

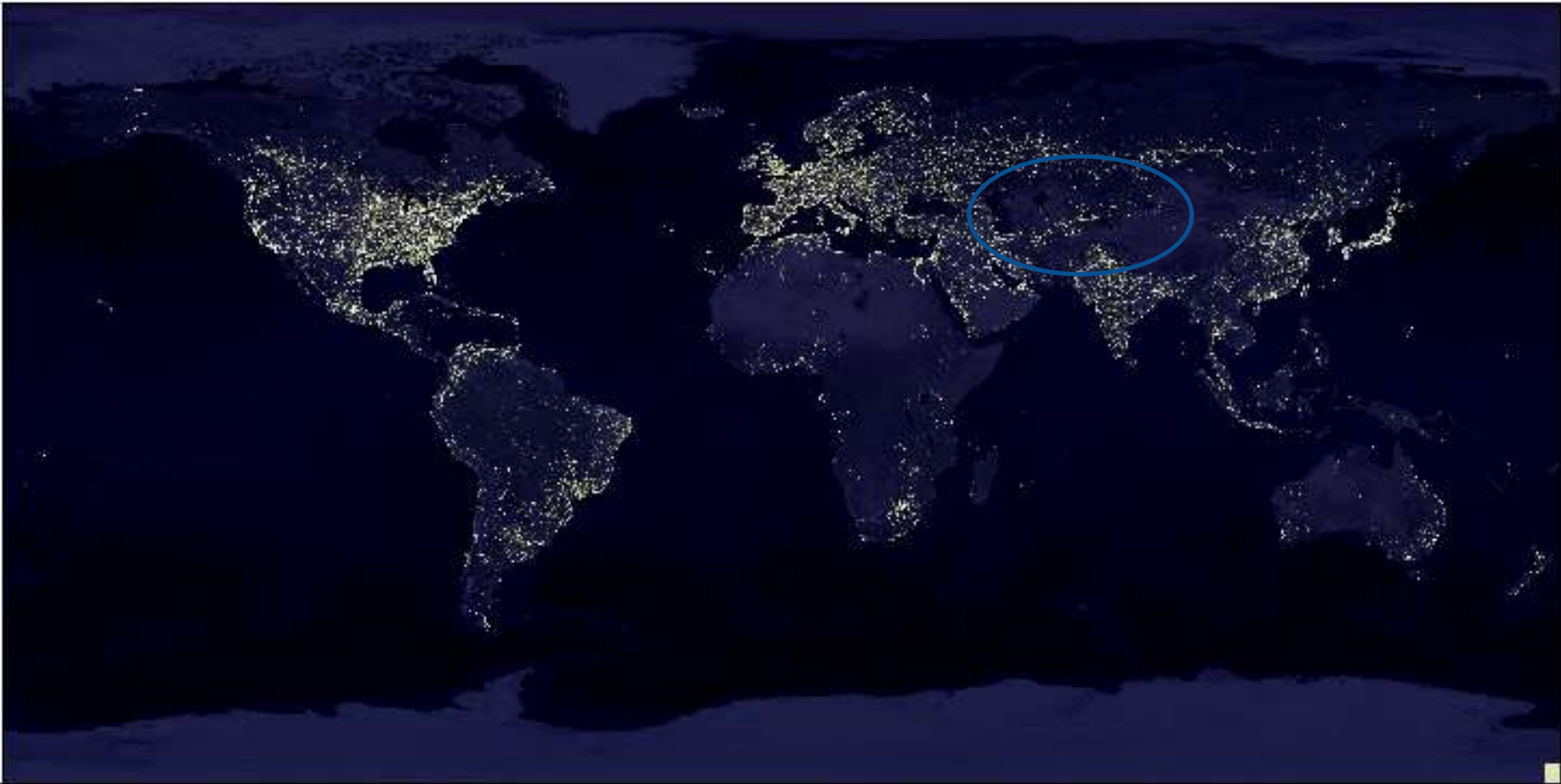
Energy Sector Coordinating Committee Updates

Senior Officials' Meeting
17-18 June 2015
Bangkok, Thailand

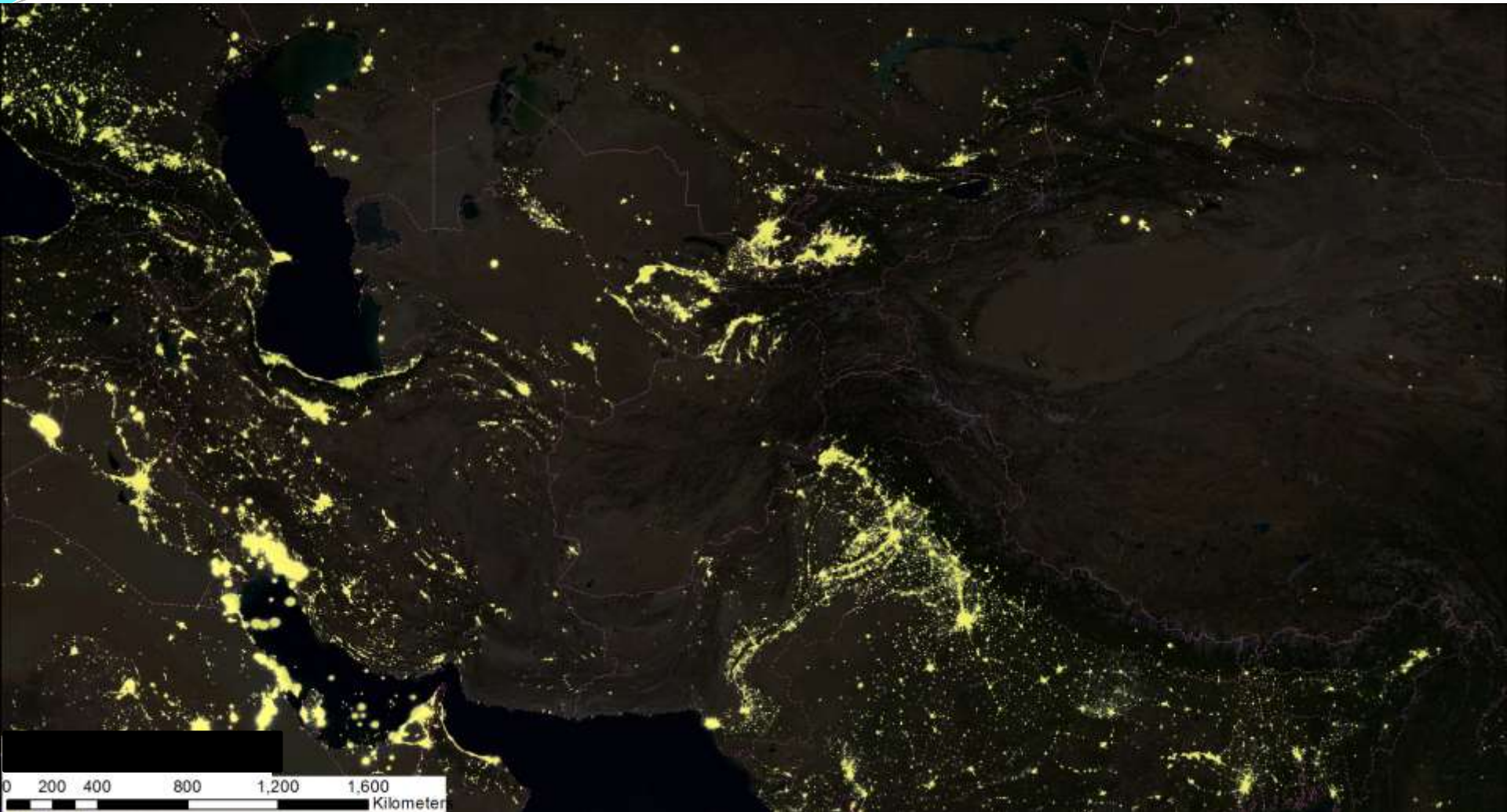
F. Cleo Kawawaki
Director
Energy Division, CWRD, ADB



Our World - 2014



Central Asia: 1992



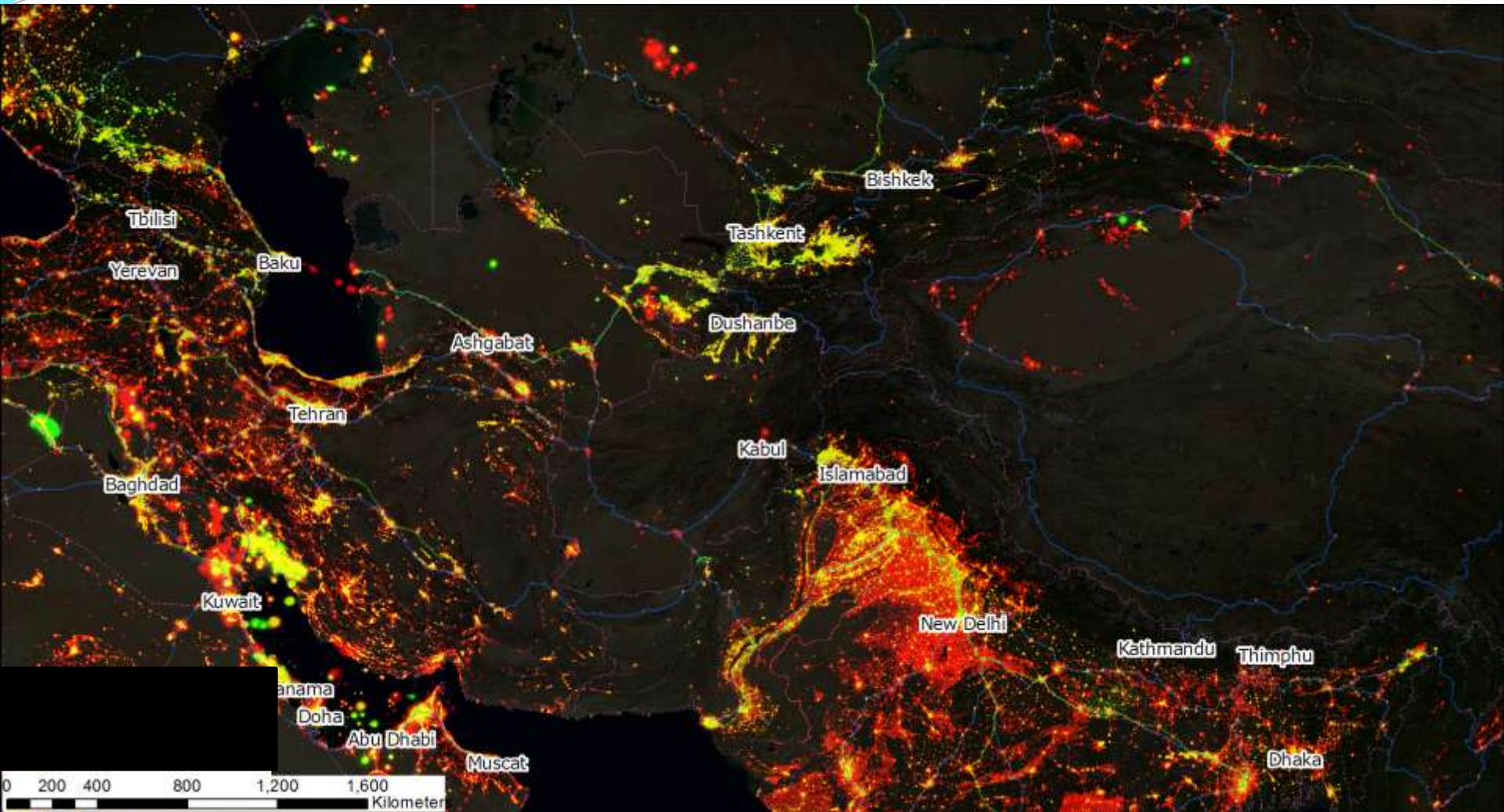
Central Asia: 1992



Central Asia: 2013



Central Asia: 1992-2013



Yellow indicates strong light in both of 1992 and 2013. Red indicates growth from 1992 to 2013.

Challenges

- Demand growing while supply shrinking
- Old infrastructure needs rehabilitation
- New infrastructure needed to support growth
- Large funding gap
- Increased External Fund needed to accelerate
- Increased Regional cooperation needed to maximize benefits



Strategies

How to accelerate and maximize benefits?

- **Develop and invest in** priority projects
- **Develop** capability and knowledge
- **Demonstrate** leap-frogging technology to lower cost
- **Establish** reliable Regulatory Framework and transparent decision making to attract external investment



Energy Sector Coordination



Energy Work Plan: PROJECTS

(2013-2015 updates)

Central Asia-South Asia Regional Electricity Market

- CASA 1000 and TUTAP are complementing projects, capable of delivering 1,000 MW to Pakistan from **Tajikistan and Kyrgyzstan**
- CASA 1000 provides an open access regime for export: **enables Afghanistan** transmission wheeling revenue from **300 MW export**
- TUTAP satisfies Afghan demand and enables an **export route for Turkmenistan, Uzbekistan, Tajikistan and the Kyrgyzstan**
- TUTAP demonstrated benefit of CASAREM saving about \$600 million per year for Afghanistan for investment of \$157 million (TAJ-AFG and UZB-AFG lines)

Next Steps: In 2015, ADB processing Phase II to increase transmission capacity between Turkmenistan and Afghanistan to 1000 MW

CASA-1000: Central Asia-South Asia Electricity Transmission and Trade Project (WB)

TUTAP: Turkmenistan-Uzbekistan-Tajikistan-Afghanistan-Pakistan Interconnection Project (ADB)

Energy Work Plan: STUDIES

(2013-2015 updates)

Studies for the Energy Sector

- ADB's [CAREC Power Sector Financing Roadmap](#) study will support financing of national and cross-border projects
- World Bank support for Kazakhstan led [Regional Power Trade Development in Central Asia](#) study will analyze power markets, pricing and tariff regulation mechanisms
- World Bank's [Energy Vulnerability to Climate Change](#) study will support climate change-induced vulnerabilities and coordinated policies for climate change adaptation

Energy Work Plan: KNOWLEDGE

(2016-2020)

Capacity Building and Knowledge Management

Four themes

Knowledge sharing: smart meters, project management, independent regulation, tariff policy, forecasting, planning and energy efficiency

Technology adoption: smart meters, solar power, battery based storage, electric vehicles, and energy efficiency

Regulatory issues: framework for independent regulation, tariff setting for time-of-use tariffs, pre-paid meters, IPP tariffs, and benchmarking

Training: demand management, forecasting, solar power, battery storage, energy efficiency, and management of large projects

Monitoring of Performance: Energy Sector Output Indicators

- Indicators to capture performance of completed projects' contribution to energy security, energy efficiency, and power trade

Indicator	2013 Baseline Value	2014	2015
Transmission lines installed or upgraded (km)	612		
Increased energy generation capacity (MW)	300		
Rehabilitated generation capacity (MW)	0		
New substations (MVA)	250		
Upgraded substations (MVA)	400		



* Following the 19th CAREC ESCC Meeting, member countries have been requested to provide their respective country data and project lists based on which the total target will be derived.

For Guidance by the SOM

Energy Work Plan 2016-2020

Goal: Accelerate Development of Sustainable Reliable Energy Sector in the Region

Five elements maintained:

- Developing the East-Central-South Asia Corridor
- Promoting Central Asia regional trade and dispatch
- Managing energy-water linkages
- Mobilizing financing for priority projects
- Capacity development and knowledge management

New element:

- **Promoting clean energy and energy efficiency technologies**

For Guidance by the SOM

Energy Strategy 2020

Focus:

- Formulate renewable energy and energy efficiency policies
- Invest in cross-border energy transmission
- Facilitate access/transit to third country energy markets
- Develop sustainable energy resources where possible
- Build capacity for energy trade, energy efficiency, new technology and tackling climate change