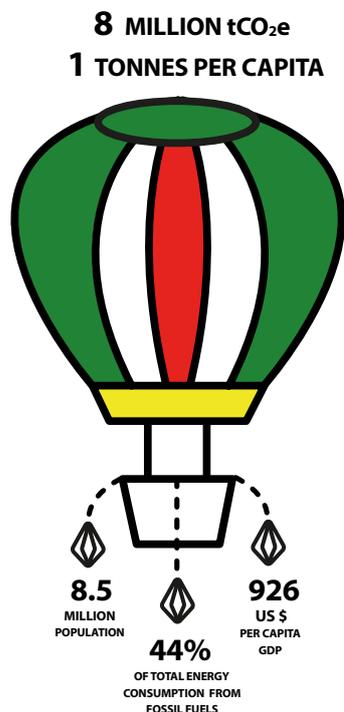


# TAJIKISTAN

## CLIMATE FACTS AND POLICY

### POLICIES AND PROCESSES



Sources: 2010 national GHG inventory data submitted to UNFCCC; latest population, energy and economic data from the World Development Indicators of the World Bank <http://data.worldbank.org/indicator>

#### Policy framework

National climate change action plan (2003, requires update)  
National climate change and health strategy (2011)  
National adaptation strategy 2016-2030 (pending approval)  
National strategies and programmes on glaciers, energy efficiency, small-scale hydropower, disaster risk reduction, forests  
Limited consideration of climate change concerns in legislation and sub-laws

#### 2030 targets and INDC

##### Mitigation

Base year and GHG emissions level: 1990, 25.5 million tonnes  
Unconditional target 2030: not to exceed 80-90 per cent of 1990 level, 1.7-2.2 tCO<sub>2</sub>e per capita  
Conditional target 2030: not to exceed 65-75 per cent of 1990 level, 1.2-1.7 tCO<sub>2</sub>e per capita

##### Adaptation priorities

Agriculture, irrigation and water systems  
Power engineering and industrial facilities  
Transport and residential infrastructure  
Economy-wide climate resilience and disaster risk reduction  
Adaptation of globally significant biodiversity to climate change  
Monitoring and conservation of glaciers and water resources  
Occupational safety, maternity and childhood protection in a warming climate

#### GHG inventory of all sectors and gases

Third national communication to UNFCCC  
Fourth national communication to UNFCCC under preparation (UNDP-GEF)  
First biennial update report to UNFCCC under preparation (UNDP-GEF)  
GHG emissions from coal power, cement production and agriculture expected to grow  
No advanced MRV and GHG scenario modelling established yet

### CLIMATE ACTIONS

#### Low overall and per capita GHG emissions

Strong decline in the energy-use sector, growth in the share of non-CO<sub>2</sub> emissions  
Plans for large and small hydropower and coal-power development  
Significant role of land use and forests in GHG balance

#### Considerable action on adaptation

Major international investments to agriculture, climate resiliency of hydropower and disaster risk reduction

#### Regional actions

Promoter of global and regional freshwater initiatives  
Environment, climate change and hydrology cooperation with Afghanistan

### CLIMATE FINANCE

#### Limited national resources

Sufficient for soft measures (legal, institutional) but inadequate for tangible action

#### Significant role of international climate investments

Focus on climate adaptation and risk management, reliable power supply, and rural energy access  
US \$150-200 million in loans and grants for climate-relevant actions

#### Pilot Program on Climate Resilience

Climate resilience of the energy sector, institutional capacity-building, hydrometeorological services, rural livelihoods

#### EBRD and EIB funding

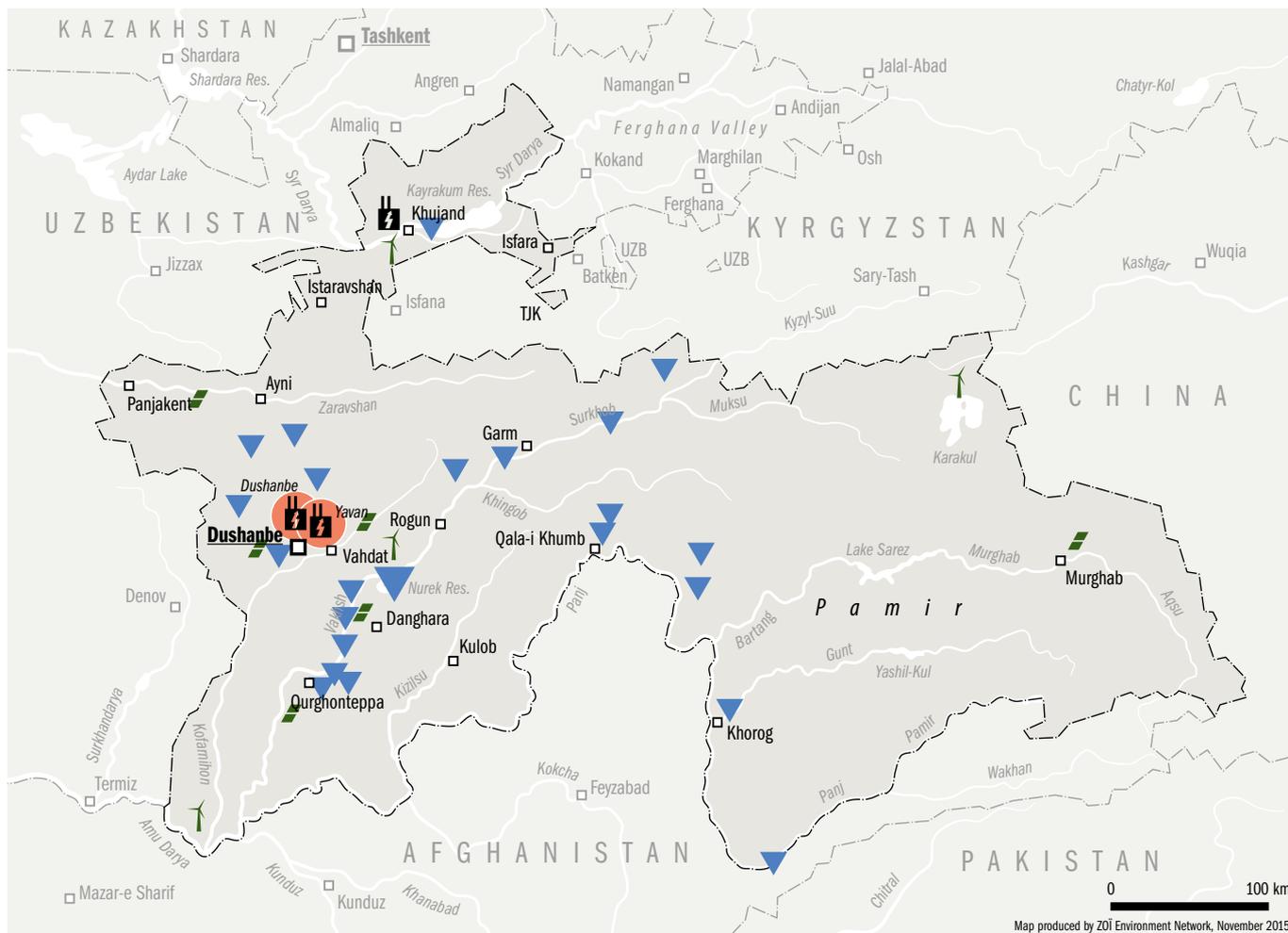
Kairakkum hydropower station rehabilitation and climate-proofing  
Solid waste management in the main cities of Tajikistan  
Public transport and improved water supply  
Rehabilitation of power network

#### World Bank – Green Climate Fund

Climate Adaptation and Mitigation Program for the Aral Sea Basin (CAMP4ASB)

#### UNDP – GEF

National reporting to UNFCCC, green rural energy development



## Energy and emissions

### Fossil fuel energy installations and carbon emissions

● CO<sub>2</sub> emissions from thermal power plants, million tons per year:



⚡ Thermal power-plant (coal/oil/gas)

### Renewable energy installations and plans

🌬️ Wind park

☀️ Solar park

⚡ Hydropower plant

Installed capacity:

🌬️ ☀️ Less than 50 MW

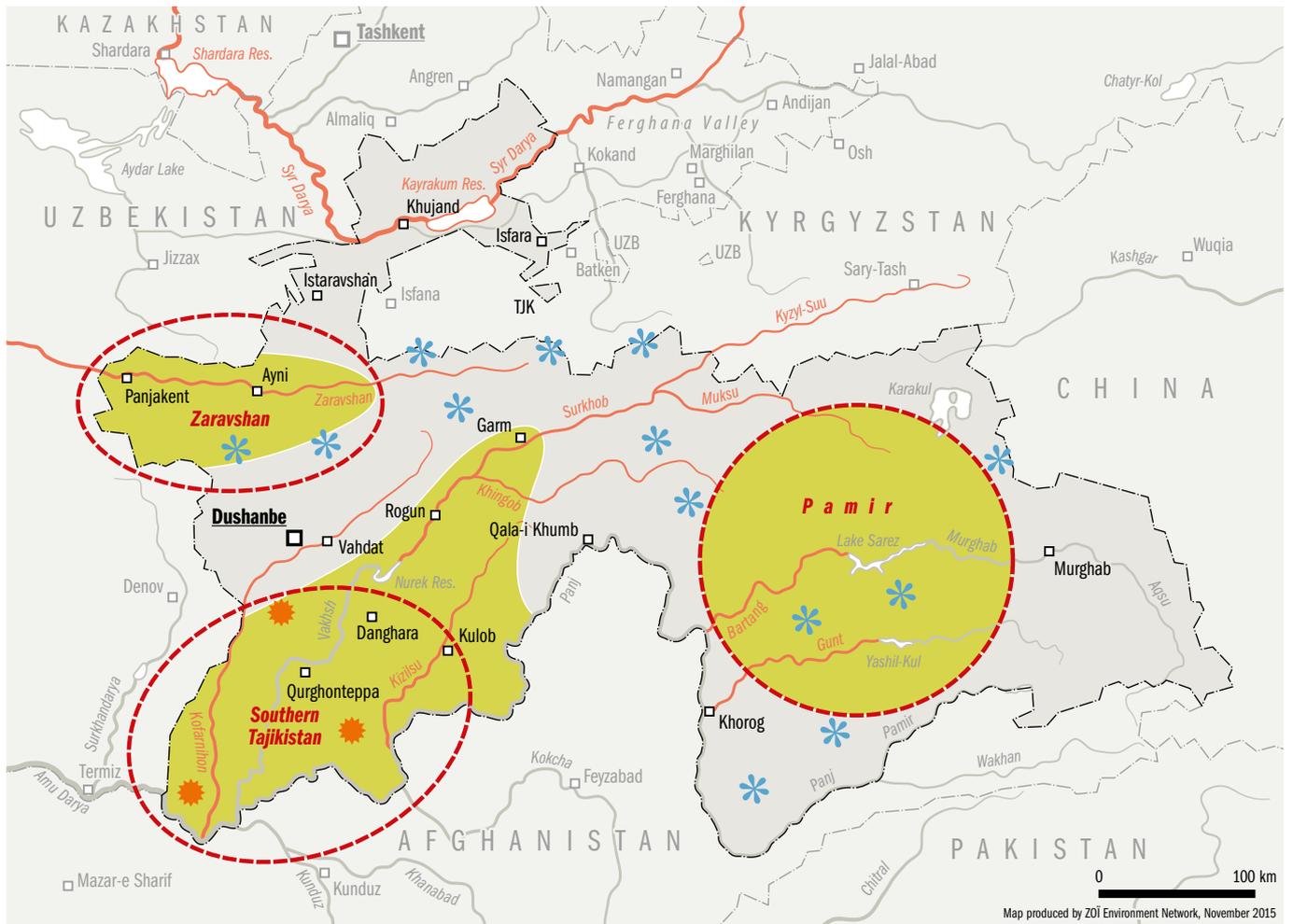
## Policies and institutions

Tajikistan has not yet developed comprehensive legislation on climate issues and in general climate is not yet reflected in environmental, air pollution or energy laws beyond the national climate change action plan (2003) and the national climate and health strategy (2011). A national climate adaptation strategy is in its final stages of development. As one of the countries most vulnerable to climate change, Tajikistan is implementing several project-based climate actions with donor support focusing on climate resiliency.

Suffering from energy shortages and limited energy access, Tajikistan consistently expresses the importance of hydropower and energy security and the need to overcome an energy crisis in its international public statements. To help the country respond more effectively to the energy crisis, UNDP has established an energy crisis early warning system.

As a landlocked and impoverished mountain country acting as a water tower and possessing large potential hydropower resources, Tajikistan shares interests with similar mountain countries, especially its closest neighbours – Afghanistan and Kyrgyzstan – and sees itself as part of an interest group with respect to international climate change processes. The promotion of a global fund for the preservation of glaciers is a particularly high-level interest in the country.

The leading authorities with climate decision-making responsibilities include the Executive Office of the President (responsible for monitoring, coordination and supervision of line ministries), the Committee for Environmental Protection (focal point to GEF and GCF) and its Agency on Hydrometeorology (focal point to the UNFCCC). The Ministry of Energy and Water Resources is one of the key players in climate investments. NGOs are active promoters of innovations and international developments in domestic climate actions and policy through the climate change network - TajCCN. They often work on practical local activities, education and awareness.



## Impacts of climate change

-  Projected shifts in seasonal hydrology and growing uncertainties of water availability
-  Areas most exposed to weather and climate risks
-  Environmentally sensitive and stressed regions
-  Severe drought impacts
-  Reduction of ice cover

## Tajikistan scorecard

-  Country's share of global emissions
-  Country's emissions per capita
-  General climate action ambition

### Mitigation commitment:

-  Emissions reduction
-  Decoupling from population growth
-  Decoupling from economic growth
-  Renewable energy

-  **Adaptation action**

### National climate policy actors

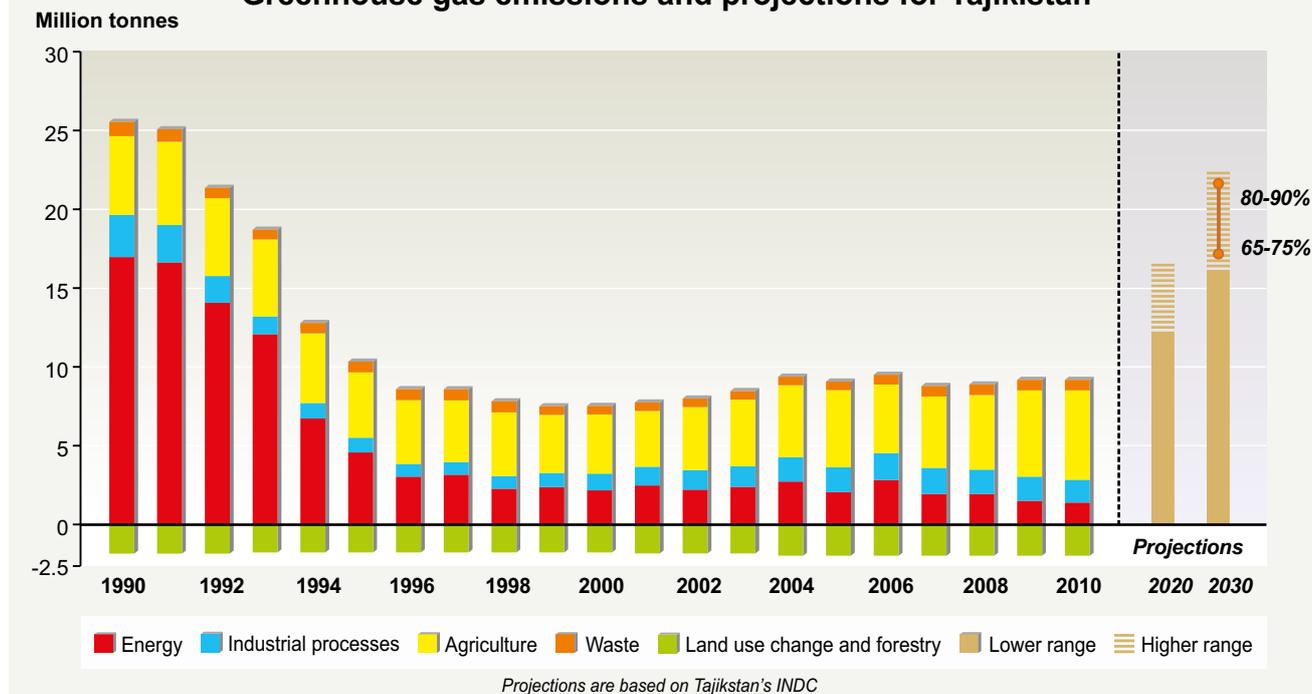
**Policy leadership:** Executive Office of the President, Committee for Environmental Protection

UNFCCC focal point: Agency on Hydrometeorology

GHG inventory: Project based, Climate Change Centre

GCF focal point: Committee for Environmental Protection

## Greenhouse gas emissions and projections for Tajikistan



## Climate actions

Hydropower accounts for more than 95 per cent of the electricity generated in the country, which in combination with a low fossil fuel use makes Tajikistan a low-emission leader of Central Asia. Over the last decade, GHG emissions remained stable, but are expected to increase in the current decade. Recommendations and a scope for mitigation and adaptation activities are reflected in the national climate change action plan (2003).

According to the most recent inventory of GHG emissions (2004-2010), the level of absolute and per capita emissions in Tajikistan remains the lowest in Central Asia (about 1 tonne CO<sub>2</sub>e per person). The current level of emissions as compared to 1990 (25 million tonnes of CO<sub>2</sub>e) has declined by two thirds (to 8 million tonnes of CO<sub>2</sub>e), due to the collapse of the former Soviet Union economy and to structural changes resulting from the transition to a market economy and independence. The most dramatic decline in GHG emissions occurred in the energy sector – a staggering reduction of more than 80 per cent – but not without socioeconomic and environmental consequences: high reliance on imported fossil fuels and their insecure supply creates major difficulties for businesses and the population at large. Coal mining and use, negligible in Tajikistan for 20 years, is starting to grow in the residential, industrial and power sectors with current levels estimated at 0.5 million tonnes/year.

Tajikistan's emissions profile differs from other Central Asian countries. In 1990, the energy sector dominated GHG emissions (almost 70 per cent of the total). From the late 1990s to the present, agriculture has been the main source of GHG emissions (60 per cent). More than 50 per cent of the cars in Tajikistan run on natural gas.

Despite the country's efforts to ensure a reliable emissions inventory, calculations vary from sector to sector, and the available statistical data are not comprehensive.

Tajikistan signed the Paris Agreement in April 2016. Tajikistan's INDC sets a 2030 target of a reduction to 80-90 per cent of 1990 emissions levels without external assistance, and a reduction to 65-75 per cent subject to substantial international funding. On adaptation, the INDC outlines an ambitious set of initiatives the country is pursuing, but reports that national funding is insufficient to implement the measures.

## Climate finance

As a result of its high vulnerability to climate change and its low adaptive capacity, Tajikistan was invited to participate in the Pilot Program for Climate Resilience (PPCR). The budget of PPCR and other climate projects in Tajikistan grew to an estimated US \$150 million in loans and grants, and funded activities in hydropower, agriculture, watershed management and other sectors. Tajikistan also receives adaptation support via the Climate Adaptation and Mitigation Program for Aral Sea Basin (CAMP4ASB) financed by the Green Climate Fund and the World Bank.

Climate-related funding from the Global Environmental Facility (GEF) has supported preparation of the national communications to UNFCCC, sustainable urban transport, development of small-scale hydropower, sustainable watershed management and agrobiodiversity adaptation.

The EBRD has a diverse portfolio of projects in Tajikistan with a value of US \$350 million. Ongoing EBRD projects include solid waste management in the main cities, the Kairakkum hydropower plant rehabilitation, public transport and water supply.

## Sources of information for the scorecard

National climate-related assessments and reports: National climate change action plan (2003). Third national communication to UNFCCC (2014), INDC (2015)

Publications and information materials of Tajikistan's Agency on Hydrometeorology, Tajik PPCR Secretariat, World Bank, CIFs, EBRD, UNECE

Zoi expertise and interviews with stakeholders in Tajikistan



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