

# CAREC Energy Action Plan

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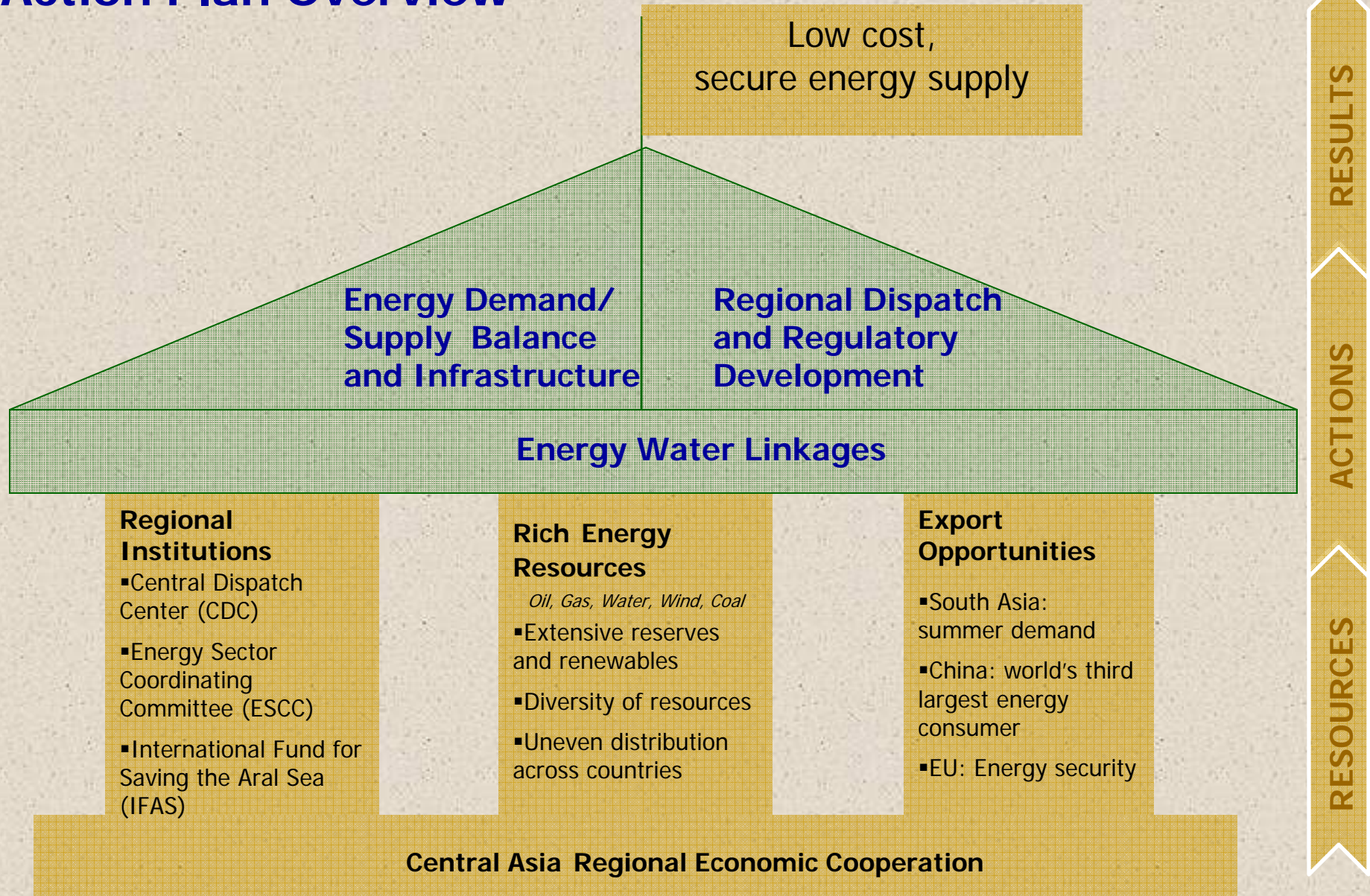
**8<sup>th</sup> CAREC Ministerial Conference**

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# Action Plan Overview



# Action Plan Builds from Energy Strategy

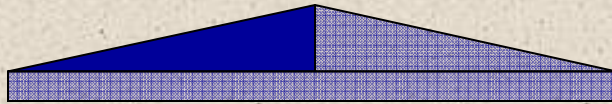
- **Long term vision**
  - Ensure energy security
  - Ensure economic growth through energy trade
- **Benefits of regional cooperation**
  - Least cost development, export earnings, transit revenues
- **Strategic elements**
  - Domestic and cross-border investments
  - Capacity Building and Knowledge Sharing
  - Policy measures
- **Progress monitoring**
  - Efficient development of resources
  - Agreements in water management, energy trade and transit
  - Volume of energy trade

# Focus on Urgent Issues

- Implementation Dimensions/Energy Corridors
  - i. Central Asia-China
  - ii. Central Asia-South Asia
  - iii. Cooperation opportunities within Central Asia
  - iv. Central Asia-Russia
  - v. Central Asia – EU
- Focus
  - Regional cooperation through efficient power development.
- Timeframe
  - Three years (2010-2013)
  - Achieve immediate gains
  - Identify and evaluate investments beyond 2013

## Principles

- Strong regional cooperation
- Linkages with other sectors
- Regional institutions
- Phased investments



# Three Strategic Themes (I)

## Energy Demand/Supply Balance

### Action Plan Objective

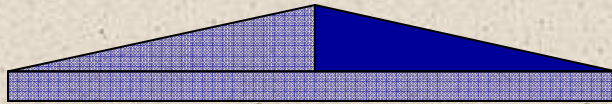
To promote regional trade by optimizing integrated transmission and generation expansion.

### Why

- Central Asia is rich in energy resources
- Winter deficits and summer surpluses
- The transmission system is not adequate

### How

<b>Investment</b>	Promote/accelerate early-win grid strengthening and generation programs
<b>Capacity Building &amp; Knowledge Sharing</b>	Involve national and regional organizations in developing generation and transmission investment plan
<b>Policy Measures</b>	Develop national and integrated regional generation and transmission development plans



## Three Strategic Themes (II)

### Regional Dispatch and Regulatory Development

#### Action Plan Objective

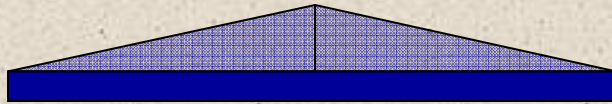
To maximize the benefits of unified operation of the Central Asia Power System.

#### Why

- **Substantial decline in regional energy trade**
- **Separate operation could not ensure reliable power supply**
- **Optimal utilization requires a strong dispatch and regulatory**

#### How

<b>Investment</b>	Phase investments to implement adequate SCADA, metering and communication systems
<b>Capacity Building &amp; Knowledge Sharing</b>	Strengthen CDC and national load dispatch centers and facilitate preparation of regulations
<b>Policy Measures</b>	Develop an institutional platform and framework for regional power trade based on economic principles.



## Three Strategic Themes (III)

### Energy-Water Linkages

#### Action Plan Objective

To strengthen cooperation by integrating energy and water analysis.

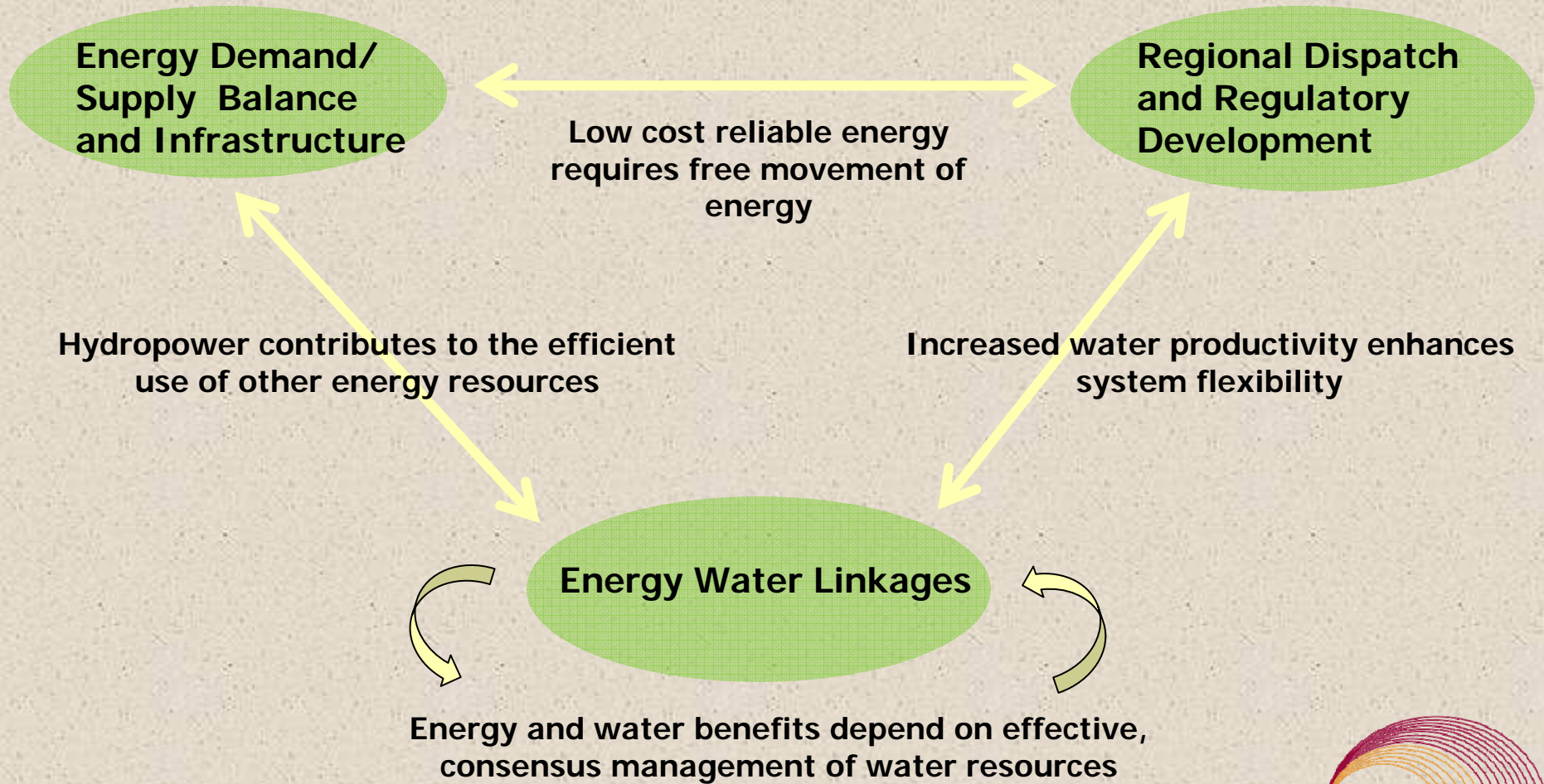
#### Why

- **Hydropower contributes to reliability, stability and affordability**
- **Transboundary water management**
- **Water Productivity**

#### How

<b>Investment</b>	Identify consensus projects to improve the rational and effective use of energy and water
<b>Capacity Building &amp; Knowledge Sharing</b>	Enhance integrated energy-water models, analytical tools, and shared databases
<b>Policy measures</b>	Strengthen Central Asian institutions to lead the dialogue and analysis on rational use of energy-water resources

# Strategic Themes Connected & Reinforcing





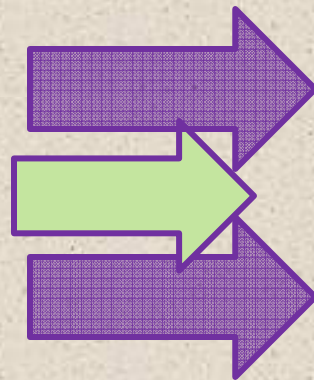
# Targeting Strategic Barriers to Regional Energy Prosperity

1. Infrastructure gaps in generation and transmission
2. Effective balance of national and regional mechanisms for regional operations
3. Lack of technical skills in cross-sectoral linkages
4. Inefficient resource use (energy and water)
5. Weak regional institutions

**2009**

## Lost opportunities

- Rising cost of energy
- Regional tensions
- Minimal export earnings
- Winter heat/power shortages



**2013**

## Growth and security

- ✓ Lower cost energy
- ✓ New trade relations
- ✓ More crop per drop
- ✓ More kilowatts per cubic meter
- ✓ Dialogue on joint investments