

Developing the CAREC Water Pillar



CAREC Institute Dialogue

“Sustainable Water Governance and Management in Central Asia in Times of Growing Climate Uncertainty”

10 February 2022

Kazuhiro Yoshida, Senior Water Resources Specialist

Malte Maass, Climate Change Specialist

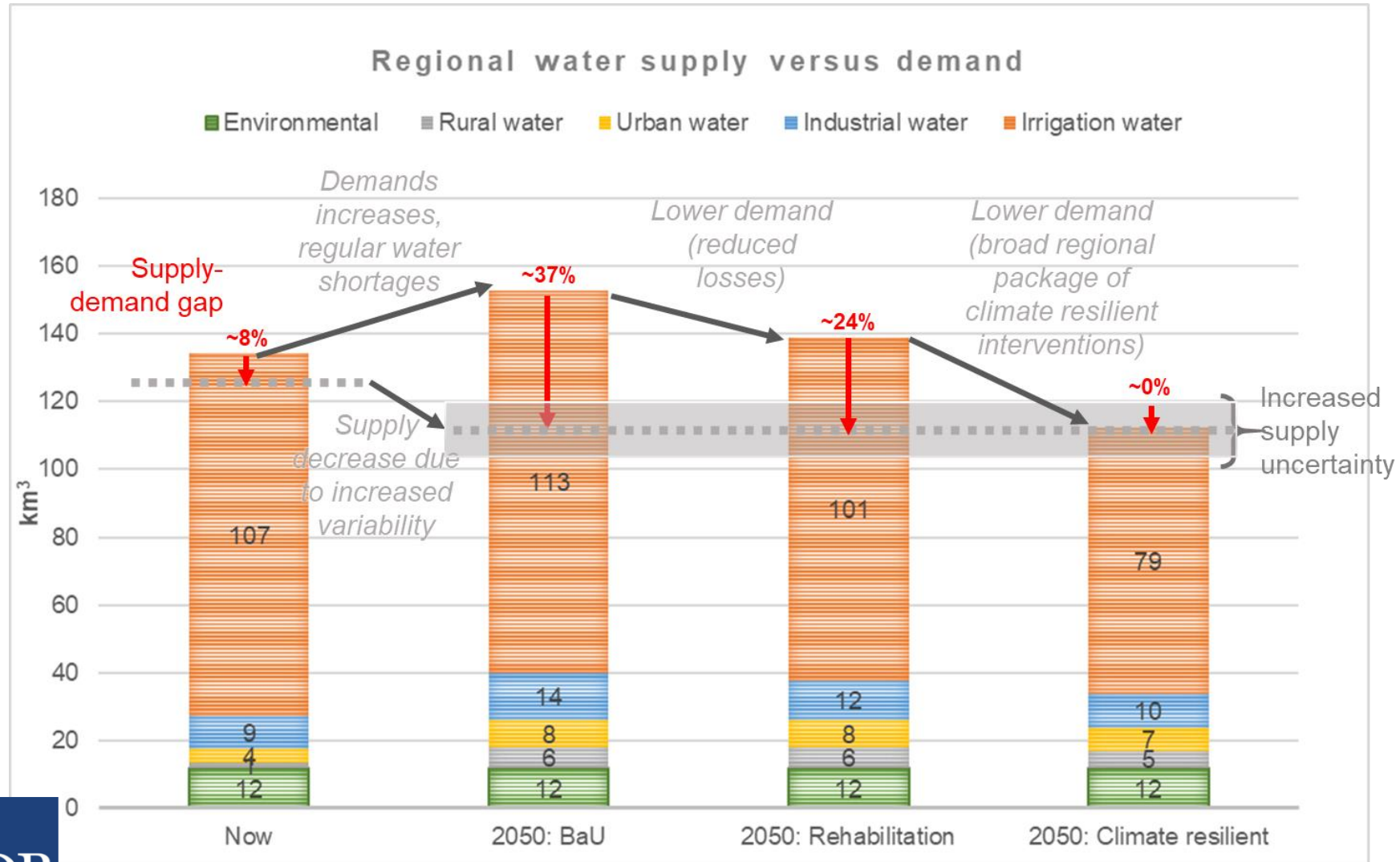
Jeremy Bird, TA consultants team leader

ADB TA 9977-REG: CAREC – Developing the Water Pillar





Water supply-demand scenarios



Policy challenges for water in Central Asia

- ❑ Reducing excessive demand for water and reducing waste and losses
- ❑ Discouraging use of water for low-value purposes and promoting more economically productive use of water
- ❑ Encouraging water savings, and enabling release of water for other beneficial use or for environmental needs
- ❑ Increasing cost recovery from water users for sustainable financing of water infrastructure and services
- ❑ Making water more attractive for private sector involvement including PPPs
- ❑ Policy coherence across sectors (e.g. agriculture, irrigation, energy, finance) with coordinated implementation from national to farm levels

SWOT analysis for water cooperation through CAREC

Strengths

- **Long history and high-level commitments to regional cooperation on water**
- **Strong national commitment to economic reforms**
- Rich endowment of land and water resources
- High human resource potential
- **Established CAREC cooperation platform**

Weaknesses

- **Limited skills in modern management approaches**
- **Sparse data collection and information sharing**
- **Degraded water infrastructure and low productivity**
- Degraded natural environment
- Low numbers of women in water management
- Outdated regional agreements

Opportunities

- Improvements in geopolitical relations
- Global emphasis on climate adaptation, including funding for resilience and green economy projects
- **Complementary water-energy benefits from regional inter-connection**
- **Potential markets for high value agriculture**
- **Potential for improved productivity and management by adopting of modern technology**
- Potential for new renewable energy sources

Threats

- Climate impacts are more extreme for some countries than others
- **Increasing demand for water constrains regional cooperation and water for the environment**
- Water quality deteriorates as economies grow
- **Institutional barriers to cross-sectoral coordination**
- Mistrust and lack of confidence in finding mutually beneficial solutions

Game changers – exploring future scenarios

Climate change impacts:

Increased uncertainty and variable flow regimes **necessitate cooperation in the forecasting and allocation of water resources**

Technological advances:

New technology including remote sensing and modern irrigation brings potential for **more productive use of water and wider access to information**

Agriculture liberalization:

More secure land tenure combined with high value agriculture and more commercial production methods offer **potential to reduce water demand**

Regional electricity interconnection:

Integration with South Asia electricity market leads to **closer alignment of peak demand for hydropower generation with downstream irrigation needs**

Transition to intermittent renewables:

Operation of upstream hydropower for grid stability to balance solar and wind production leads to more variable flow regimes downstream **requiring improved cross-sector dialogue**

Higher standard of living:

Raises expectations for service delivery performance and quality of life, including an improved environment

Selected activities proposed for the Water Pillar

CAREC Water Pillar

BLOCK 1

Climate resilient and productive water systems

Strengthen regional information systems to manage uncertainty

Build resilience and raise productivity thru' modern irrigation

Support capacity for climate adaptation and disaster risk management

Transition to self-financed water services

BLOCK 2

Sustainable water resources and water services

Catalyze performance gains through the private sector

BLOCK 3

Nexus solutions and cross sector learning

Integrated water-energy planning and solutions

Encourage co-ownership of multipurpose water infrastructure

Build capacity for integrated training and applied research

Build towards a healthy environment

From 'scoping' to 'implementation' and 'expansion' - the CAREC Water Pillar

