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# CAREC

## Senior Officials Meeting (SOM)

### Energy Sector Coordination Committee

Progress Report

By World Bank

March 26, 2007

ADB Headquarters, Manila, Philippines

# Progress Report Outline

- Regional Energy Projects
  - Projects underpinning electricity trade with South Asia
  - Regional Gas projects
  - Options for Movement of Primary Energy Commodities Study (OMPECS)
- Energy Sector Strategic Action Plans (ESSAP)
- Clean Development Mechanism Interventions
- CAREC Member Energy Regulators Forum (CMERF)

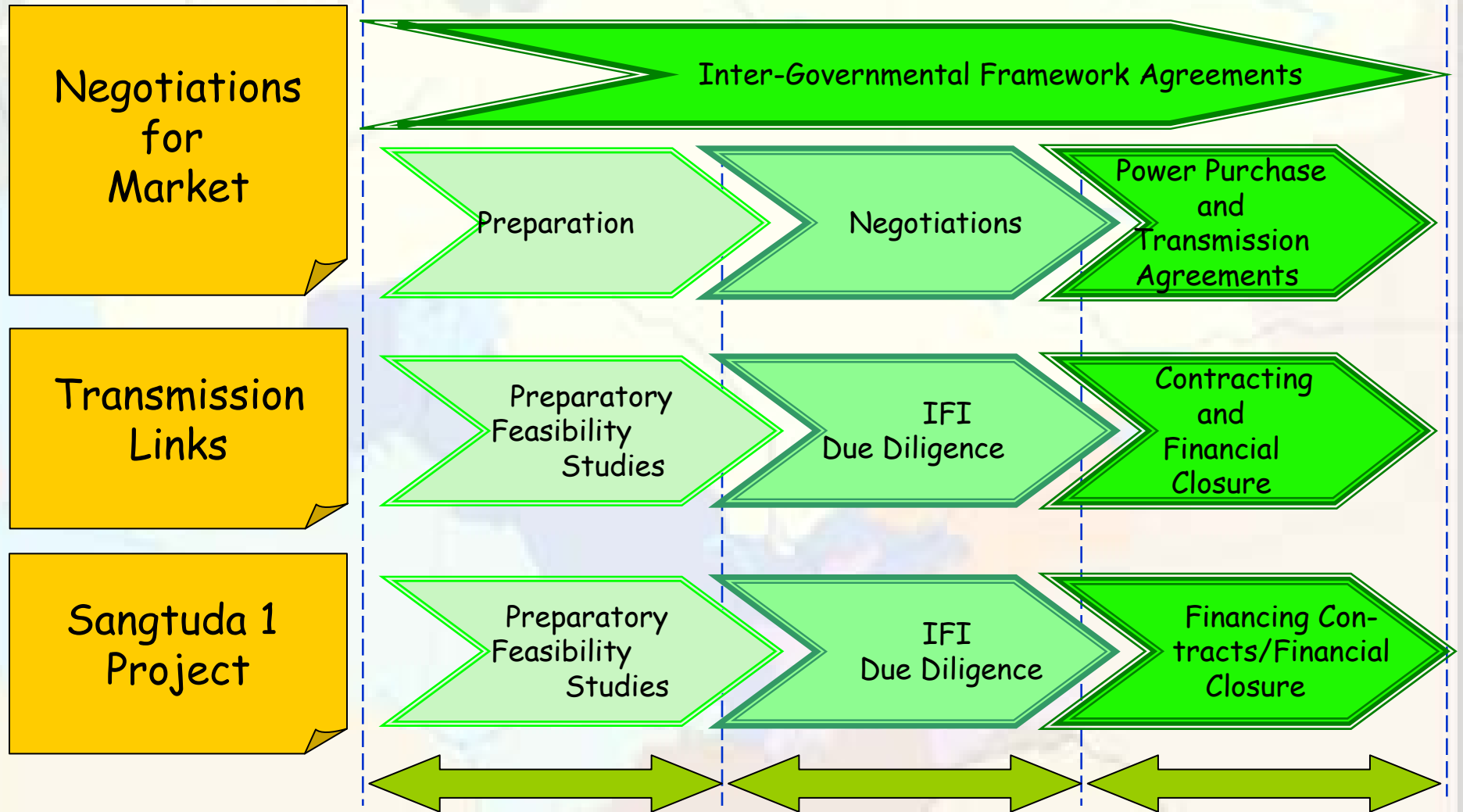
# Specific Generation projects for exports already developed-Sangtuda 1



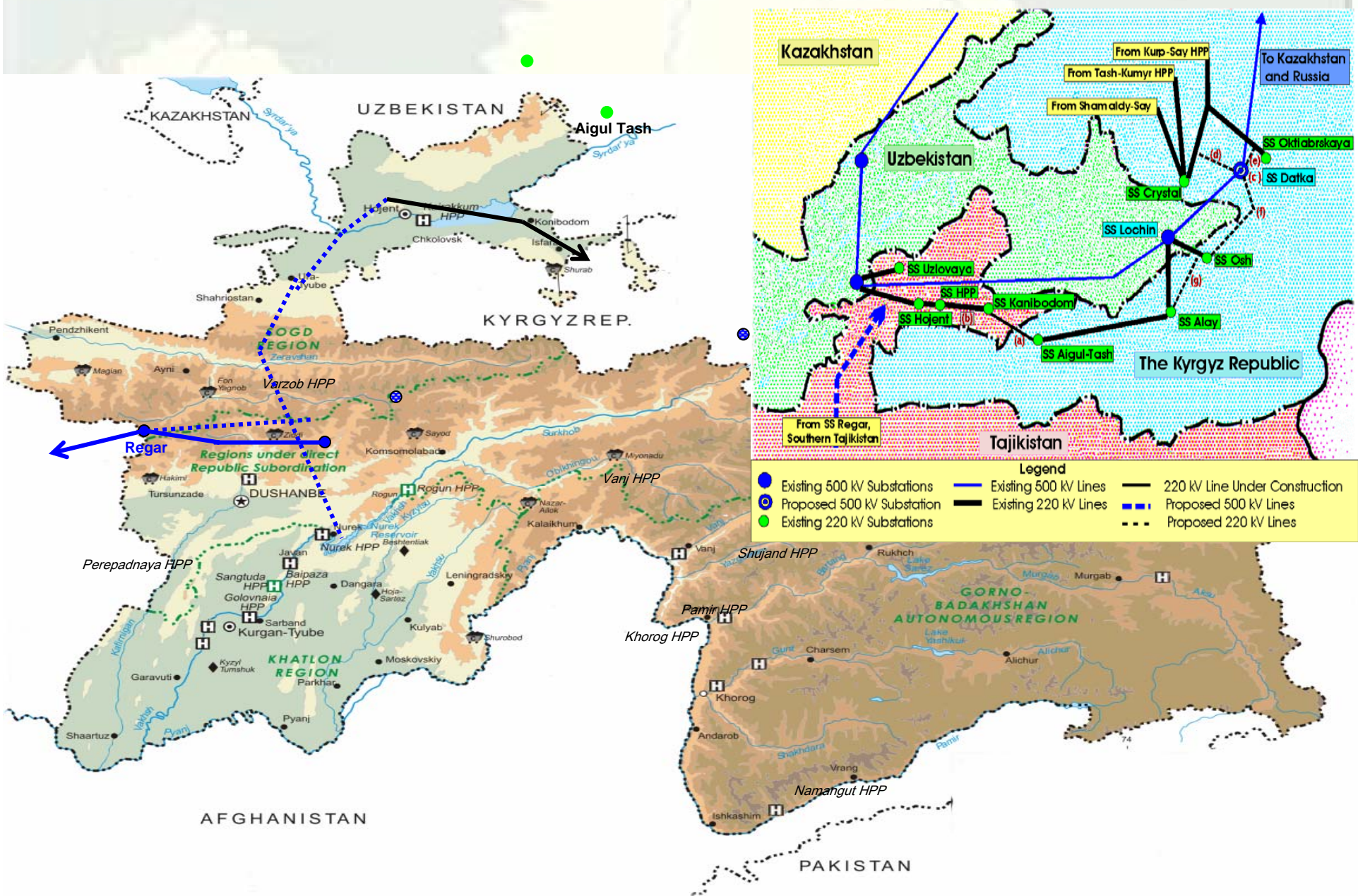
## Outcomes of Tripartite Meeting On Sangtuda 1 Financing

- Shareholding structure agreed to
  - Government of Tajikistan => 25% +1 share
  - 24% shares offered to IFIs
  - Remaining 51% will be retained by RAO UES
- Commitment to export summer production of Sangtuda 1
- Commitment to prepare for due diligence of IFIs

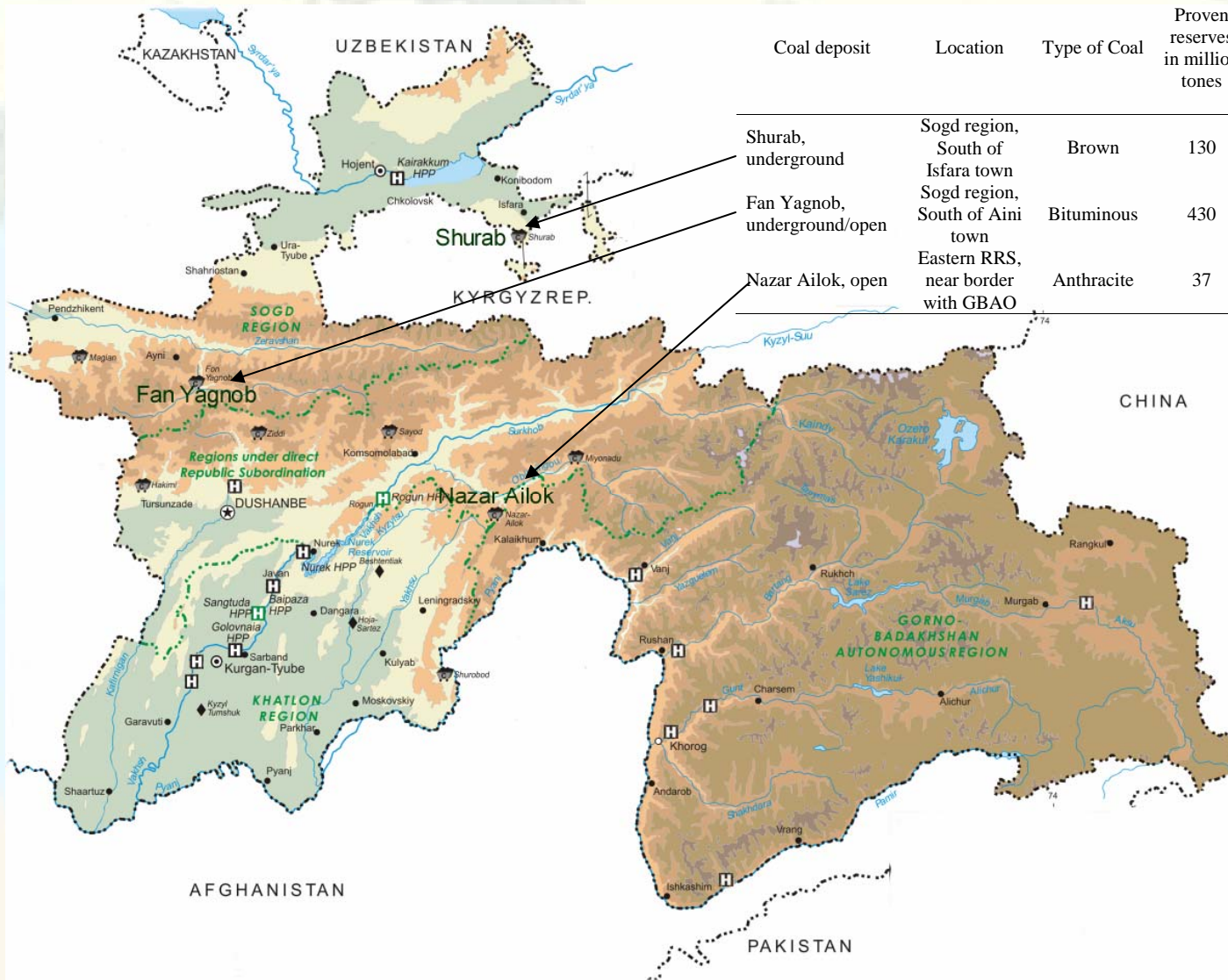
# Project(s) Financing Decision Path



# Northern Transmission Links options



# Tajikistan has launched development of coal resources - 70% aimed at exports



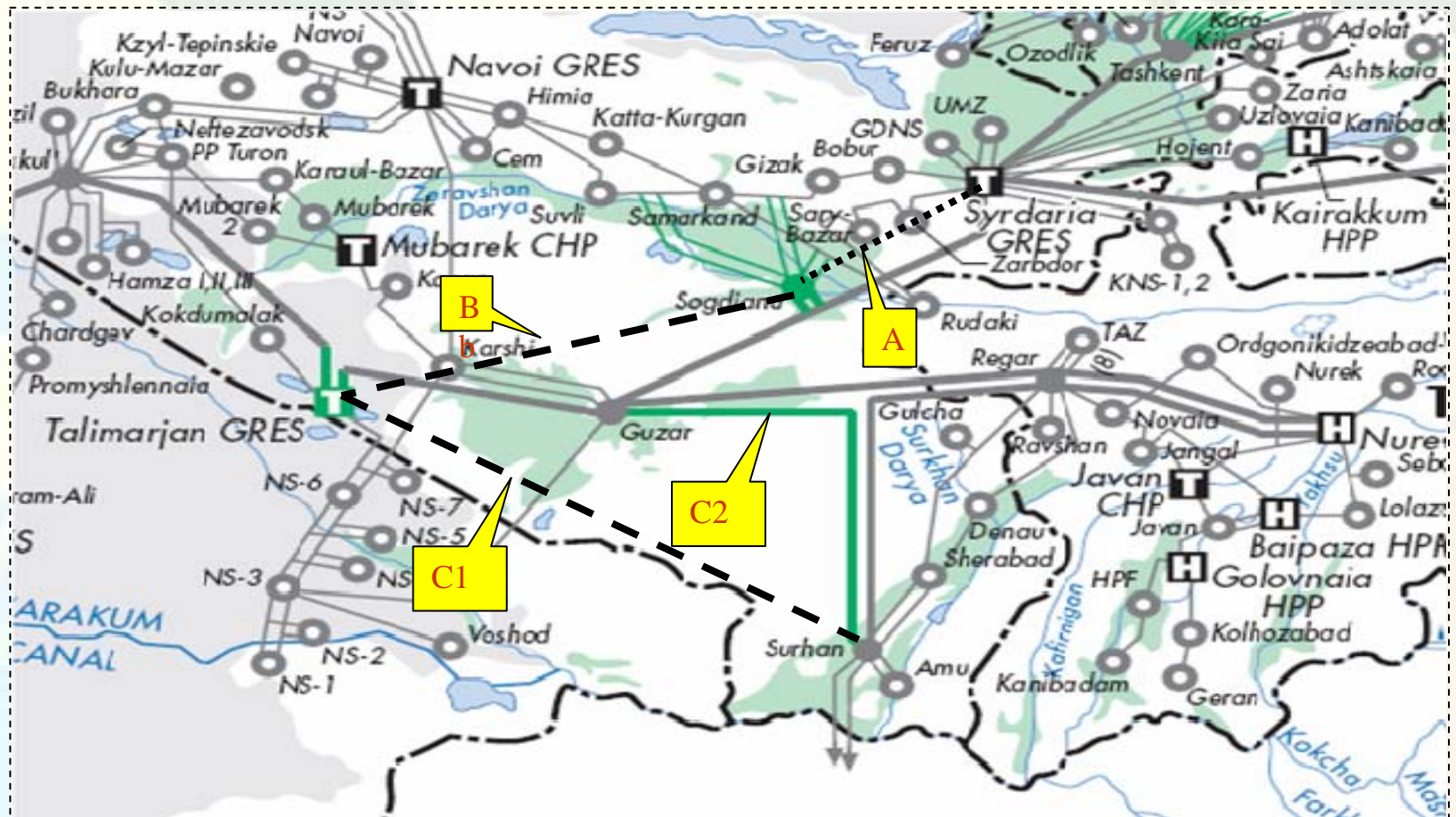
Coal deposit	Location	Type of Coal	Proven reserves in million tones	Total reserves in million tons	Calorific Value in kCal/kg (Laboratory analysis)	Calorific Value for calculations in kCal/kg (Commercial production)
Shurab, underground	Sogd region, South of Isfara town	Brown	130	300	6679	5000
Fan Yagnob, underground/open	Sogd region, South of Aini town	Bituminous	430	1352	7936-8463	6000
Nazar Ailok, open	Eastern RRS, near border with GBAO	Anthracite	37	337	7282-9100	6000

# Tajikistan exports to Afghanistan at 220 kV level





# Uzbekistan Electricity to Afghanistan



## Legend

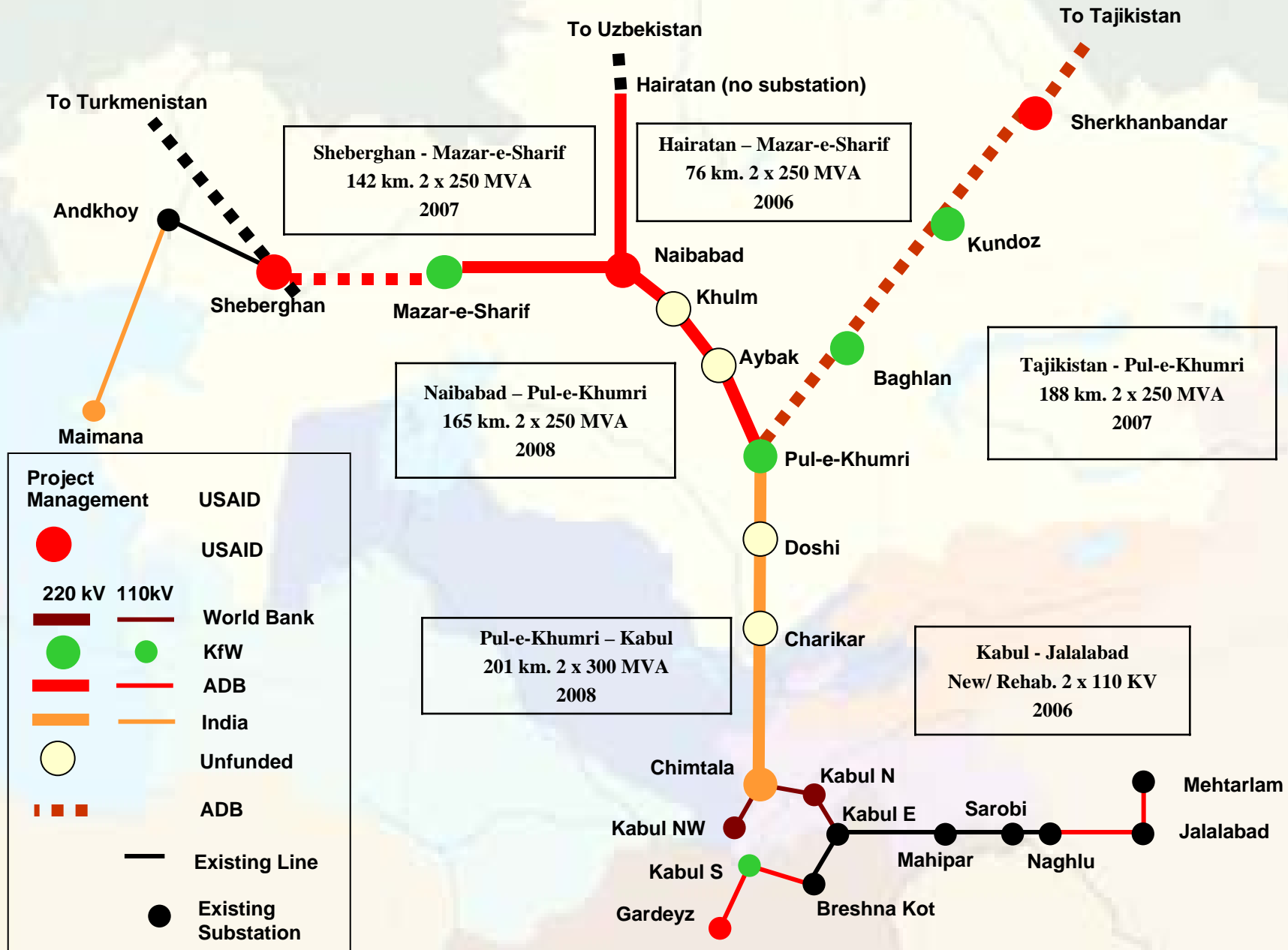
— Existing 500 kV lines; ..... 500 kV lines under construction (IsDB)

- - - - - Perspective 500 kV lines

A: Syrdarya TPP - SS Sogdiana; B: SS Sogdiana - Talimarjan TPP (GRES)

C: 500 kV line Talimarjan TPP - SS Surhan

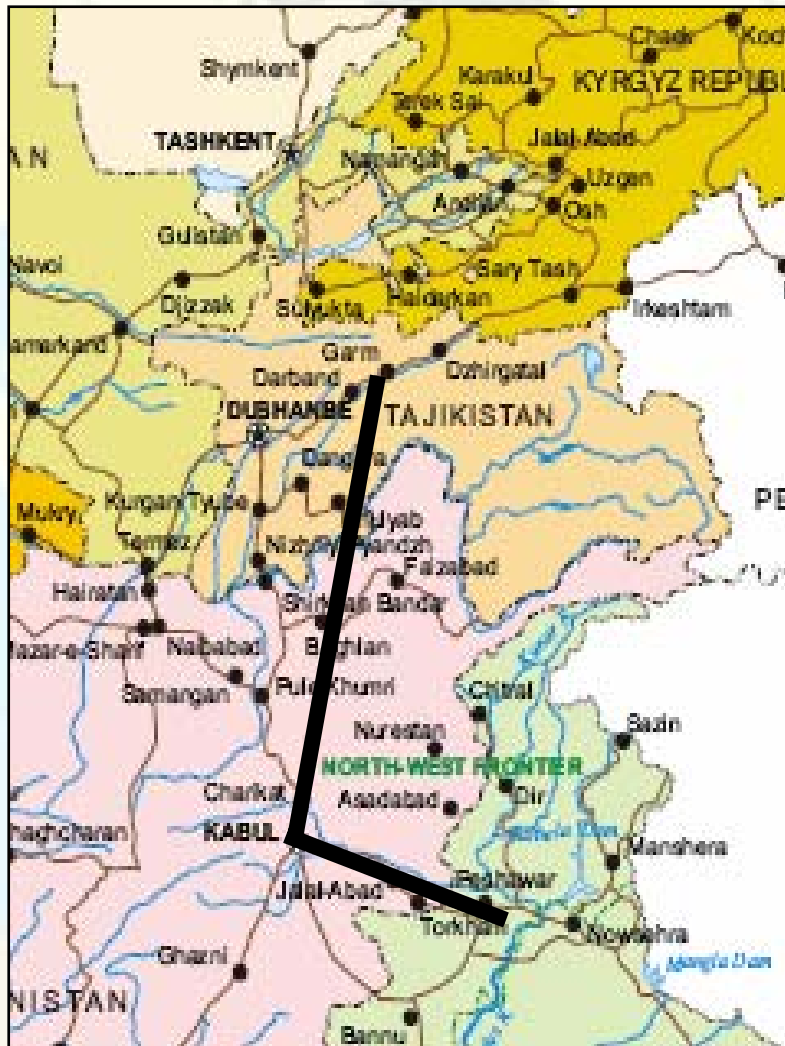
# Central Asian Imports to Afghanistan



## Central Asia South Electricity Trade and Transmission Project (CASA 1000)

- First Inter-Governmental MoU signed in Dushanbe in October 2006
- Highlights
  - Phase I – 1000 MW; with possibility for more later
  - Private Sector Participation preferred

# Transmission Line will be routed through Kabul



## Transmission Line Length (km)

<b>Tajikistan</b>	<b>166</b>	<b>22%</b>
Nurek to Sangtuda 1	60	
Sangtuda I to Shekhanbandar	106	
<b>Afghanistan</b>	<b>544</b>	<b>70%</b>
Shekhanbandar to Pul-e-Khumri	154	
Pul-e-Khumri to Kabul	220	
Kabul to Jalalabad	90	
Jalalabad to AFG border	80	
<b>Pakistan</b>	<b>60</b>	<b>8%</b>
AFG border to Peshawar	60	
	<b>770</b>	

## Feasibility Studies launched

- Resource Assessment in CA
- Demand Assessment in SA
- Techno-economics of trans. Line
  
- Institutional
- Financial
- Risk Mitigation
- Legal Framework

# Decision Making Framework

Inter-Ministerial Council

Multi-Country Working Group (MCWG)

Afghanistan

Kyrgyz Rep.

Pakistan

Tajikistan

TEA WG

TEA WG

TEA WG

TEA WG

IFRL WG

IFRL WG

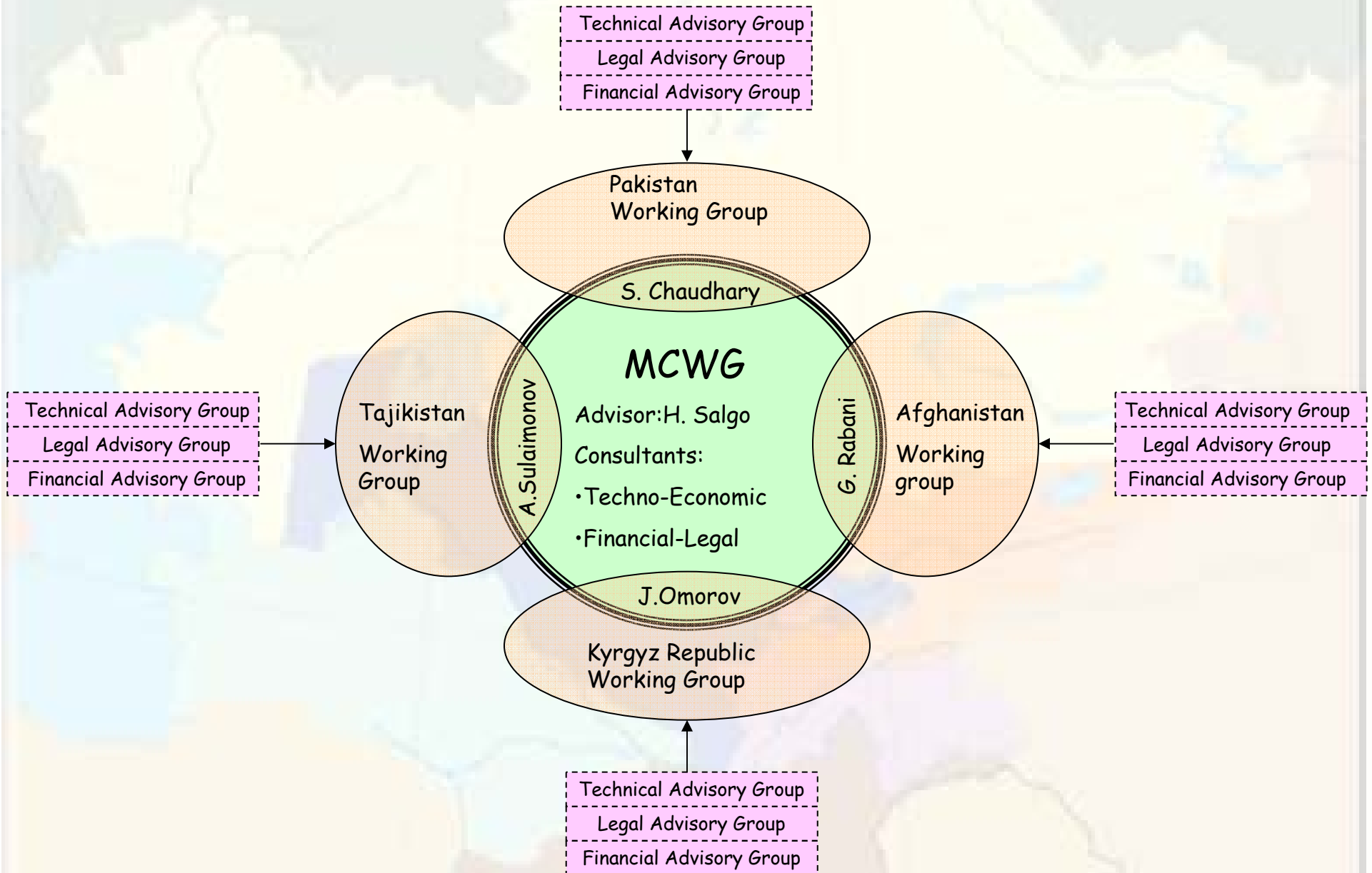
IFRL WG

IFRL WG

International Financial Institutions

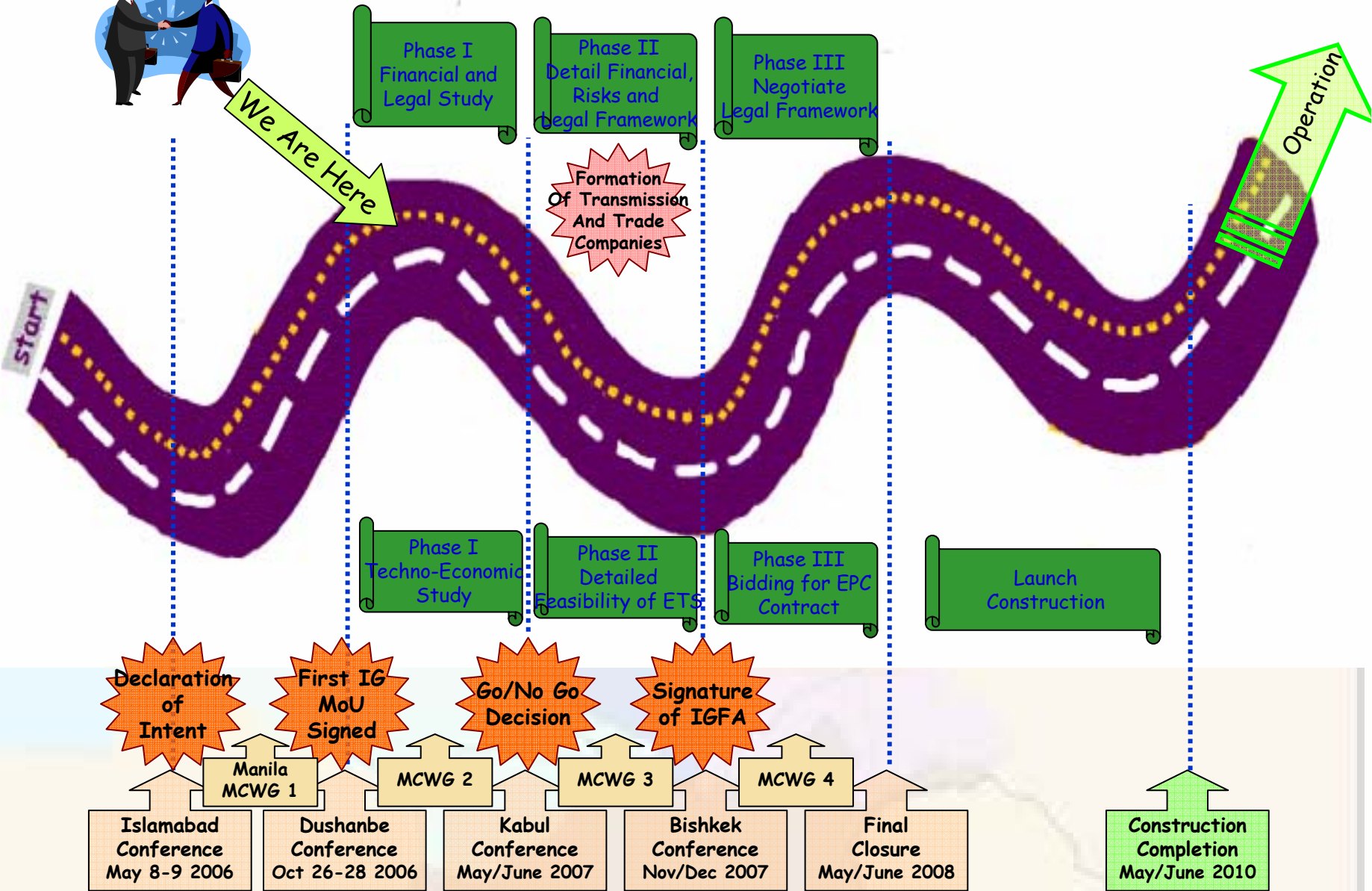
Interested Private Investors

# Multi-Country Working Group Support Structure

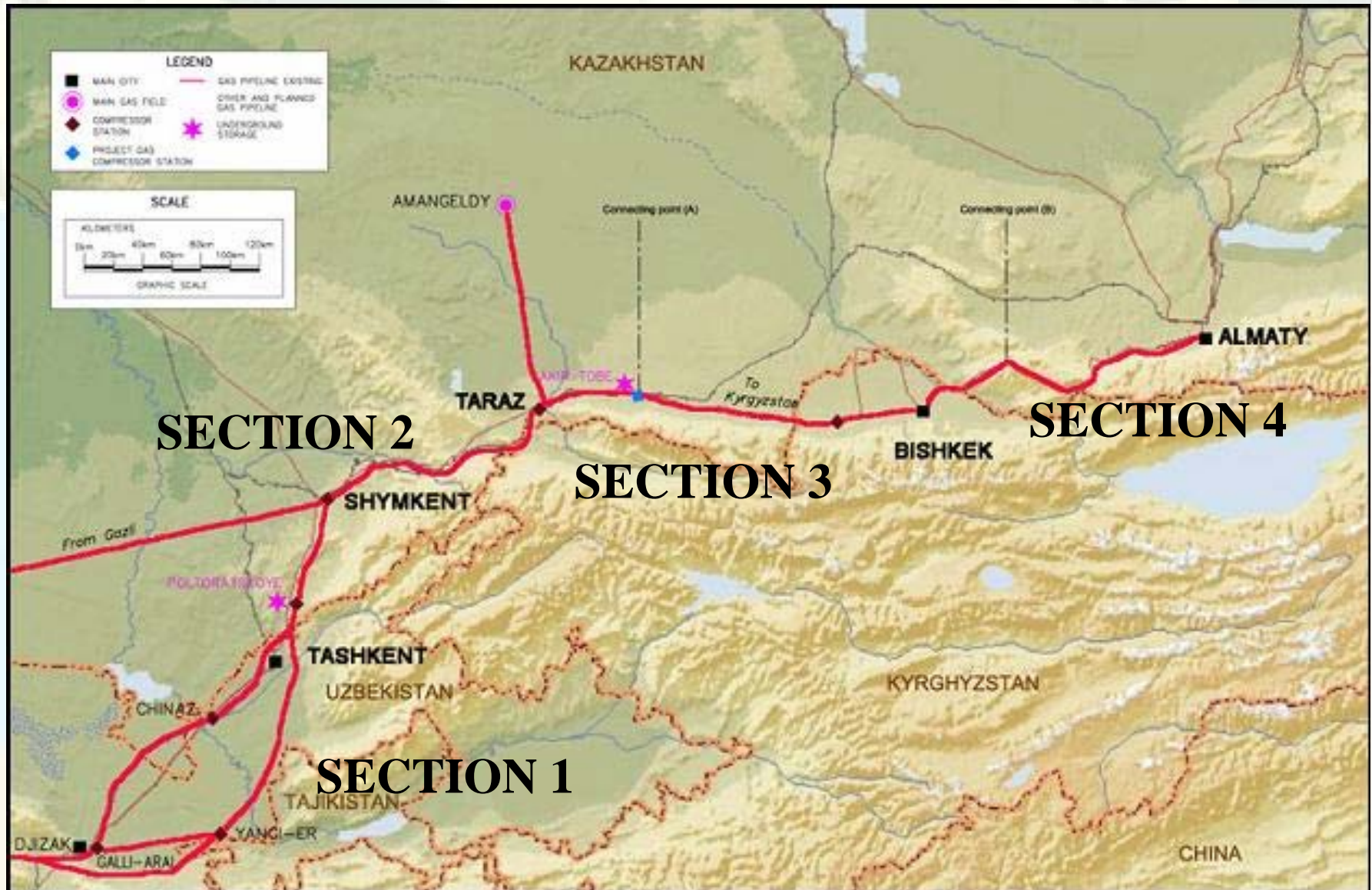




# CASAREM – Phase I Road Map (Electricity Trade System for 1000 MW Transfer)

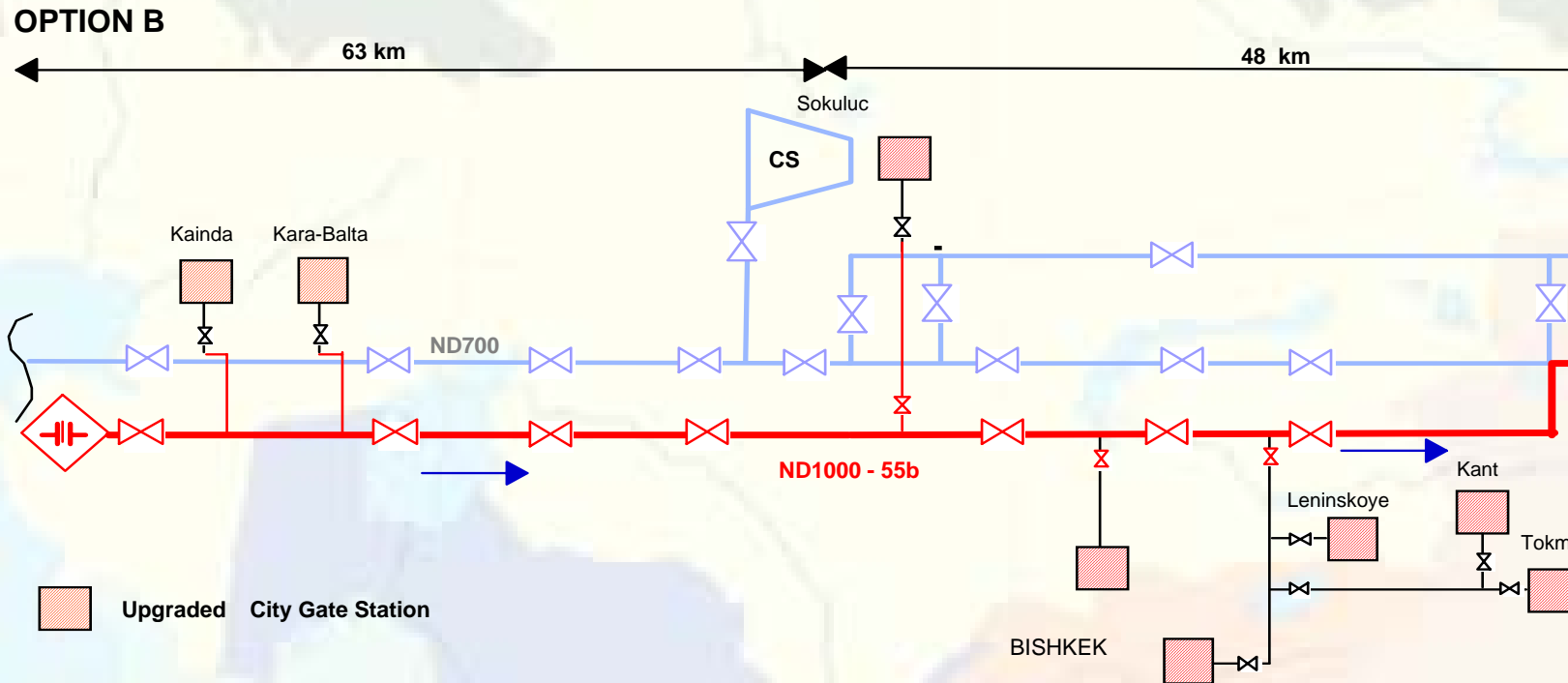


# Regional Gas Transmission Project





# Regional Gas Transmission Project

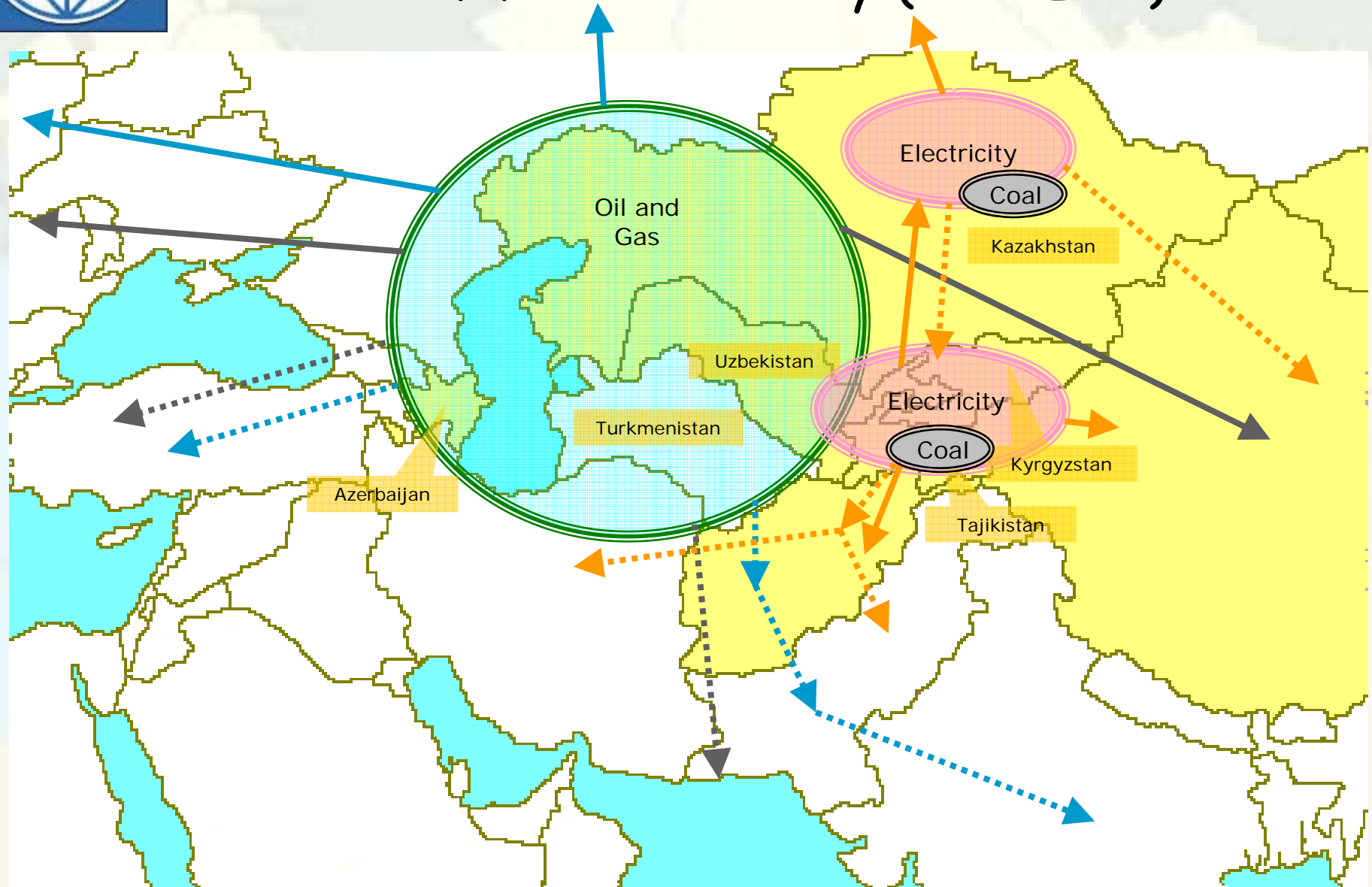


KyrgyzGas and KyrKazGas (a Kyrgyzgas and Kaztransgas JV) involved  
Decisions yet to be made:

- Projects costs
- Environmental and Social Assessment
- Financing structure - public/public-private/private
- Financing plan



# Options for Movement of Primary Energy Commodities Study (OMPECS)



## Options for Movement of Primary Energy Commodities Study (OMPECS)

- Country Consultations Begun
- Kazakhstan
  - KazMunaiGaz interested in Study
  - Government clearance yet to be received
  - Says coal exports need not be covered
- JBIC interested to participate
- More consultations are needed

# Energy Sector Strategic Action Plans

- World Bank:
  - provided guidelines and samples to each country to prepare their respective Strategic Action Plans
  - Followed up vigorously and rigorously to receive the Action Plans
- Received Information from:
  - Afghanistan; Azerbaijan; Kyrgyz Republic; Mongolia; Tajikistan
- Did not receive anything from:
  - PRC; Kazakhstan; Uzbekistan

## Broadening and Deepening Clean Development Mechanism Opportunities

- International Financial Institutions continue to develop programs
  - ADB
    - Carbon Market Initiative
      - Asia Pacific Carbon Fund
    - ADB Energy Efficiency Initiative
  - World Bank
    - Carbon Finance Workshops in Azerbaijan, Kyrgyz Republic and Uzbekistan
    - MoU signed with Government of Uzbekistan to develop Carbon finance projects
    - Carbon Expo Asia co-hosted in Beijing in Oct 2006

## CAREC Members Energy Regulators Forum (CMERF)

- Second Annual Meeting held in Sep 2006
  - Importance of CMERF emphasized
  - Additional Assistance sought from ADB for capacity building
  - ADB working on that request
- Third Annual Meeting planned in Mongolia in Sep 2007



THANK YOU !