



21st Session of the Working Group on Water, Energy and Environment

United Nations Special Programme for the Economies of Central Asia

14 June 2017, Astana



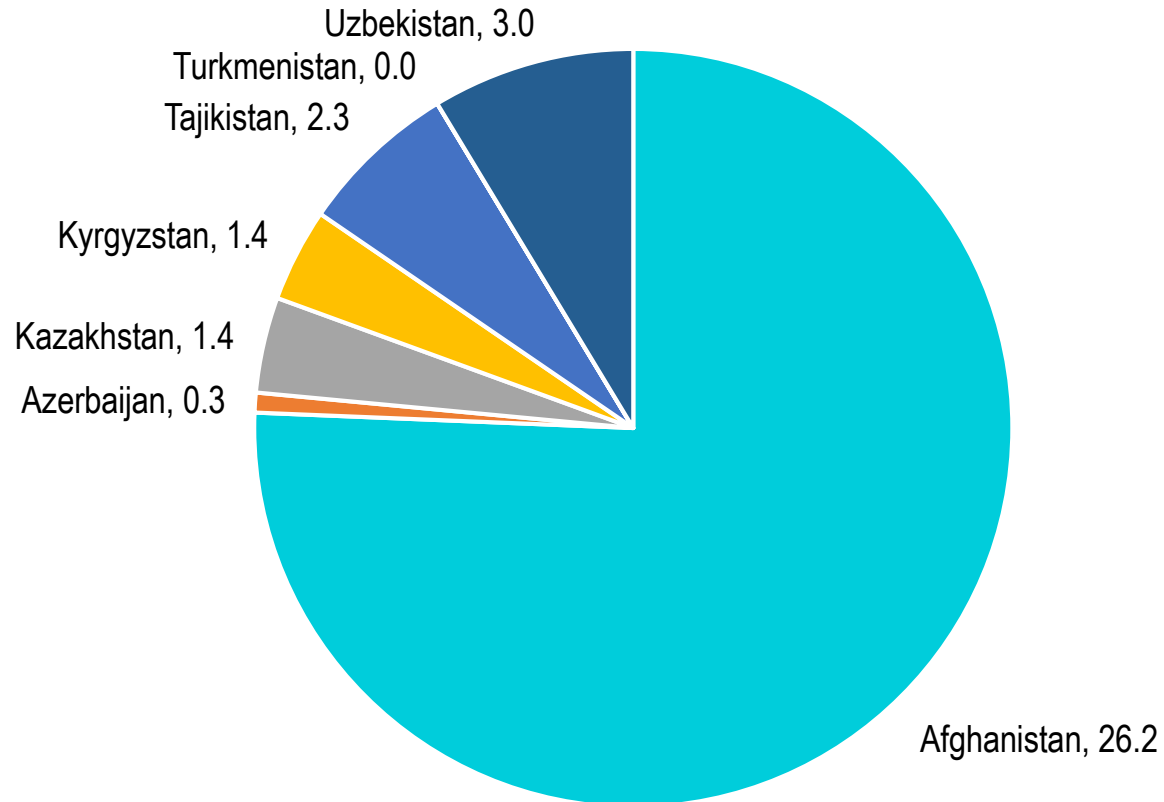
Access to Clean Cooking Fuels

GTF Indicator

ENERGY



2014 SPECA Population without Access to Clean Cooking
(millions)



Energy Services

Beyond Physical Access



ENERGY

SE4ALL

100%

Access to electricity

Indicators :

Btw. 17.3-100% Access to clean cooking fuels

Access Realities

- 34.6 million people without access to clean cooking fuels (mainly Afghanistan)
- 3.3 million without electricity (mainly Afghan.)
- Much infrastructure is now old and requires substantial renewal and redevelopment to improve reliability and quality of supply. Power shortages in winter months.
- Some countries face limited power supply, outages: despite reported universal access
- Countries face problems of affordability, quality of access, and quality of service
- Significant challenge to upgrade, renew older un-insulated housing stock, with locked-in fossil fuel dependence

Energy Poverty

- In all countries, low-income households make tradeoffs between heat, food, or other needs
- Measurable proportion of households spend more than 10% of income on energy
- Addressing GHG emissions without energy efficiency could worsen energy poverty
- Human comfort and safety depends on substantial heat services

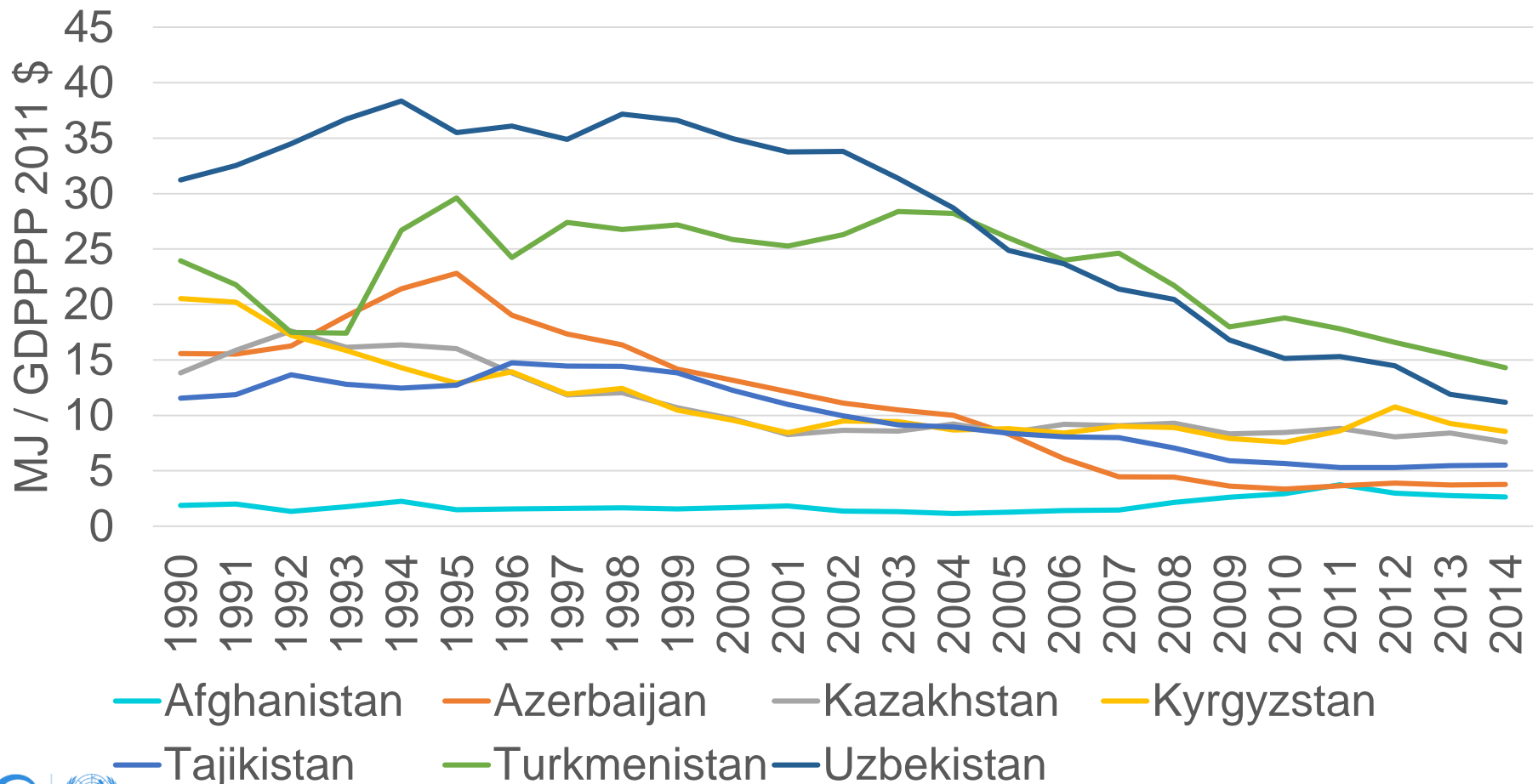
Energy Intensity

GTF Indicator

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Energy Intensity among SPECA Members 1990-2014



Energy Efficiency

Demand and Supply Side Perspectives

ENERGY



SE4ALL Indicators: Btw. 2.6 – 14.3 MJ/USD in 2014 (2011ppp)

Highlights & Drivers

- Uzbekistan and Turkmenistan improved energy intensity levels significantly from 31 & 24 MJ/USD (1990) to 14 & 11 MJ/USD (2014)
- Following the dissolution of the Soviet Union, the subregion experienced a steep decline in energy intensity, which has continued.
- Limited policy action, monitoring and evaluation, and data and compliance, coupled with energy price subsidies, slowed gains after 1998.

Challenges

- Underdeveloped policy frameworks, standards, and regulations, as well as high industrial intensity, suggest that much potential exists for further efficiency gains.
- Building energy efficiency is slow
- Largely untapped industry energy management productivity potential.

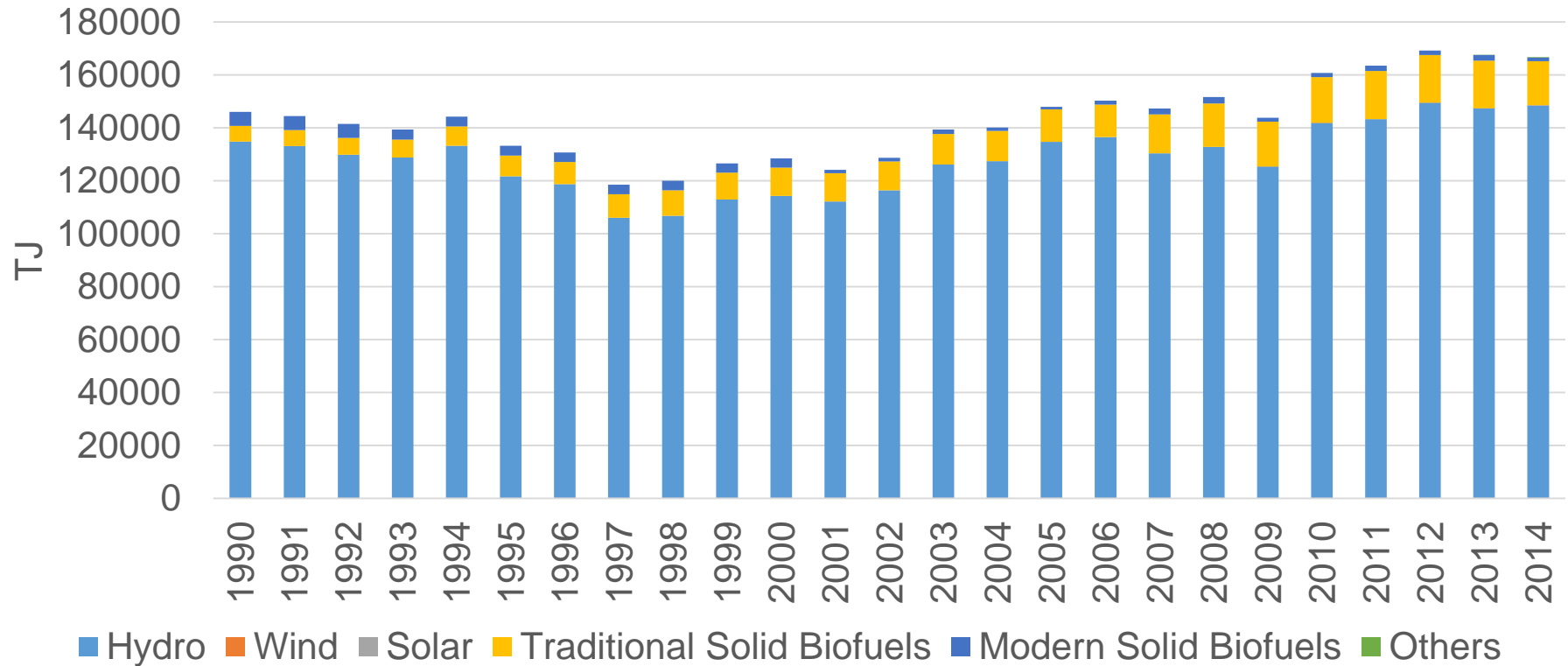
Share of Renewable Energies

GTF Indicators

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SPECA Renewable Energy Consumption 1990-2014



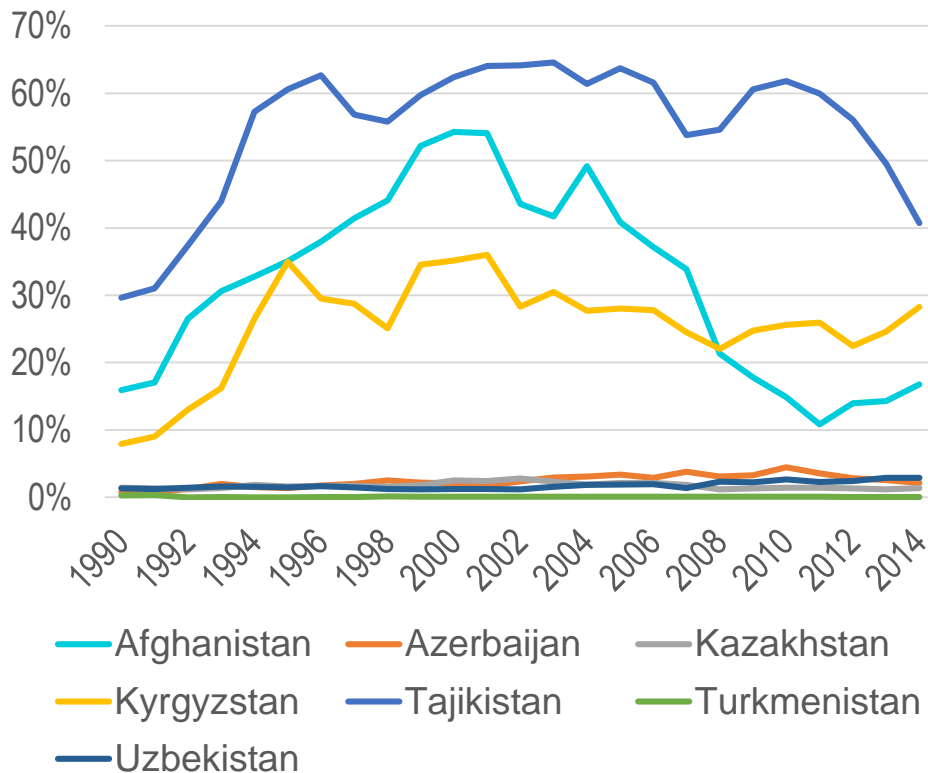
Energy Services

Beyond Physical Access

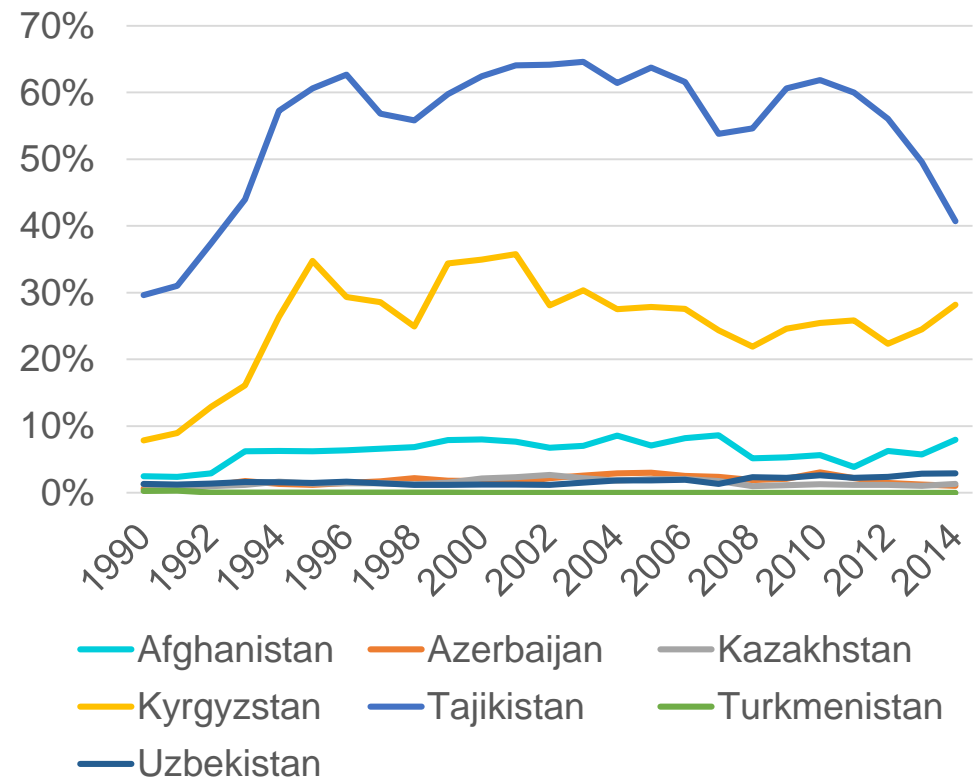
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Share of Renewable Energy among SPECA Countries 1990-2014



Share of Modern Renewable Energy among SPECA Countries 1990-2014



Renewable Energy

Diversification and Integration challenges



ENERGY

SE4ALL Indicators: Share RE in TFEC: Ranges btw. 0 - 41% (2014)

Highlights and drivers

- Unlike other regions, little diversification of RE supply by technologies (e.g. variable renewables)
- Since 2010: Tajikistan share is falling due to higher fossil fuels output (mainly oil and coal)
- Some pilots of other RE sources in the power sector.
- Slow pace of increase, as subsidies for conventional energy have constrained investment.
- Renewable energy spending has focused largely on hydropower

Outlook

- Large potential for variable and baseload RE
- Opportunities for decentralized RE
- Traditional wood stoves offer efficient low-cost RE

Conclusions and Recommendations for Future Sustainable Energy Progress Tracking



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Broader set of indicators required / Review of existing indicators

- Fossil fuels related aspects (share of FF in TPES, generation efficiency, etc.)
- Climate aspects such as climate intensity of the energy sector
- Nexus considerations such as for the energy-water-food nexus
- Quality of life
- Renewable Energy: Share of RE in TFEC versus Share of RE in TPES, Investments into RE
- Move beyond physical access to quality of access, including affordability

Outlook

- Forthcoming GTF reports will incorporate multi-tiered access levels assessing access from quality, quantity, affordability, reliability aspects.



Thank you!

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