Financing infrastructure in Central Asia: the water sector

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Background and Rationale

- **Water:**
  - Key driver of socio-economic development in Central Asia
  - Precious, limited and non-renewable resource
  - Access to water resources is a key economic, social and political priority of each riparian state
  - Business as usual scenario will lead to increased competition for water resources at all levels of water systems
  - Critical element to enhance and limit economic development in the region

- Annual **total water resources-** 116 cubic km and 90% from Amu Darya and Syr Darya

- Impact of **climate change**:

  - Water shortages, equalling 8-10% of current water uses
  - Per capita water availability in the region will drop from 2500 cubic meters/per capita per annum to 1400 cubic meters/per capita per annum.

- **Sustainable and effective water systems** = Improved water infrastructure

Background and Rationale

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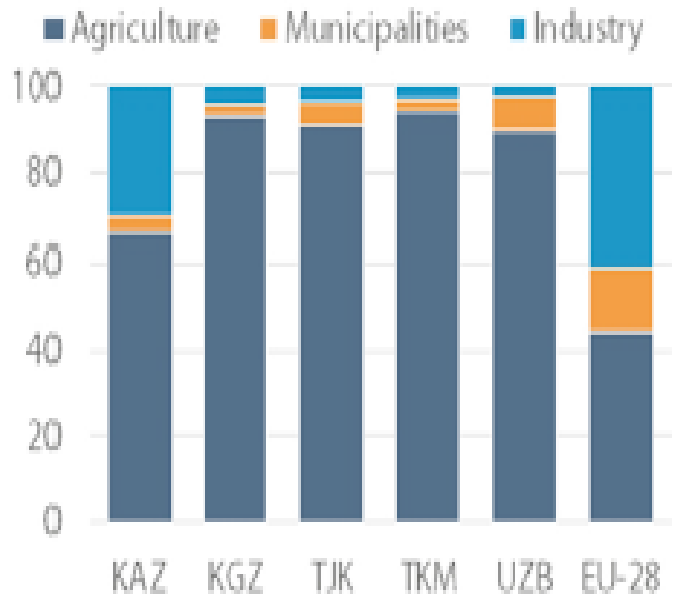
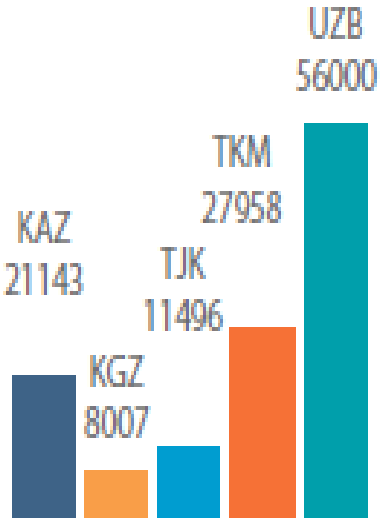
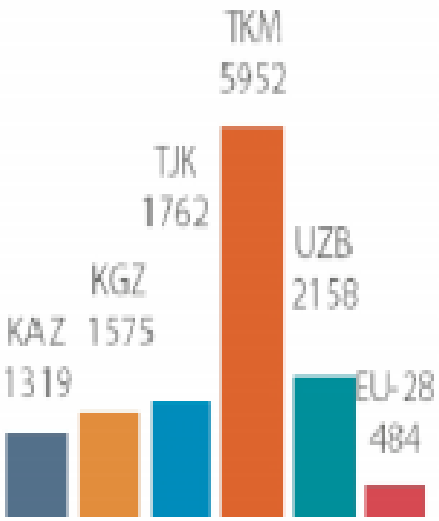
Water use by sector, % of total use



Total water use, million m³/year



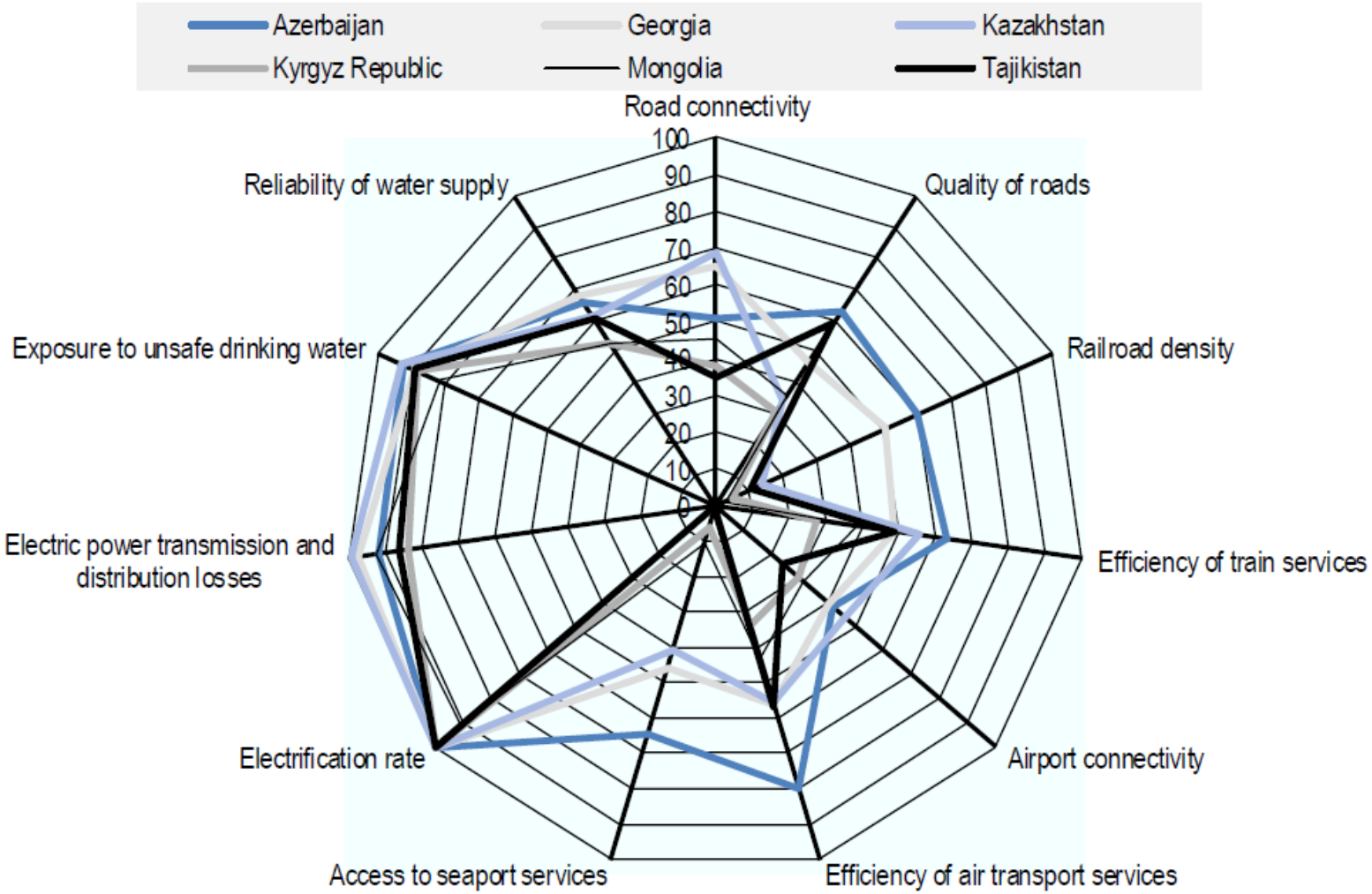
Total per capita water use, m³/year



Infrastructure Financing in Central Asia

- **Demand** for infrastructure investment - 5-7% of GDP per annum
- Infrastructure **investment "hunger":**
  - Economic growth: limited due to infrastructure bottlenecks
  - High public debt levels, equaling >40% of GDP in average
- **Major area**s of infrastructure investments:
  - Transport- 44%, power generation- 38% and water-sanitation – 6%
- Infrastructure investment needs are **emerging:**
  - Rehabilitation or extension of existing/outdated
  - New infrastructure development

Quality of Infrastructure in selected countries Central Asia and Caucasus

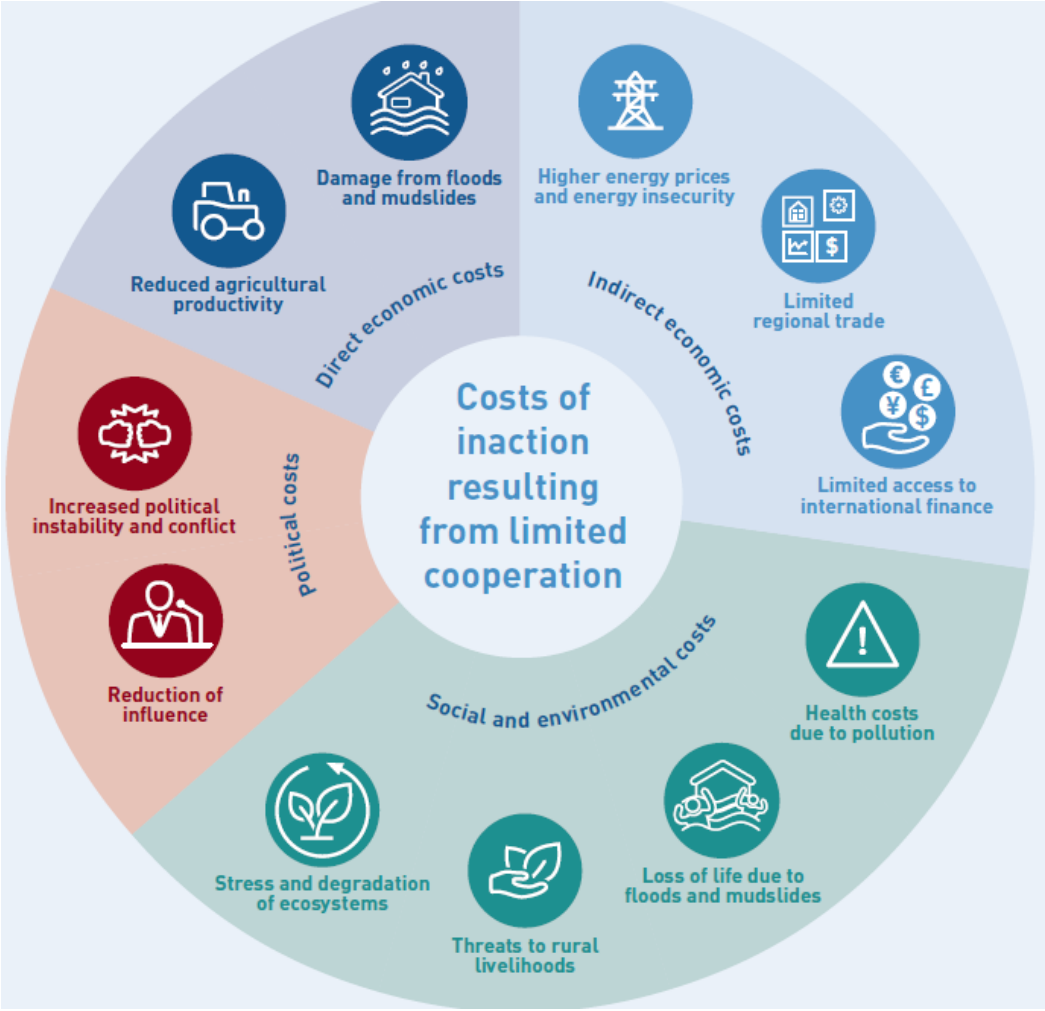


OECD 2019

Water Sector Financing: current situation

- **Water sector is state funded** and operated by state or semi-state organizations
- Currently states are unable to fund fully - **infrastructure, human, transport and technological needs are inadequately funded**
- Delayed investments in the water sector - **water infrastructure in inadequate conditions**
- Shrinking and insufficient financing - serious **delays in O&M**
- Central Asia's need for investments to rehabilitate and build new infrastructure (including water infrastructure) is around 6-**8% of GDP annually or $33-38 billion per annum.**

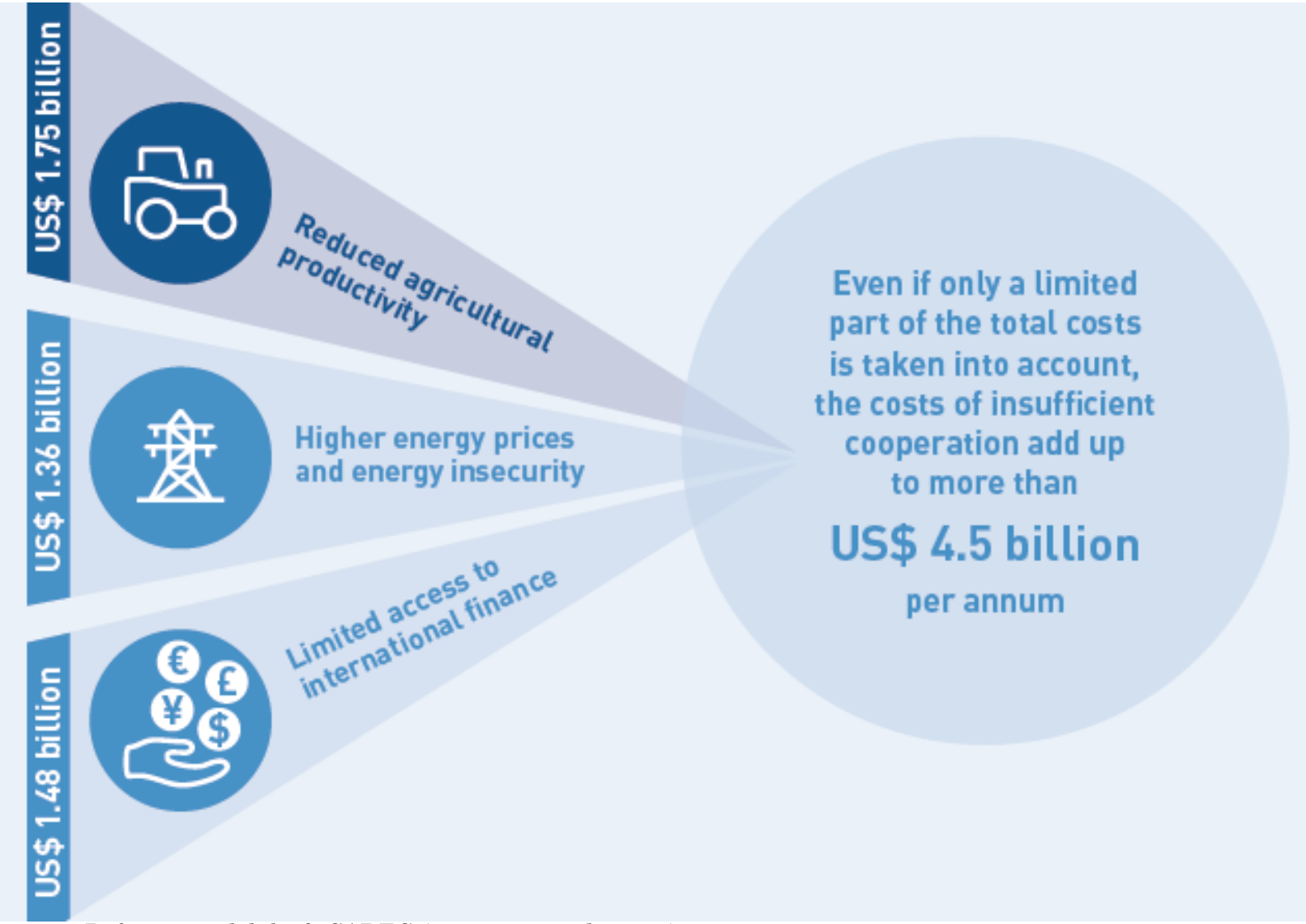
Water sector in Central Asia



Reference: adelphi & CAREC (environmental centre) report, 2017.

- Due to deteriorating infrastructure, these costs will inevitably increase if (transboundary) water management remains unchanged;
- Limited cooperation is limiting access to international finance as well that could benefit transboundary water infrastructure.

Water sector in Central Asia



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Water sector financing in Central Asia

State budget covers up to 50% required funding

+

Private investment - 0

→

A minimum of USD 20-25 billion is required to upgrade water infrastructure in Central Asia (World Bank, 2018).

Water sector financing in Central Asia

- Agriculture land and water reforms in Central Asia -**unfinished business**
- High level of **regulations in agriculture** production systems, land ownership
- Role of state in **social stabilization**: providing food, water security to the population.
- **Downside**- tightly regulated system = reduced incentive for private financing for the sector, especially infrastructure.

Policy Recommendations

- Introducing **public-private partnership** schemes into the irrigation services. Water service delivery and O&M functions to private companies. This can trigger the intensive use of technology in the sector.
- **Political commitment & enabling legislation** – a state guarantee at the policy level for involving the private sector. Without stable investment climate and business opportunities, the private sector will be reluctant to mobilize resources.
- **Improving governance and efficiency.** This increases the rationality and benefit of every dollar invested, which improves eventually credit worthiness of the sector.
- **Expertise.** State as a regulator and business as investor must have necessary financial, legal and technical skills to deal with process.

Policy Recommendations

- **Reforms of agriculture policies** = more of market oriented, de-regulated policies -generate interested to invest in the water services
- Setting up more of **multi-purpose water schemes** in the irrigated areas. The concessions of infrastructure and land around the irrigation infrastructure, renting out facilities to private uses will bring more finances to the water sector.
- Setting up **water-energy consortium** for the *Syr Daraya* and *Amu Darya*. Joint financing and operation of transboundary infrastructure, benefit sharing schemes;
- **Economic frameworks** to promote cooperation and integrated planning among sectors – promote nexus approach.

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