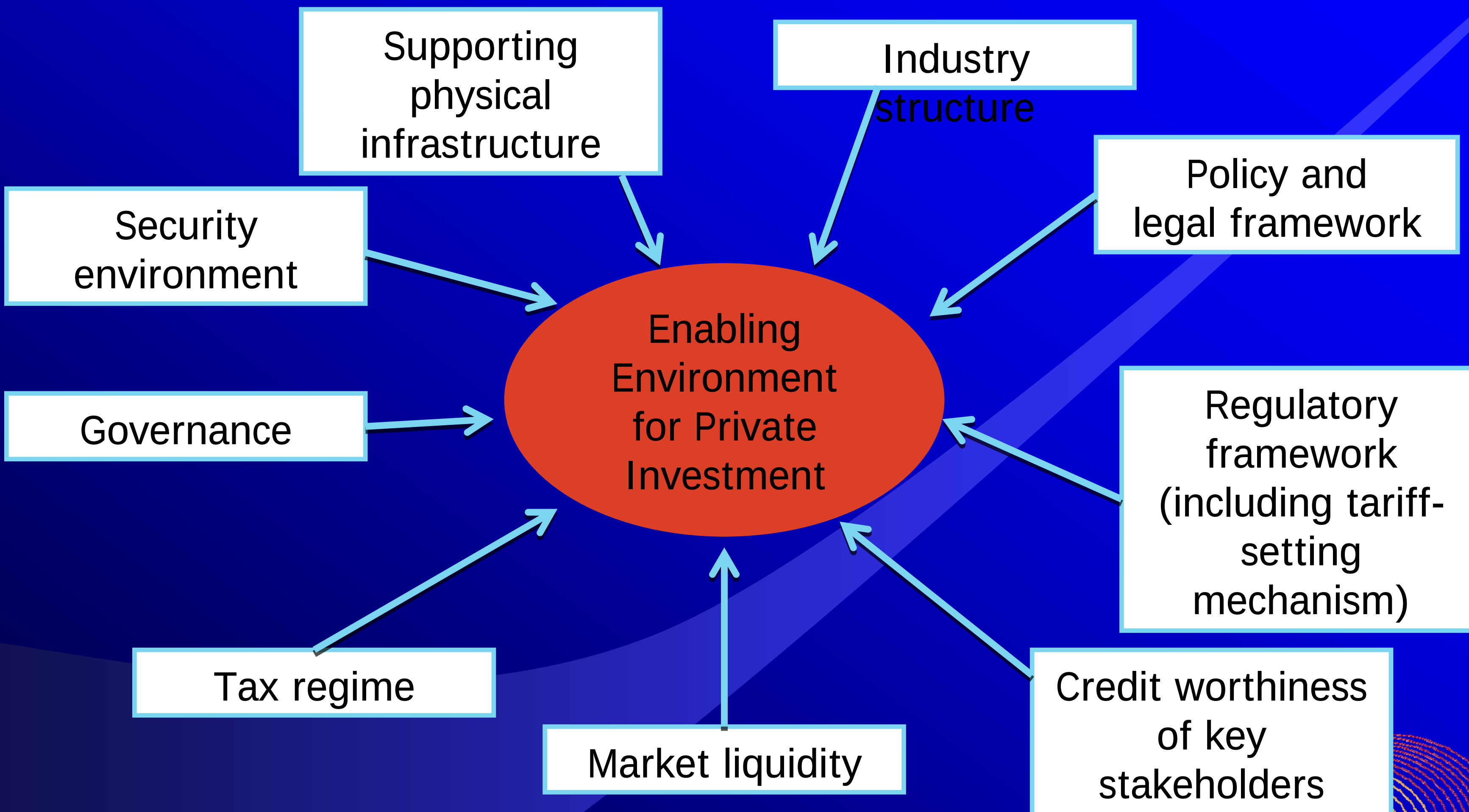
Projects with Potential for Private Investment



Source: Regional Power Master Plan

Projects which would require restructuring of the power sector, in order to attract private investment, have not been considered.

Enabling Environment for Private Investment in Power Sector



Generic Public-Private-Partnership (PPP) Screening Criteria

- Government priority
- Capital investment size
- Technical, financial, economic, and environmental feasibility
- Presence of international, regional or national PPPs in the same sector
- Private sector interest
- Risk profile and risk structure
- Revenue streams

PPP Readiness Index for Asia-Pacific

Nascent (0-30)		Emerging (30-60)		Developing (60-80)		Mature (80-100)	
	Investment ($million)		Investment ($million)		Investment ($million)		Investment ($million)
Mongolia	45	Bangladesh	8,313	Gujarat State		Australia	
Papua New Guinea	286	Indonesia	52,030	India	272,769	UK	
Viet Nam	8,682	Kazakhstan	9,946	Japan			
		Pakistan	31,907	Korea, Rep			
		Philippines	54,322				
		PRC	116,325				
		Thailand	43,446				

PPP Activity in the Asia-Pacific, 1990-2011

Top 10 Countries, by value of investment	Top 10 Countries, by number of projects
1. India	1. PRC
2. PRC	2. India
3. Philippines	3. Thailand
4. Indonesia	4. Philippines
5. Thailand	5. Indonesia
6. Pakistan	6. Pakistan
7. Kazakhstan	7. Viet Nam
8. Viet Nam	8. Bangladesh
9. Bangladesh	9. Kazakhstan
10. Sri Lanka	10. Georgia

Source: PPI Database, World Bank

Example of Public-Private-Partnership Project in the Energy Sector: Nam Theun 2 Hydropower Plant

Transaction Outline

- BOOT hydro project in Lao PDR: 1,070 MW
- Developed through a PPP arrangement between EDF (France), EGCO (Thailand), Ital-Thai (Thailand) and the Government of Lao PDR.
- Power exports to Thailand: up to 995 MW under 25 year take-or-pay PPA
- Final Project cost: $1.3 billion, debt: $1.0 billion debt (inclusive of contingencies)
- ADB's role:
  - $50 million project loan
  - $50 million political risk guarantee
  - $20 million loan to the Lao government to fund its equity investment in the project

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Example of Public-Private-Partnership Project in the Energy Sector: Nam Theun 2 Hydropower Plant

- Equitable risk allocation
- Largest private sector cross-border power project financing
- Revenue management program to reduce poverty in Lao PDR
- Significant step in the cooperation between Lao PDR and Thailand
- Robust environmental and social safeguards program
- Project completion in December 2010

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Way Forward

- Assess the capacity/appetite in each country to finance essential power projects from its own resources.

- Explore other potential sources of financing, including private investment.

- Undertake preparatory work to set-up a CAREC project development facility (PDF), with a view to mobilizing private sector interest and promoting public-private-partnerships.

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Way Forward

- A PDF can help public sponsors to secure quality consulting and advisory services, giving PPP-potential projects the best chance of success by being appropriately structured and well prepared. Concurrently, a PDF can identify projects that are not suitable for private sector participation, thereby avoiding damage to reputation and negatively impacting market sentiment.

- Country PDFs: India, Indonesia, Philippines, Vietnam; Regional PDF initiative: ASEAN-Singapore