2018 Seminar on Water Resources Management & Small Hydropower Development for Countries along the Belt and Road UZBEKISTAN

Country report

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#### **Presentation summary**

- Overview of the country
- Condition of water recourses
- General condition of energy
- Renewable energy in country
- Future developing programs hydropower for 2017-2025 years

#### Uzbekistan in world map





#### **Geographical location and borders**

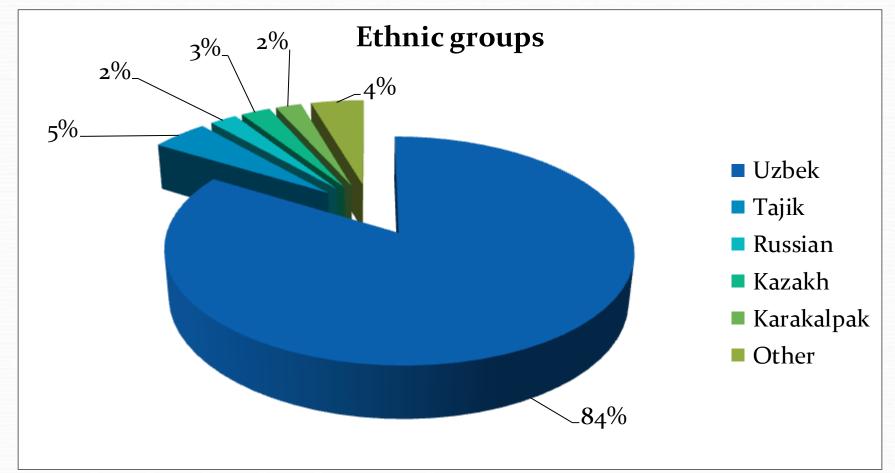
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## **Basic facts**

- Full name: Republic of Uzbekistan
- Area: 447 400 км<sup>2</sup>
- Population: 32 979 000 (2017 year)
- Capital: Tashkent
- Official language : Uzbek
- Large cities: Tashkent, Samarkand, Fergana, Bukhara, Andijan, Nukus.
- Currency Uzbekistan so'm (UZS)
- Religion: Islam.

## Population 32 979 000 (2017)



## Flag & Emblem





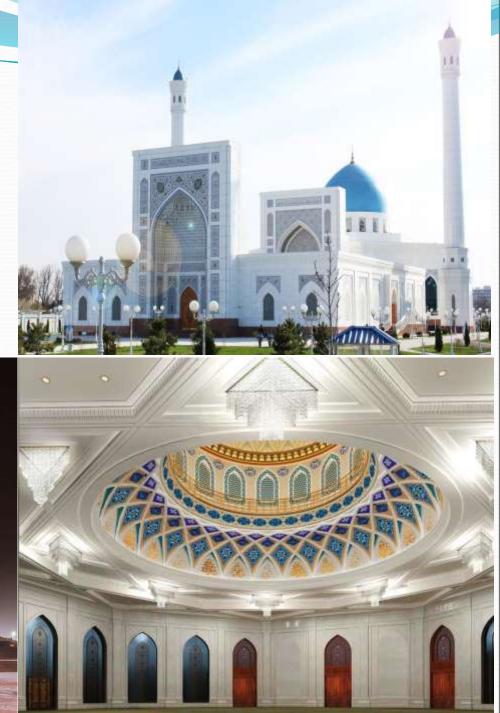


## Economy

 Uzbekistan ranks 11th in the world in natural gas production, third in the world in exports and sixth in cotton production, seventh in the world in uranium reserves (4% of the world's uranium reserves), and fourth in the world in total gold reserves, and seventh in gold production.

# Sightseeings of Uzbekistan











## Largest rivers are:

• There are 6,500 rivers with a total length of 2,800 km.

- Syrdarya river,
- Amudarya river,
- Surkhandarya river,
- Zarafshan river,
- Kashkadarya river.

#### Largest rivers are



http://www.flickr.com/photos/zoienvironment/7525832184/in/photostream

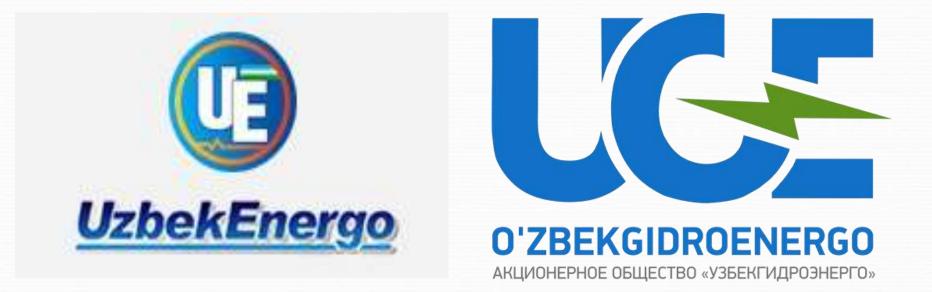






# **Energy organizations**

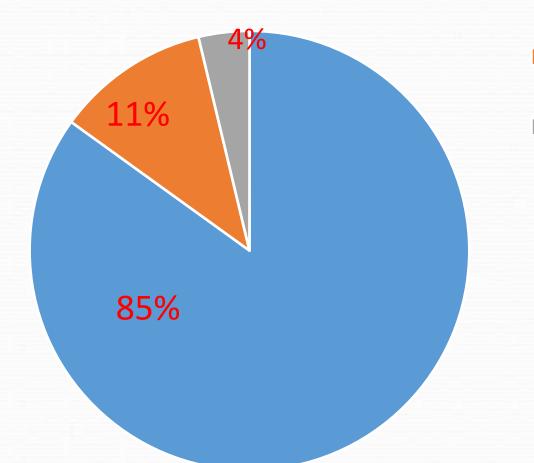
#### JSC "Uzbekenergo" JSC "Uzbekgidroenergo"



# **Electroenergetics**

- Power industry is one of the main branches of energy in Uzbekistan. The installed capacity of power plants in Uzbekistan exceeds **12.5 GW** (2014y).
- The installed capacity of power plants is sufficient to meet the growing demand for electricity of the Republic, to fulfill the obligations for the supply of electricity for export and to maintain the energy security of the country. The basis of the energy system of Uzbekistan are thermal station.

## **Total capacity of power stations**



- Thermal station 10619 MW
- Hedroelectric stations 1 415 MW
- Others 466

## Thermal power plants

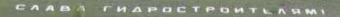
- All thermal power plants of Uzbekistan are owned by the state **JSC ''Uzbekenergo''.**
- A number of thermal power plants 10
- Installed capacity more than 1 250 MW
- Generated 53.07 billion kW, (2017 y.).
- Syrdarya thermal power station 3050 MW
- Tashkent thermal power station 2230 MW
- Novo-Angren thermal power station 2100 MW
- Talimarjan thermal power station 1700 MW

# Renewable Energy

- A number of hydroelectric stations 37
- Installed capacity 1 854 MW (01.01.2018y.).
- Generated 7.93 billion kW, (2017 y.).
- All hydroelectric power stations of Uzbekistan are owned by the state **JSC ''Uzbekgidroenergo''.**







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## **Solar power**



• On April 8, 2015, a test solar photovoltaic plant with a capacity of 130 kW was commissioned in the Pap region of Namangan region of Uzbekistan.





## Wind power plant

#### • Installed capacity – 750 kW (2017 y.).



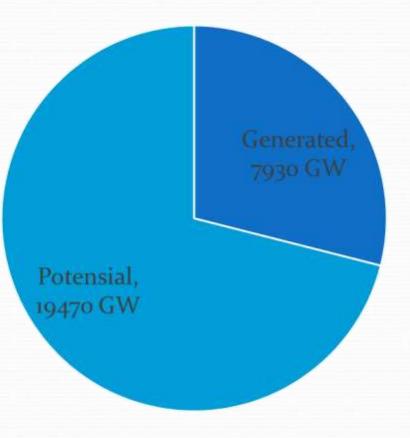
# Condition of hydropower in

## country

- Technically feasible hydropower potential of the Republic of Uzbekistan is estimated at approximately \$ 27.4 billion kw of electricity per year.
- The optimal proportions in the energy structure are considered to be the ratio of the production of thermal and hydraulic stations, respectively 65% and 35%, while in the power system of Uzbekistan in 2017 amounted to 87% and 13% and depends on the water content of the year.

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1	The number of HPP	37
	-more than 30 MW	10
	-less than 30 MW	27
2	Capacity MW	1854 MW
	-more than 30 MW	1576 MW
	-less than 30 MW	278 MW
3	Generation	7, 93 billion kW
	-more than 30 MW	6.84 billion kW
	-less than 30 MW	1.09 billion kW

## POTENTIAL 27 400 GW



 In order to fulfill the tasks given by President Shavkat Mirziyoyev during his visit to Jizzakh region on March 30-31, the construction of a micro hydroelectric power station at the Zaamin reservoir in the Zaamin district of Jizzakh region is being actively carried out. Measures are being taken for the qualitative construction of this facility and its commissioning in the scheduled time. The company" Dongfang Electric international **Corporation** " of the people's Republic of China signed contracts on the supply of equipment for 4 micro-power plants for 2 projects to be implemented in the Zaamin region on the Zaamin reservoir and the channel flowing from the Zaamin reservoir. The total cost of the projects is 312.0 thousand dollars. The equipment is supplied by Dongfang Electric International Corporation.



# Thank you for attention!