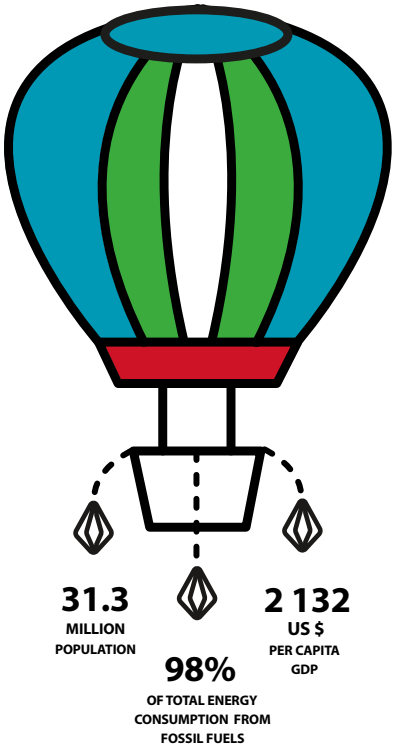
UZBEKISTAN

CLIMATE FACTS AND POLICY

205 MILLION tCO_2e

6.9 TONNES PER CAPITA



Sources: 2005 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

POLICIES AND PROCESSES

Policy framework

Vision 2030: Resource-efficient growth
National sustainable development strategy (under consideration)
Programmes on industry modernization and energy efficient technologies
Revised building code
Strong interest in expansion of solar and wind energy
Growing natural gas share of road transport
Extensive environmental legislation covering clean air
Standardized baseline for the national power sector under CDM

2020 targets

Increase natural gas power generation capacity
Install 100-200 MW of solar- and wind-powered generation capacity
Modernize existing hydropower stations to increase capacity by 120 MW

2030 targets

Mitigation

Preliminary national targets under review and discussion
Modernization in the energy and industry sectors leading to a reduction of 20 million tonnes of CO_2
At least 20 per cent of renewable energies, including sun and wind, in country's energy mix
Reduce energy intensity of GDP by half

Adaptation priorities

Water, agriculture, health and ecosystems

GHG inventory and projections

Second national communication to the UNFCCC provides GHG emission data for 1990-2005
Third national communication, with GHG data for 1990-2012, to be submitted to UNFCCC by end of 2016
82 per cent of GHG emissions originate in the energy sector
Non-CO_2 gases contribute about half of the total emissions

CLIMATE ACTIONS

Industrial and agricultural sector modernization

Lower per capita and per hectare water use, energy use and GHG emissions
Reduction of energy-intensity of GDP by 50 per cent between 2000 and 2013
NAMA on solar energy development (2015-2030)
with a potential for CO_2 emission reductions of 10 million tonnes

Regional actions

Host of Central Asia regional centre on renewable energy
Regional and CIS leader in CDM projects, with 15.23 million tonnes of CERs by 2015

CLIMATE FINANCE

World Bank

Climate Adaptation and Mitigation Program for the Aral Sea Basin (with Green Climate Fund)
Energy Efficiency Financing Facility for Industrial Enterprises
Sustainable Agriculture and Climate Change Mitigation Project (with GEF)

ADB

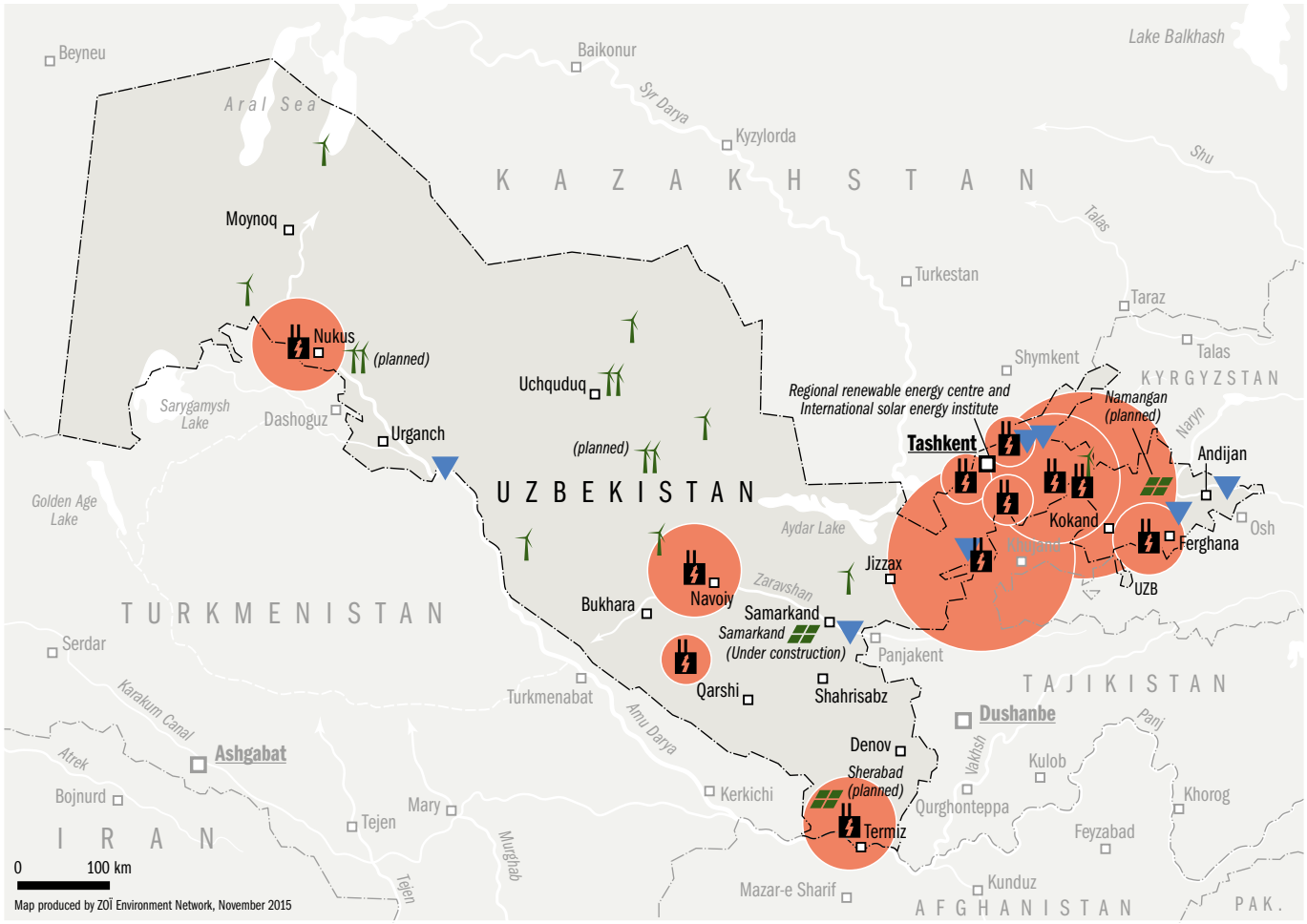
Samarkand Solar Power Project
Energy efficiency/renovation of power plants

Adaptation Fund

Climate resilience of farmers in drought-prone communities

Other international sources

Sustainable rural housing (UNDP-GEF)
Energy-efficient water and transport systems
Modernization of hydrometeorological service



Energy and emissions

Fossil fuel energy installations and carbon emissions

CO_2 emissions from thermal power plants, million tons per year:

more than 5
2 - 5
1 - 2
0.5 - 1
less than 0.5

Thermal power-plant (coal/oil/gas)

Renewable energy installations and plans

Wind farms
Solar power stations
Hydropower stations

Large (50 MW -100 MW)
Medium (Less than 50 MW)

Policies and institutions

Uzbekistan has extensive environmental legislation, which marginally covers protection of the climate system and mainly focuses on clean air. While the country does not have specific climate action plans or legislative acts, climate-related concerns are covered in energy, construction, transport, water and forest development programmes and investments as well as in the country's vision 2030. This vision sets provisional goals for the reduction of the energy intensity of GDP and for increasing the share and use of renewables, primarily solar power. Currently, Uzbekistan is drafting legislation on renewable energy sources taking into account the experience of developed countries and the growing domestic needs for energy. Uzbekistan has also revised building codes to meet higher energy efficiency standards.

The Hydrometeorological Service is the UNFCCC, GEF and GCF focal point, and is the key climate policy agency in Uzbekistan. While UzHydromet is formally in charge of international climate matters, the Ministry of Foreign Affairs is a key player when it comes to international negotiations and decisions. The Ministry of Economy is the CDM focal point and is responsible for climate investment projects and for coordinating the financial means of implementation. The State Committee on Nature Protection is the key player in domestic enforcement of clean air legislation, including actions on industrial and mobile source emissions and waste recycling and minimization. The inter-agency council on climate change chaired by the Deputy Prime Minister enables high-level discussions and coordination on climate change and CDM projects. Uzbekistan hosts relevant international and regional centres – such as the International Institute of Solar Energy, the Central Asia Regional Centre on Renewable Energies, the Executive Secretariat of the International Fund for Saving the Aral Sea, and regional scientific, research and training centres on agriculture, water resources and hydrometeorology.

Impacts of climate change

Rivers with intense water use and increased stress from climatic and hydrological changes

Impact of regional climate change and dust storms due to shrinkage of the Aral Sea

Increased risk of climate-related hazards in the mountains and impacts on populated areas and infrastructure

Densely populated and agriculturally important areas with increased environmental stress and projected impacts of climate change

Reduction of ice cover and risk of glacial lakes outburst floods

Uzbekistan 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

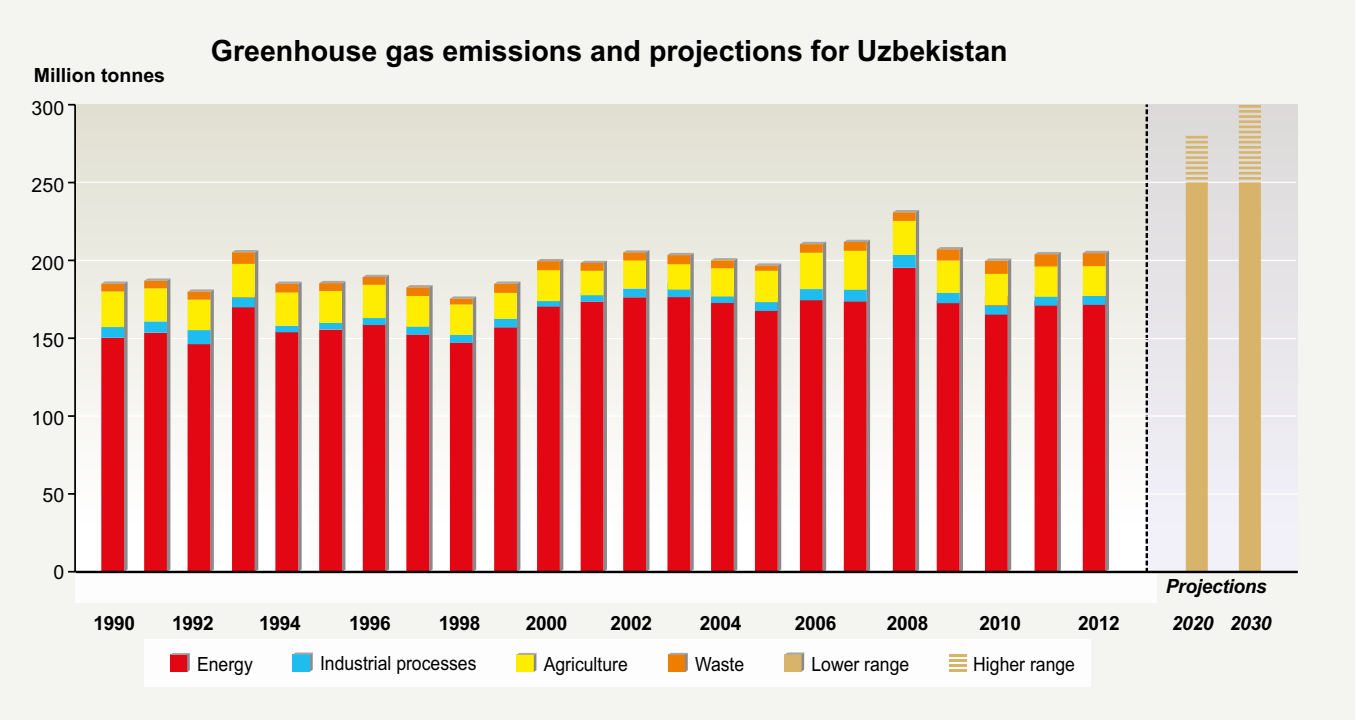
Renewable energy prospects

Adaptation action

National climate policy actors

Policy leadership: shared responsibilities between the Uzbek Hydrometeorological Service, Ministry of Economy and the Uzbek State Committee for Nature Protection

UNFCCC focal point: Hydrometeorological Service
GHG inventory and projections: Hydrometeorological Service
GEF and GCF focal point: Hydrometeorological Service



Climate actions

Uzbekistan is the only country in Central Asia where emissions have remained relatively stable since 1990. A slight increase around 2012 is attributable to a more stable economic situation after the dissolution of the Soviet Union; diversified industries; the growing use of natural gas as a fuel in the power and transport sectors; agricultural and forestry sector dynamics; and population growth. Among greenhouse gases, emissions of CO_2 remained stable and then declined slightly by 2012 compared to 1990 or 2000. Emissions of N_2O also declined as a result of decreases in the use of mineral fertilizers and increases in the application of organic fertilizers. Methane emissions increased almost constantly due to growth in the agricultural sector (emissions from livestock, manure) and in the population (waste). 82 per cent of all GHG emissions originate in the energy sector.

In Samarkand province, with ADB support, Uzbekistan is building the largest solar power plant in Central Asia (100 MW). Two more stations of similar capacity are planned for Surkhandarya and Namangan provinces by 2020. Nearby, in the industrial city of Navoi, a PV panel plant will be built to serve the growing energy needs of the country. A wind power survey was completed in 2015 and several priority sites proposed. Laser levelling of agricultural fields is becoming one of the leading tools to reduce water use in agriculture, and is expected to reduce the energy needed for water pumping by 30 per cent. Large investments are going into fruit and nut orchards and tree plantations, and the forest cover is constantly growing.

Since 2005, Uzbekistan has invested heavily in modernization of the industrial and agricultural sectors. These investments have helped the country lower per capita and per hectare water use, energy use and GHG emissions. Air pollution levels have decreased, including in Tashkent and other industrialized cities with heavy vehicular traffic. The energy intensity of GDP declined by 50 per cent between 2000 and 2013.

Still, Uzbekistan remains one of the most energy inefficient countries in the Eastern Europe and Central Asia regions. Industry and agriculture are among the largest power consumers in the country and also the largest sources of energy inefficiencies due to outdated technologies and high reliance on water pumping. On the other hand, inspired by the success of its UNDP-GEF project on energy efficiency in the construction sector, Uzbekistan undertook revisions to its building standards, and plans to build more energy-efficient urban and rural housing and to develop incentives for energy savings in the residential sector. The Uzbek government and its international development partners are actively promoting both small-scale biogas and hydropower and large-scale solar power and solar water heating.

Climate finance

Uzbekistan is a first phase participant in the Climate Adaptation and Mitigation Program for Aral Sea Basin (CAMP4ASB) financed by the Green Climate Fund and the World Bank.

ADB provides support to renewable energy (including Samarkand solar), energy efficiency and transportation networks.

The Adaptation Fund provides support via UNDP to climate resilience of farming communities in the drought-prone parts of Uzbekistan.

Sources of information for the scorecard

Uzbekistan's strategies and legislation

National climate-related assessments and reports: Second national communication to UNFCCC (2008); Third national communication to UNFCCC (expected 2016); Uzbek MDG 2015 implementation assessment

Zoï expertise and interviews with stakeholders in Uzbekistan

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