

Brief methodological explanations

The forest fund includes forest lands covered with forest, not covered with forest (felling, glades, etc.), special-purpose plantations, forest nurseries, non-closed forest crops, non-forest lands, etc. Land covered by forest - land occupied by forest plantations of natural and artificial origin (forest crops), as well as shrubs. The main feature of the belonging of plantings and shrubs to the forested land is the completeness (the degree of density of trees in the stand, which characterizes the share of their use of the occupied space), which should be in young trees and shrubby thickets 0.4 and higher, and in older plantings – 0.3 and higher.

The lands of specially protected natural territories include the lands of state nature reserves, state national natural parks, state natural reserves, state regional natural parks, state zoological and dendrological parks, state botanical gardens, as well as state natural monuments.

Wind erosion – destruction, removal and blowing of soil cover or rocks under the influence of wind and precipitation, solar radiation.

Water erosion is the erosion or washing away of rocks and soils by flowing water.

Water supplied by the water supply industry and public access to centralized water supply determines the total volume of water supplied to consumers by water supply enterprises-taking into account water losses during transportation, as well as the share of the population with access to water supplied by water supply enterprises from the total population of the country.

Water resource exploitation index – defined as freshwater abstraction as a percentage of available renewable freshwater resources (annual river flow).

The total amount of costs for environmental protection is carried out by summing up the following types of costs: investments in fixed assets directed by enterprises and organizations to implement measures for environmental protection and rational use of natural resources; current costs of enterprises and organizations related to environmental protection and rational use of natural resources.

The share of energy supplied from renewable sources determines the amount of energy supplied annually from renewable sources-in total and broken down by energy source-and the share of renewable energy in the total amount of primary energy in a country supplied in a calendar year.

Release of pollutants into the atmosphere – the entry into the atmospheric air of pollutants (having an adverse effect on the health or activities of the population, on the environment) from stationary sources of emissions.

Capture and disposal of pollutants – the amount of captured pollutants returned to production, used to produce a commercial product, or sold to the side.

Waste processing – mechanical, physical, chemical and (or) biological processes aimed at extracting from waste useful components, raw materials and (or) other materials suitable for further use in the production (manufacture) of products, materials or substances, regardless of their purpose.

Municipal waste refers to the following consumer waste: mixed waste and separately collected household waste, including, but not limited to, paper and cardboard, glass, metals, plastics, organic waste, wood, textiles, packaging, used electrical and electronic equipment, batteries and accumulators; mixed waste and separately collected waste from other sources, if such waste is similar in nature and composition to household waste.

Do you need more information?

All the main indicators of socio-economic development of the republic can be found on the Internet-resource of the Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan www.stat.gov.kz.

The statistical collection «Environmental Protection in the Republic of Kazakhstan» is published on an annual basis in November and is published under the heading «Official statistics»/«Publications»/«Statistical collections». Also, in the «Official statistics»/«By industry»/«Environmental statistics» annual statistical bulletins «On the costs of environmental protection in the Republic of Kazakhstan», «On the operation of water supply and sanitation facilities in the Republic of Kazakhstan», «On the state of atmospheric air protection in the Republic of Kazakhstan», «On the management of municipal waste in the Republic of Kazakhstan», etc.

Do you still have questions?

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Environmental statistics in Kazakhstan




Do you know that...

- In terms of land area, Kazakhstan is one of the ten largest countries in the world, and in terms of land security per capita, it ranks third in the world, after Australia and Canada.
- According to the Ministry of Ecology, Geology and Natural Resources of the Republic of Kazakhstan, 4.5-5 million tons of solid household waste (hereinafter referred to as SHW) are generated in Kazakhstan. SHW is sorted and processed at plants in the cities of Nur-Sultan, Shymkent and Zhanaozen, as well as at enterprises, mainly small and medium-sized businesses.

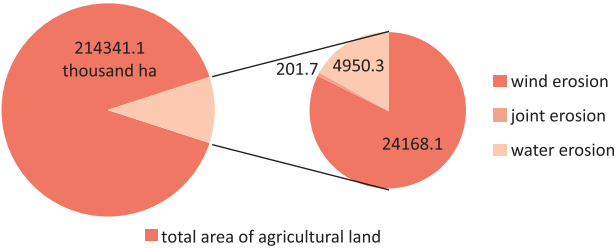
State statistics in the field of environmental protection in the Republic of Kazakhstan is decentralized: it is formed on the basis of official statistics, as well as data from administrative sources (the Ministry of Ecology, Geology and Natural Resources of the Republic of Kazakhstan, the Ministry of Energy of the Republic of Kazakhstan, the Ministry of Agriculture of the Republic of Kazakhstan and other state bodies).

Forest recourse

	2010		2020
The area of the forest fund, mil. ha	28,9		30,1
Covered with forest	4,5%		4,9%
Share of SPNA (Specially protected natural areas)	8,4%		9,6%

Kazakhstan belongs to the low-forest states. The total area of the state forest fund in the country occupies 11% of the territory of the republic. The area of territories covered by forests in 2020, taking into account saxaul plantations, which account for almost half of the forested area, is 4.9%. The types of forest vegetation are determined by the variety of natural areas. Saxaul forests grow in the desert zone. The main part of mountain forests is represented by dark coniferous stands of Altai, Dzungarian and Trans-Ili Alatau. In the flat part of the steppe and forest-steppe zones, birch-aspen spikelet forests, island pine forests, and ribbon forests of the Irtysh region grow. The total area of specially protected natural territories 26251,6 thousand hectares, or 9.6% of the total area of the republic.

Land recourse



According to the qualitative characteristics of the land, in the Republic of Kazakhstan there are more than 90 million hectares of eroded and erosion-hazardous land, of which 29.3 million hectares are actually eroded.



Water recourse

Provision of the population with centralized water supply	in cities	in the villages
2020	97.5%	69.5%
2016	88%	52.3%

Water withdrawn, million cubic meters	21 948	24 584
Water used, million cubic meters	19 232	20 307
Total water consumption per capita, million cubic meters	1 158	1 080

Provision of the population with water supply and sanitation services in the Republic of Kazakhstan

as a percentage of the total population	2016	2017	2018	2019	2020
Public access to water supply services					
in cities	88,0	90	94,5	97,2	97,5
in villages	52,3	55	59,9	64,3	69,5
Provision of the population with centralized water supply					
in cities	88,0	90	94,5	97,0	97,5
in villages	52,3	55	58,6	62,0	63,2
Public coverage of wastewater treatment					
in cities	38,6	39,6	39,6
in villages	68,7	70,5	70,5

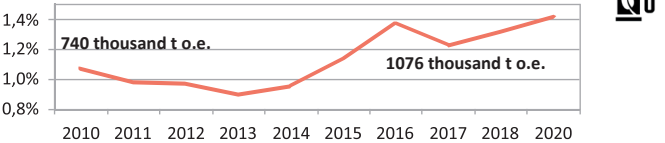
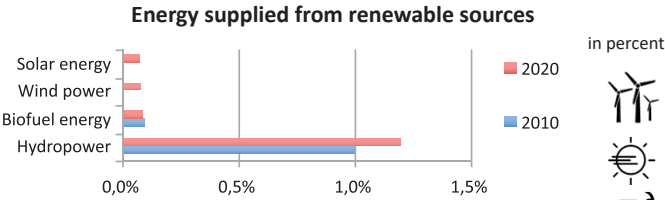
* According to the Committee for Construction and Housing and Communal Services of the Ministry of Industry and Infrastructure Development of the Republic of Kazakhstan.

The volume of expenditures on environmental protection

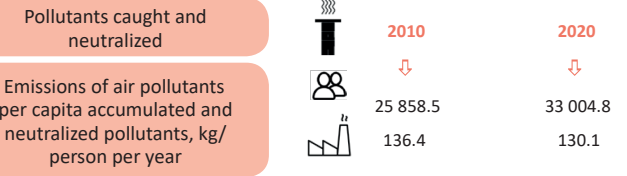
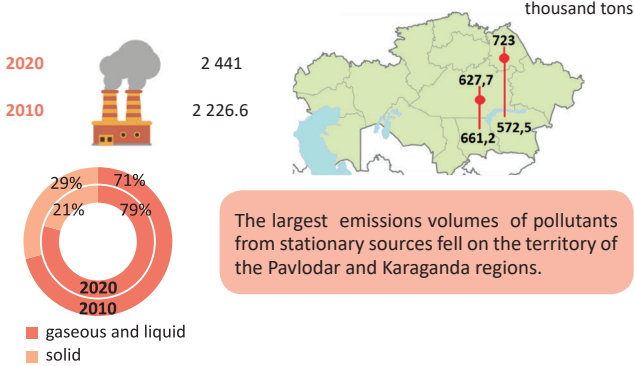
2020	384
2010	140.9

In 2020, the cost of environmental protection of enterprises and organizations amounted to 384 billion tenge, including the share of investments in fixed assets accounted for 45,2%, current costs – 54,8%. The volume of investments in fixed assets aimed at environmental protection is provided to a greater extent (66%) due to investments in renewable energy sources. Akmola (63,9 billion tenge), Atyrau (43,9 billion tenge) and Pavlodar regions (40,5 billion tenge) are the leaders in terms of total expenditures on environmental protection.

The volume of current expenditures on environmental protection in 2020 amounted to 210,4 billion tenge. Of the total current expenditures on air protection and climate change issues, 35% are accounted for, waste management – 30%, and wastewater treatment – 26%. By type of costs, current environmental protection costs were distributed as follows: material costs – 77,5 billion tenge or 37%, labor costs and social contributions – 35,8 billion tenge (17%), paid to other enterprises (organizations) for the provision of environmental services – 85,5 billion tenge (41%).



Emissions of pollutants into the atmosphere from stationary sources



Waste generation rate

	2010	2020
Hazardous waste generated	303 116.6	137 827.9
Processed solid household waste	71.1	868.9
Municipal waste collected	3 784.7	3 708.5
Collected municipal waste per capita, kg/person per year	232.0	197.7