**NATIONAL STATISTICAL COMMITTEE
OF THE REPUBLIC OF BELARUS**

ENVIRONMENTAL PROTECTION IN THE REPUBLIC OF BELARUS

Statistical book

MINSK
2019

The statistical book presents data on the state of the natural environment and environmental impact of economic activities for the years 2012-2018.

Intended for senior management, government agencies and financial and economic departments of organisations, research community, higher education teaching staff, postgraduates and students, and other interested users.

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Foreword

The data book provides information for the years 2012-2018 on the state of the environment, availability and use of natural resources, and environmental expenditure. It also presents green growth indicators and selected environmental indicators of the national list of Sustainable Development Goals indicators, information on areas of radioactive contamination as a result of the Chernobyl Nuclear Power Plant catastrophe.

The information is presented at the national and regional level. Some indicators are provided by districts and selected cities. A number of indicators are broken down by economic activities.

The information source is the official statistics compiled by state statistics bodies and other producers of official statistics as well as administrative data compiled by government agencies whose activities are connected with environmental management, ecological monitoring and environmental protection.

Data in value terms are provided at current prices; data from 2016 are shown in terms of the new denomination (1 BYN = 10 000 BYR).

In certain cases data for 2018 are provisional and will be revised in further issues.

The publication is annual.

ABBREVIATIONS:

m	- metre	O_2	- oxygen
m^2	- square metre	N	- nitrogen
m^3	- cubic metre	P	- phosphorus
ha	- hectare	NO_3	- nitrates
km	- kilometre	CO_2	- carbon dioxide
km^2	- square kilometre	BYR/BYN	- Belarusian rubles
kg	- kilogramme	thsd	- thousand
t	- tonne	mln	- million
pcs	- units, pieces	bn	- billion
Ci	- Curie	k	- coefficient

Explanation of symbols:

–	not applicable
0.0	negligible magnitude
…	data not available

Relative indicators are calculated on the basis of absolute figures with smaller units of measure than those presented in the tables.

In certain cases minor discrepancies between the total and the sum of its components can be explained by data rounding.

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1. GEOGRAPHIC CHARACTERISTICS OF THE REPUBLIC OF BELARUS

1.1. Main geographic characteristics

The **Republic of Belarus** is situated in Central and Eastern Europe.

Average annual population, 2018:
9 483.5 thsd

Area: 207.6 thsd sq km

(forest land 42%; agricultural land 41%; land under swamps and water bodies 6%; other land 11%).

Extension:

from North to South: 560 km,
from West to East: 650 km.

State frontier:

with Latvia and Russian Federation in the North;
with Lithuania in the North-West;
with Poland in the West;
with Ukraine in the South;
with Russian Federation in the East and North-East.

Administrative division

6 regions (Brest, Vitebsk, Gomel, Grodno, Minsk, Mogilev) and Minsk city – the capital

Each region is subdivided into districts and cities of regional subordination.

The highest point above sea level

345 metres (Dzerzhinskaya mountain, Dzerzhinsk district of Minsk region).

The lowest place above sea level

80-90 metres (valley of the Neman river, Grodno region).

Climate:

moderate climate, with mild and humid winters and warm and humid summers.

■ Land area, thsd sq km
● Average annual population for 2018, thsd

1.2. Main characteristics of large and medium-sized rivers[1)]

	Length, km		Catchment area, km^2	
	total	within country's territory	total	within country's territory
Large rivers				
Berezina	561	561	24 500	24 500
Goryn'	659	82	27 700	670
Dnieper	2 145	700	504 000	118 360
Western Dvina	1 020	338	87 900	33 150
Western Bug	772	169	73 470	9 990
Neman	914	436	98 200	34 610
Pripyat	761	495	121 000	50 900
Sozh	648	493	42 140	21 700
Medium-sized rivers				
Besed'	261	185	5 600	3 880
Viliya	510	276	25 100	10 920
Drut'	266	266	5 020	5 020
Western Berezina	182	182	4 000	4 000
Iput'	437	64	10 900	1 250
Oster	274	78	3 370	640
Ptich	421	421	9 470	9 470
Svisloch	257	257	5 160	5 160
Ubort'	292	126	5 820	1 910
Shchara	300	300	6 730	6 730
Yaselda	214	214	7 790	7 790

[1)] Data of the Ministry of Natural Resources and Environmental Protection.

1.3. Main characteristics of largest reservoirs[1)]

	Surface area, km^2	Type of reservoir	Main function	Put into operation	Location (region, district)
Western Dvina basin					
Khorobrovka	31.97	lake-type	fish farming, recreation	1967	Vitebsk, Miory
Yezerishchenskoye	16.90	lake-type	flow regulation	1959	Vitebsk, Gorodok

Continued

	Surface area, km^2	Type of reservoir	Main function	Put into operation	Location (region, district)
Western Bug basin					
Belovezhskaya Pushcha	3.32	in-channel	nesting of wild birds, fish raising	1964[2)]	Brest, Kamenets
Lukovskoye	5.40	lake-type off-channel	moistening, water supply of fish farm	1980	Brest, Malorita
Neman basin					
Vileyskoye	63.80	in-channel	water supply for Minsk City, power generation, recreation	1974	Minsk, Vileyka
Zelvenskoye	11.90	in-channel	power generation, flow regulation, irrigation, recreation	1983[2)]	Grodno, Zelva
Dnieper basin					
Zaslavskoye	26.86	in-channel	flow regulation, recreation, water supply	1958	Minsk, Minsk
Osipovichskoye	11.87	in-channel	power generation, water supply of fish farm, irrigation	1953[2)]	Mogilev, Osipovichy
Svetlogorskoye	14.10	off-channel	diversion of runoff, irrigation, recreation	1986	Gomel, Svetlogorsk
Chighirinskoye	21.19	in-channel	power generation, recreation	1960	Mogilev, Kirovsk
Pripyat basin					
Krasnoslobodskoye	23.65	in-channel	watering, water supply of fish farm	1973	Minsk, Soligorsk
Lyubanskoye	22.50	in-channel	moistening, water supply of fish farm	1966	Minsk, Lyuban and Staryie Dorogi
Pogost	16.16	lake-type off-channel	moistening, water supply of fish farm	1978	Brest, Pinsk
Selets	20.70	in-channel	moistening, water supply of fish farm	1986	Brest, Bereza
Soligorskoye	23.10	in-channel	water supply, watering	1967	Minsk, Soligorsk

[1)] Data of the research laboratory for limnology of the Belarusian State University.

[2)] Year when the reservoir filling began.

1.4. Main characteristics of largest lakes[1)]

	Area, km^2	Depth, m		Location (region, district)
		maximum	average	
Naroch	79.6	24.8	8.9	Minsk, Myadel
Osveyskoye	52.8	7.5	2.0	Vitebsk, Verkhnedvinsk
Chervonoye	40.8	2.9	0.7	Gomel, Zhitkovichy
Lukomskoye	37.7	11.5	6.6	Vitebsk, Chashniki
Drivyaty	36.1	12.0	6.1	Vitebsk, Braslav
Vygonoshchanskoye	26.0	2.3	1.2	Brest, Ivatsevichy
Neshcherdo	24.6	8.1	3.4	Vitebsk, Rossony
Svir	22.3	8.7	4.7	Minsk, Myadel
Snudy	22.0	16.5	4.9	Vitebsk, Braslav
Chernoye	17.3	3.0	1.3	Brest, Bereza
Ezerishche	16.8	11.5	4.4	Vitebsk, Gorodok
Myadel	16.2	24.6	6.3	Minsk, Myadel
Lisno	15.7	6.1	2.6	Vitebsk, Verkhnedvinsk
Selyava	15.0	17.6	6.3	Minsk, Krupki
Myastro	13.1	11.3	5.4	Minsk, Myadel
Strusto	13.0	23.0	7.3	Vitebsk, Braslav
Richy	12.8	51.9	10.2	Vitebsk, Braslav
Losvido	11.4	20.2	7.2	Vitebsk, Gorodok
Lepelskoye	10.2	33.7	7.3	Vitebsk, Lepel

[1)] Data of the research laboratory for limnology of the Belarusian State University.

2. INDICATORS FROM THE NATIONAL LIST OF SUSTAINABLE DEVELOPMENT GOAL INDICATORS

On September 2015, the United Nations member states adopted the 2030 Agenda for Sustainable Development. The Agenda contains a number of Goals aimed at liquidation of poverty, preservation of the planet resources and ensuring prosperity for all.

The majority of goals include targets and indicators involving environmental issues in the field of sustainable water resources management, making human settlements sustainable, ensure sustainable consumption and production patterns, combating climate change, protection and restoration of terrestrial ecosystems and others.

2.1. Selected indicators SDG 6. Ensure availability and sustainable management of water and sanitation for all

2.1.1. Wastewater discharges, processed at wastewater facilities, as % of the total volume of discharges processed to permissible discharge standards or below such standards, by regions and Minsk city (indicator 6.3.1.1)[1)]

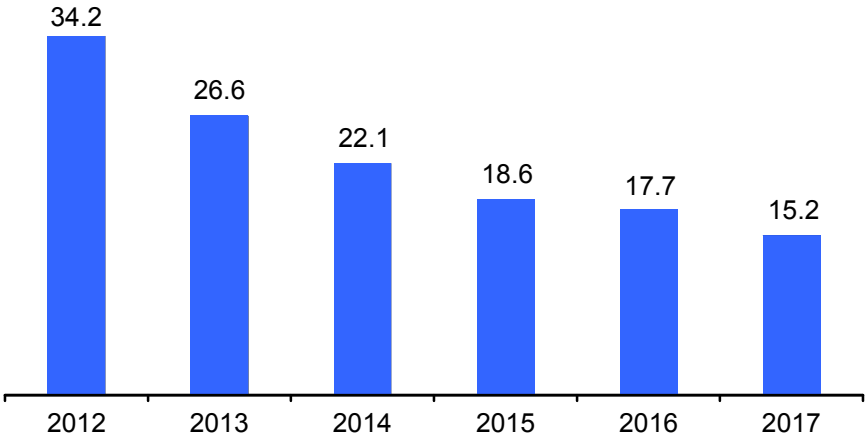
(percent)

	2012	2013	2014	2015	2016	2017	2018
Republic of Belarus	99.6	99.5	99.5	99.0	99.2	99.4	99.4
Regions and Minsk city:							
Brest	99.9	99.9	99.6	99.6	99.7	99.6	99.8
Vitebsk	99.9	99.9	99.9	99.9	99.1	99.6	99.9
Gomel	99.8	99.9	100	100	98.3	99.9	99.5
Grodno	98.9	99.9	99.9	100	99.9	99.9	99.8
Minsk city	100	100	100	100	99.8	100	100
Minsk	97.2	96.7	95.8	93.3	95.5	95.6	96.0
Mogilev	99.6	99.4	99.6	98.9	99.9	99.6	99.5

[1)] Data of the Ministry of Natural Resources and Environmental Protection.

2.1.2. Extraction of water from natural sources per year per unit of gross value added (indicator 6.4.1.1)

(cubic metres per thousand BYN)



2.1.3. Change in the area of water bodies by region (indicator 6.6.1.1)[1)]

(percent)

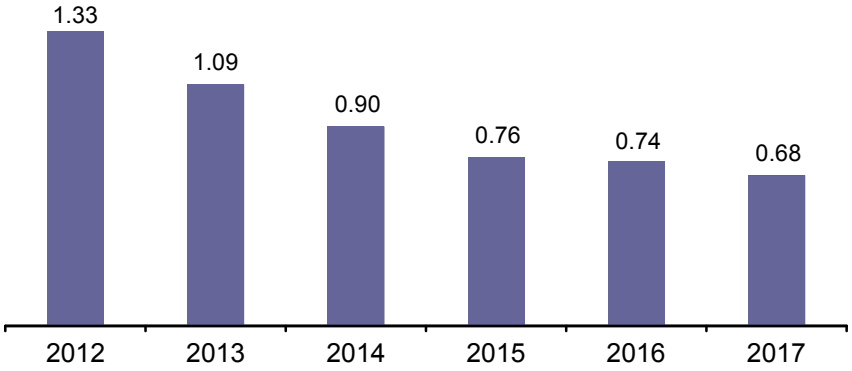
	2012	2013	2014	2015	2016	2017	2018
Republic of Belarus	6.4	6.4	6.3	6.2	6.1	6.1	6.1
Region:							
Brest	9.9	9.9	9.9	9.7	9.7	9.7	9.7
Vitebsk	8.4	8.3	8.3	8.0	8.0	8.1	8.2
Gomel	6.6	6.6	6.4	6.3	6.1	6.1	6.1
Grodno	4.4	4.4	4.4	4.3	4.0	3.9	3.9
Minsk	4.1	4.1	4.1	4.1	4.1	4.1	4.1
Mogilev	4.4	4.4	4.1	4.2	4.2	4.2	4.2

[1)] Data of the State Committee for Property.

2.2. Selected indicators SDG 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

2.2.1. CO_2 emission per unit of value added (indicator 9.4.1)

(kilogrammes per BYN)



2.3. Selected indicators SDG 11. Make cities and human settlements inclusive, safe, resilient and sustainable

2.3.1. Proportion of the population using service of disposal of solid municipal waste regularly by regions and Minsk city (indicator 11.6.1.1)[1)]

(percent)

	2016	2017	2018
Republic of Belarus	75.3	89.5	90.1
Regions and Minsk city:			
Brest	70.9	92.5	92.9
Vitebsk	70.3	82.0	82.3
Gomel	71.9	95.2	95.6
Grodno	73.5	89.5	89.8
Minsk city	83.6	87.0	87.6
Minsk	71.0	87.0	87.4
Mogilev	83.0	94.8	95.2

[1)] Data of the Ministry of Housing and Utilities Services.

2.3.2. Average annual concentrations of air pollutants by selected cities (indicator 11.6.2.1)[1)]

(microgrammes per cubic metre of air)

	2012	2013	2014	2015	2016	2017	2018
Annual mean levels of fine particulate matter (PM_{10})							
Brest	27	…	22	15	11	10	20
Vitebsk	…	17	18	16	15	…	…
Gomel	31	28	38	53	…	32	29
Grodno	24	20	21	…	20	19	23
Minsk City							
residentional area	22	20	20	15	12	10	…
industrial area	34	35	40	35	24	13	12
Mogilev							
residentional area	19	18	22	14	15	13	19
industrial area	26	23	34	29	22	22	28
Novopolotsk	19	18	22	17	18	17	20
Polotsk	24	18	16	12	…	11	12
Annual mean levels of fine particulate matter ($PM_{2.5}$)							
Minsk City							
residentional area	…	…	…	…	17	14	15
Zhlobin	…	…	…	…	12	15	19

[1)] Data of the Ministry of Natural Resources and Environmental Protection.

2.4. Selected indicators SDG 12. Ensure sustainable consumption and production patterns

2.4.1. Industrial waste of hazard classes 1-3 generated per capita by regions and Minsk city (indicator 12.4.2.1)

(kilogrammes)

	2012	2013	2014	2015	2016	2017	2018
Republic of Belarus	139.8	149.5	182.0	127.3	171.2	175.6	231.9
Regions and Minsk city:							
Brest	229.3	215.3	260.9	103.6	248.2	122.1	442.3
Vitebsk	123.4	58.1	49.7	37.6	37.6	48.8	37.3
Gomel	60.0	58.2	64.6	64.8	83.0	103.4	114.1
Grodno	268.8	302.4	272.3	266.0	309.2	408.3	377.8
Minsk city	40.8	189.3	234.8	147.4	170.3	157.3	69.7
Minsk	61.6	64.3	77.6	55.6	68.4	92.1	244.0
Mogilev	296.9	178.2	336.8	263.2	340.8	400.6	476.1

2.4.2. Proportion of recovered industrial waste of hazard classes 1-3 in total industrial waste of hazard classes 1-3 generated by regions and Minsk city (indicator 12.4.2.2)[1)]

(percent)

	2012	2013	2014	2015	2016	2017	2018
Republic of Belarus	100.1	77.1	72.1	73.7	73.9	62.8	92.8
Regions and Minsk city:							
Brest	89.9	92.9	75.5	60.1	97.0	68.6	148.0
Vitebsk	65.8	29.4	44.0	44.8	57.6	75.8	46.0
Gomel	309.7	392.6	293.2	324.6	167.9	105.5	95.1
Grodno	74.8	57.0	49.0	51.6	60.0	66.4	66.4
Minsk city	47.2	14.2	26.3	10.4	17.2	19.4	75.3
Minsk	56.8	46.7	53.9	47.9	59.2	59.9	25.3
Mogilev	117.2	100.0	98.1	96.7	92.0	73.2	101.4

[1)] Recovered industrial waste is reflected taking into account partial recovery of previously accumulated waste. Data of the Ministry of Natural Resources and Environmental Protection.

2.4.3. Proportion of detoxified industrial waste of hazard classes 1-3 in total industrial waste of hazard classes 1-3 generated by regions and Minsk city (indicator 12.4.2.2)[1)]

(percent)

	2012	2013	2014	2015	2016	2017	2018
Republic of Belarus	2.2	1.5	3.4	2.0	2.1	3.0	1.3
Regions and Minsk city:							
Brest	0.0	0.3	0.2	1.0	0.4	2.9	0.2
Vitebsk	0.0	0.0	1.2	2.6	2.5	5.1	7.0
Gomel	0.3	0.3	0.5	0.3	0.2	0.2	0.1
Grodno	5.7	3.3	3.6	4.8	4.7	3.7	3.5
Minsk city	8.0	2.0	10.0	1.9	1.4	2.0	4.5
Minsk	2.8	2.4	1.6	2.7	2.4	12.2	1.0
Mogilev	1.2	0.1	0.0	0.2	2.5	0.9	0.2

[1)] Data of the Ministry of Natural Resources and Environmental Protection.

2.4.4. Proportion of landfilled industrial waste of hazard classes 1-3 in total industrial waste of hazard classes 1-3 generated by regions and Minsk city (indicator 12.4.2.4)[1)]

(percent)

	2012	2013	2014	2015	2016	2017	2018
Republic of Belarus	9.4	8.8	8.9	8.2	7.1	6.6	5.6
Regions and Minsk city:							
Brest	2.5	4.9	11.3	7.1	7.0	7.4	2.3
Vitebsk	18.6	39.7	34.5	21.5	24.4	20.2	24.4
Gomel	26.8	22.9	26.1	18.7	13.7	8.3	16.0
Grodno	3.6	3.2	3.9	4.5	4.5	3.8	3.9
Minsk city	31.7	5.9	4.8	7.9	7.0	6.7	18.2
Minsk	18.7	18.3	16.9	16.2	11.6	10.9	4.5
Mogilev	4.4	8.2	4.6	5.1	4.2	5.3	3.4

[1)] Data of the Ministry of Natural Resources and Environmental Protection.

2.4.5. Proportion of industrial waste of hazard classes 1-3 sent for storage in total industrial waste of hazard classes 1-3 generated by regions and Minsk city (indicator 12.4.2.5)[1)]

(percent)

	2012	2013	2014	2015	2016	2017	2018
Republic of Belarus	17.2	43.2	37.0	45.1	33.9	31.4	21.9
Regions and Minsk city:							
Brest	8.2	6.2	14.2	33.6	11.1	22.2	1.6
Vitebsk	16.1	33.1	29.6	34.9	22.7	17.1	24.9
Gomel	16.2	22.6	14.8	11.8	11.5	5.2	4.7
Grodno	19.4	41.9	47.4	46.4	32.3	28.6	27.2
Minsk city	15.1	78.3	59.9	80.2	75.1	73.4	4.1
Minsk	25.4	38.0	35.9	40.9	35.7	19.7	71.7
Mogilev	23.1	51.7	30.1	27.3	27.1	21.6	18.1

[1)] Data of the Ministry of Natural Resources and Environmental Protection.

2.4.6. Proportion of solid municipal waste recovered in total solid municipal waste generated by regions and Minsk city (indicator 12.5.1.1)[1)]

(percent)

	2012	2013	2014	2015	2016	2017	2018
Republic of Belarus	10.0	12.0	14.5	15.6	15.8	17.2	18.8
Regions and Minsk city:							
Brest	8.0	11.8	14.9	16.9	16.1	16.2	19.3
Vitebsk	9.0	10.8	11.8	15.3	17.2	16.5	17.6
Gomel	12.0	13.2	14.7	15.0	15.7	16.6	18.1
Grodno	11.3	12.1	14.2	15.1	13.3	17.7	18.3
Minsk city	11.1	13.4	15.6	16.0	16.7	18.7	20.3
Minsk	6.8	7.2	11.2	12.4	12.4	13.7	14.3
Mogilev	9.8	13.8	18.2	18.9	18.8	20.5	24.6

[1)] Data of the Ministry of Housing and Utilities Services.

2.5. Selected indicators SDG 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

2.5.1. Proportion of specially protected natural areas in the total area of the country, regions and Minsk city (indicator 15.1.2.1)

(as of January 1; percent)

	2013	2014	2015	2016	2017	2018	2019
Republic of Belarus	7.6	7.8	8.2	8.8	8.7	8.7	8.9
Regions and Minsk city:							
Brest	13.9	14.0	14.1	14.2	14.4	14.4	14.7
Vitebsk	8.7	8.8	8.8	9.5	9.5	9.5	9.7
Gomel	5.0	5.7	6.8	7.4	7.4	7.4	7.4
Grodno	9.8	9.9	9.8	9.9	10.1	10.1	10.1
Minsk city	0.4	0.4	0.4	1.7	1.7	1.7	1.7
Minsk	6.2	6.4	6.9	7.6	7.6	7.6	7.6
Mogilev	2.3	2.3	3.8	4.4	3.0	3.5	4.6

[1)] Data of the Ministry of Natural Resources and Environmental Protection.

2.5.2. Forest coverage of the territory at the country and regional level (indicators 15.1.1, 15.2.1.1)

(as of January 1; percent)

	2013	2014	2015	2016	2017	2018	2019
Republic of Belarus	39.1	39.3	39.5	39.7	39.8	39.8	39.8
Region:							
Brest	35.8	36.1	36.2	36.3	36.3	36.2	36.4
Vitebsk	39.7	39.8	40.3	40.8	40.8	41.0	41.1
Gomel	46.1	46.6	46.9	47.0	46.9	47.1	46.4
Grodno	34.9	35.0	35.1	35.1	35.1	35.2	35.7
Minsk	38.1	38.0	38.0	38.1	38.2	38.1	38.0
Mogilev	38.5	38.5	37.8	38.0	38.1	38.2	38.0

[1)] Data of the Ministry of Forestry.

2.5.3. Average stock of forest vegetation by region (indicator 15.2.1.2)[1)]

(cubic metres per 1 hectare)

	2012	2013	2014	2015	2016	2017	2018
Republic of Belarus	193.4	195.7	197.7	200.1	203.5	205.9	206.7
Region:							
Brest	179.8	184.0	186.9	188.6	191.8	194.6	198.4
Vitebsk	182.9	184.3	186.5	190.2	194.0	196.4	197.6
Gomel	185.0	187.1	189.2	190.1	192.9	192.0	190.8
Grodno	211.9	216.1	216.9	220.0	226.4	237.4	239.7
Minsk	205.4	207.3	209.8	214.0	216.5	217.2	218.5
Mogilev	205.6	206.8	207.9	209.3	212.0	214.6	214.6

[1)] Data of the Ministry of Forestry.

2.5.4. Proportion of established forest plantations based on genetic selection in total forest planting and seeding by region (indicator 15.2.1.3)

(percent)

	2012	2013	2014	2015	2016	2017	2018
Republic of Belarus	35.7	38.6	37.8	40.1	40.9	45.4	52.0
Region:							
Brest	43.9	40.6	42.7	44.1	38.6	49.0	47.3
Vitebsk	33.0	40.0	37.3	36.3	42.7	52.2	61.8
Gomel	20.2	23.5	22.4	28.7	37.9	46.4	52.1
Grodno	49.5	55.0	54.9	51.9	52.8	58.3	54.5
Minsk	40.8	40.2	43.4	46.1	35.7	29.9	46.8
Mogilev	37.7	44.1	36.9	42.2	45.6	58.8	55.9

2.5.5. Average volume of timber harvesting from one hectare of forest land by region (indicator 15.2.1.4)[1)]

(cubic metres)

	2012	2013	2014	2015	2016	2017	2018
Republic of Belarus	2.1	2.1	2.3	2.1	2.4	2.7	3.3
Region:							
Brest	1.8	1.8	1.9	1.9	1.9	2.6	2.9
Vitebsk	1.9	2.0	2.0	2.0	1.7	1.9	2.2
Gomel	1.8	2.0	2.0	1.9	1.9	3.2	4.2
Grodno	2.1	2.1	2.4	2.1	2.1	2.2	2.6
Minsk	2.4	2.3	2.4	2.2	3.9	3.3	3.5
Mogilev	2.7	2.8	3.1	2.9	2.9	2.9	3.7

[1)] Data of the Ministry of Forestry.

2.5.6. Proportion of rare and endangered wildlife animal species relative to total number of species by taxonomic group (indicator 15.5.1.1)[1)]

(percent)

	2012	2013	2014	2015	2016	2017	2018
Mammals	21.8	21.8	25.3	24.7	24.7	25.0	24.1
Birds	22.3	22.0	21.7	21.5	21.3	21.3	21.1
Reptiles	28.6	28.6	28.6	28.6	28.6	28.6	28.6
Amphibians	15.4	15.4	15.4	15.4	15.4	15.4	15.4
Fish and fish-shaped	14.7	14.7	13.2	13.2	13.2	13.2	13.2

[1)] Data of National Academy of Sciences of Belarus.

2.5.7. Proportion of rare and endangered wildlife plant species relative to total number of species by taxonomic group (indicator 15.5.1.2)[1)]

(percent)

	2012	2013	2014	2015	2016	2017	2018
Vascular	6.0	4.6	4.7	4.7	4.7	4.7	4.7
Mosses	7.2	7.2	7.9	7.9	7.8	7.8	7.8
Lichens	4.3	4.3	4.3	4.0	3.7	3.7	3.7
Algae	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Fungi	0.9	0.8	0.8	0.8	0.8	0.8	0.8

[1)] Data of National Academy of Sciences of Belarus.

3. GREEN GROWTH INDICATORS

Green growth indicators (GGI) characterize the processes of greening the economy through the conservation and rational use of natural resources and the impact of these processes on the development of the social sphere.

GGI have been produced in compliance with the Guide for the EU Eastern Partnership countries *"Measuring the Green Transformation of the Economy"* prepared by the Organisation for Economic Cooperation and Development (OECD).

GGI are divided into five groups:

- Socio-economic indicators;
- The environmental and resource productivity of the economy;
- Natural assets;
- The environmental quality of life;
- Economic opportunities.

The indicators of the environmental and resource productivity of the economy characterise environmental and resource efficiency of production and consumption and help to track trends related to the elimination of the dependence between resource consumption and economic growth.

Production-based carbon productivity represents the GDP generated per unit of CO_2 emitted in production.

Demand-based carbon productivity represents the volume of gross national income per unit of carbon dioxide emissions.

Waste recovery ratios are defined as the amount of waste used in production of products, energy, works and services as a percent of the amount of industrial waste generated.

The natural assets indicators characterise availability of stocks of renewable and non-renewable resources necessary for economic activity.

The environmental quality of life indicators characterise environmental conditions affecting quality of life of the population through air and water pollution, climate change

The indicators of the economic opportunities characterise the support of the government and the role of business as the key stakeholders of green growth.

Labour force participation rate is a ratio of the number of labour force (employed and unemployed) aged 15-74 to the total population of the corresponding age group, in percent.

Actual unemployment rate (according to the ILO methodology) is a ratio of the number of unemployed aged 15-74 to the number of labour force of the corresponding age group, in percent.

Ageing coefficient is a ratio of the number of population over age 64 to the number of population under age 15.

3.1. Socio-economic indicators

	2012	2013	2014	2015	2016	2017	2018
Socio-demographic dimension							
Average annual population, thsd	9 464	9 466	9 475	9 490	9 502	9 498	9 483
Population density, inhabitants per 1 km^2	46	46	46	46	46	46	46
Ageing coefficient, k	0.894	0.885	0.888	0.885	0.884	0.890	0.899
Life expectancy at birth, years	72.2	72.6	73.2	73.9	74.1	74.4	74.5
Labour force participation rate, %	…	…	71.7	71.8	70.8	71.3	70.9
Actual unemployment rate (ILO methodology), %	…	…	5.1	5.2	5.8	5.6	4.8
Average annual registered unemployment rate, %	0.6	0.5	0.5	0.9	1.0	0.8	0.4
Access to education:							
gross graduation ratio from higher education, %	58.0	60.0	61.4	63.2	65.8	76.4	66.0
gross graduation ratio from secondary education, %	43.3	45.5	42.7	42.9	40.4	39.8	36.7
Gini coefficient, k	0.285	0.283	0.275	0.276	0.279	0.269	0.275
Economic dimension							
Gross domestic product							
BYR bn	547 617	670 688	805 793	899 098	94.9	105.7	121.6
% of previous year	101.7	101.0	101.7	96.2	97.5	102.5	103.0
Gross domestic product, USD mln	65 428	74 761	78 536	55 317	47 479	54 698	59 586
Gross domestic product by PPP[1)], USD bn	167.8	172.4	177.9	172.9	170.5	178.1	187.7
Net national income, BYR bn	484 600	584 833	699 247	773 481	80.8	90.2	103.8

Continued

	2012	2013	2014	2015	2016	2017	2018
Labour productivity by GDP, BYR thsd	118 735	146 490	177 078	199 977	21.6	24.3	28.0
Volume of foreign trade in goods and services to GDP (relative importance of trade)[2], %	153.1	119.8	110.7	115.9	125.2	133.4	139.7
Consumer price index, % of previous year	159.2	118.3	118.1	113.5	111.8	106.0	104.9

[1] Belstat's estimates; 2014 – official result of the International Comparison Programme round.

[2] Balance of Payments data at the moment of GDP estimation.

3.2. Environmental and resource efficiency of the economy

	2012	2013	2014	2015	2016	2017	2018
Production-based carbon productivity, BYN per kg	0.9	1.0	1.3	1.5	1.6	1.7	…
Demand-based carbon productivity, BYN per kg	0.8	1.0	1.2	1.5	1.5	1.6	…
Energy productivity, BYN thsd per kg of fuel equivalent (GDP at constant prices (2005))	2.3	2.6	2.6	2.7	2.7	2.7	2.6
Energy intensity of GDP, kg of fuel equivalent / BYN mln (GDP at constant prices (2005))	438.9	386.7	387.7	369.9	374.5	376.1	380.5
Renewable electricity as % of total electricity generation	0.6	0.9	0.7	0.9	1.1	2.2	1.8
Industrial waste generation intensity per unit of GDP, kg per BYN	0.75	0.60	0.65	0.55	0.52	0.52	0.50
Industrial waste generation intensity per capita, tonnes per capita	4.3	4.3	5.5	5.3	5.2	5.8	6.4
Industrial waste recovery rate, k	0.3	0.5	0.3	0.2	0.3	0.3	0.3
Solid municipal waste generation intensity per capita, kg per capita	393.9	388.9	392.9	393.5	399.3	400.2	400.2
Water productivity, BYN per m^3	33	43	52	61	63	73	83

3.3. Natural assets

3.3.1. Freshwater resources

	2012	2013	2014	2015	2016	2017	2018
Renewable freshwater resources							
mln m^3 per year[1)]	62 400	73 900	40 900	29 800	42 400	60 400	…
m^3 per inhabitant	6 593	7 807	4 317	3 140	4 462	6 359	…
Water abstraction from groundwater bodies							
mln m^3 per year[1)]	898	874	867	845	818	811	809
m^3 per inhabitant	95	92	91	89	86	85	85
Water abstraction from surface water bodies							
mln m^3 per year[1)]	743	696	704	603	632	586	581
m^3 per inhabitant	79	74	74	64	67	62	61
Water resources exploitation index (by annual discharge), percent	2.6	2.1	3.8	4.9	3.4	2.3	…

[1)] Data of the Ministry of Natural Resources and Environmental Protection.

3.3.2. Land resources[1)]

(at 1 January)

	2013	2014	2015	2016	2017	2018	2019
Total, thousand hectares							
Land resources	20 760	20 760	20 760	20 760	20 760	20 760	20 760
of which:							
agricultural land	8 817	8 726	8 632	8 582	8 540	8 502	8 460
forest land	8 589	8 631	8 653	8 742	8 769	8 774	8 791
land under swamps and water bodies	1 330	1 328	1 309	1 286	1 271	1 273	1 274
other land	2 025	2 075	2 166	2 150	2 180	2 212	2 235
Percent of total							
Land resources	100	100	100	100	100	100	100
of which:							
agricultural land	42.5	42.0	41.6	41.3	41.1	41.0	40.8
forest land	41.4	41.6	41.7	42.1	42.2	42.3	42.3
land under swamps and water bodies	6.4	6.4	6.3	6.2	6.1	6.1	6.1
other land	9.8	10.0	10.4	10.4	10.5	10.7	10.8

[1)] Data of the State Committee for Property.

3.3.3. Forest resources[1)]

	2012	2013	2014	2015	2016	2017	2018
Forested land:							
thsd hectares	8 123.3	8 160.4	8 204.1	8 239.8	8 259.4	8 260.9	8 256.9
hectares per capita	0.86	0.86	0.87	0.87	0.87	0.87	0.87
% of total land area of the country	39.1	39.3	39.5	39.7	39.8	39.8	39.8
Stock of forest vegetation, mln m^3	1 669.3	1 692.7	1 714.3	1 739.9	1 772.5	1 796.0	1 807.9
Marketable timber harvested, mln m^3	18.1	18.5	19.6	18.5	21.1	23.8	28.6
Area of forest felling, thsd hectares	545.0	535.3	523.9	466.9	487.5	451.0	499.1
of which final cutting	28.1	30.5	37.5	31.3	25.1	25.0	27.1

[1)] Data of the Ministry of Forestry.

3.3.4. Fisheries and fish farming

	2012	2013	2014	2015	2016	2017	2018
Yield of fisheries, tonnes							
Total	25 712.2	22 701.1	19 910.4	18 118.1	18 994.1	18 111.4	19 658.1
of which:							
commercial	17 761.6	15 001.9	11 923.6	10 410.9	11 251.3	10 370.2	11 716.9
of which:							
in natural reservoirs	964.0	823.4	760.6	870.7	639.8	725.6	731.0
in artificial reservoirs	16 797.6	14 178.5	11 163.0	9 540.2	10 611.5	9 644.6	10 985.9
of which by species:							
carp	11 765.5	9 879.1	7 210.9	6 454.8	7 888.4	7 343.1	8 163.5
silver carp	1 774.9	1 869.9	1 876.9	1 271.0	541.0	329.3	476.1
salmon fishes	…	54.7	78.6	79.1	338.6	284.4	459.3
amateur	7 950.6	7 699.2	7 986.8	7 707.2	7 742.8	7 741.2	7 941.2
Fish sales, tonnes							
Total	12 262.3	12 912.6	10 507.4	9 448.8	9 006.1	9 595.1	8 980.2
of which:							
in natural reservoirs	954.3	806.1	762.2	857.9	635.1	717.5	683.5
in artificial reservoirs	11 308.0	12 106.5	9 745.2	8 590.9	8 371.0	8 877.6	8 296.7
of which by species:							
carp	8 830.5	9 202.5	7 185.3	5 857.0	6 025.0	7 040.8	6 559.9
silver carp	993.5	1 235.6	1 171.3	1 433.1	758.3	415.4	345.3
salmon fishes	…	52.5	49.7	76.4	337.4	282.2	459.5

Continued

	2012	2013	2014	2015	2016	2017	2018
Fish sales, million rubles (2012 – 2015 - billion rubles)							
Total	233.1	277.3	257.9	276.1	31.9	34.5	33.2
of which:							
in natural reservoirs	12.8	11.9	12.2	14.8	1.4	1.7	1.7
in artificial reservoirs	220.3	265.3	245.7	261.3	30.6	32.8	31.5
of which by species:							
carp	173.5	203.7	183.5	187.3	21.7	24.7	23.5
silver carp	15.8	20.5	23.7	34.2	2.1	1.1	1.0
salmon fishes	…	4.2	3.6	6.5	2.7	2.3	3.7

3.3.5. Wildlife resources[1)]

	2012	2013	2014	2015	2016	2017	2018
Animals							
Mammals – total species	78	78	79	81	81	80	83
of which threatened and endangered species	17	17	20	20	20	20	20
as % of total species	21.8	21.8	25.3	24.7	24.7	25.0	24.1
Birds – total species	319	322	323	325	329	329	332
of which threatened and endangered species	71	71	70	70	70	70	70
as % of total species	22.3	22.0	21.7	21.5	21.3	21.3	21.1
Reptiles – total species	7	7	7	7	7	7	7
of which threatened and endangered species	2	2	2	2	2	2	2
as % of total species	28.6	28.6	28.6	28.6	28.6	28.6	28.6
Amphibians – total species	13	13	13	13	13	13	13
of which threatened and endangered species	2	2	2	2	2	2	2
as % of total species	15.4	15.4	15.4	15.4	15.4	15.4	15.4
Fish and fish-shaped species – total species	68	68	68	68	68	68	68
of which threatened and endangered species	10	10	9	9	9	9	9
as % of total species	14.7	14.7	13.2	13.2	13.2	13.2	13.2

Continued

	2012	2013	2014	2015	2016	2017	2018
				Plants			
Vascular plants – total species	3 030	3 990	4 000	4 003	4 010	4 027	4 029
of which threatened and endangered species	182	182	189	189	189	189	189
as % of total species	6.0	4.6	4.7	4.7	4.7	4.7	4.7
Mosses – total species	433	433	433	433	435	437	437
of which threatened and endangered species	31	31	34	34	34	34	34
as % of total species	7.2	7.2	7.9	7.9	7.8	7.8	7.8
Lichens – total species	554	554	586	630	669	669	670
of which threatened and endangered species	24	24	25	25	25	25	25
as % of total species	4.3	4.3	4.3	4.0	3.7	3.7	3.7
Algae – total species	2 338	2 338	2 338	2 338	2 338	2 338	2 232
of which threatened and endangered species	21	21	21	21	21	21	21
as % of total species	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Fungi – total species	4 100	4 119	4 125	4 143	4 150	4 150	4 150
of which threatened and endangered species	35	35	34	34	34	34	34
as % of total species	0.9	0.8	0.8	0.8	0.8	0.8	0.8

[1)] Data of the National Academy of Sciences of Belarus.

3.4. Environmental quality of life

3.4.1. Average annual concentrations of selected pollutants in the atmosphere of selected cities[1)]

(microgrammes per cubic metre of air)

	2012	2013	2014	2015	2016	2017	2018
Average annual concentrations of fine particulate matter (class PM_{10})							
Brest	27	…	22	15	11	10	20
Vitebsk	…	17	18	16	15	…	…
Gomel	31	28	38	53	…	32	29
Grodno	24	20	21	…	20	19	23
Minsk							
residential area	22	20	20	15	12	10	…
industrial area	34	35	40	35	24	13	12
Mogilev							
residential area	19	18	22	14	15	13	19
industrial area	26	23	34	29	22	22	28
Novopolotsk	19	18	22	17	18	17	20
Polotsk	24	18	16	12	…	11	12
Average annual maximum permissible concentration	40	40	40	40	40	40	40
Average annual concentrations of fine particulate matter (class $PM_{2,5}$)							
Minsk							
residential area	…	…	…	…	17	14	15
Zhlobin	…	…	…	…	12	15	19
Average annual maximum permissible concentration	15	15	15	15	15	15	15
Average annual concentration of ground-level ozone							
Brest	62	65	54	61	58	58	62
Vitebsk	…	…	…	…	…	…	24
Gomel	52	54	44	45	45	47	40
Grodno	57	65	62	57	43	60	45
Minsk	38	49	32	44	40	34-44[2)]	37-38[2)]
Mogilev							
residential area	58	67	64	62	71	67	60
highway	48	…	34	49	…	…	…
industrial area	…	…	…	…	46	44	52
Novopolotsk	55	59	48	55	47	39	34
Polotsk	50	55	47	56	48	44	45
Average annual maximum permissible concentration	90	90	90	90	90	90	90

[1)] Data of the Ministry of Natural Resources and Environmental Protection.

[2)] Monitoring was carried out in two industrial areas.

3.4.2. Wastewater discharge into surface water bodies by degree of treatment[1)]

(million cubic metres)

	2012	2013	2014	2015	2016	2017	2018
Wastewater discharge into surface water bodies	1 015	974	954	870	1 048	1 053	1 034
of which:							
without pre-treatment	345	317	316	246	339	354	341
treated according to standards	666	654	635	618	703	694	689
insufficiently treated	3	3	3	6	6	4	4

[1)] Data of the Ministry of Natural Resources and Environmental Protection.

3.4.3. Access to water supply and sewerage facilities

(based on data of sample household living standards survey; beginning of year; % of total households)

	2013	2014	2015	2016	2017	2018	2019
Share of households living in apartments/ houses equipped with:							
piped water	88.6	89.9	90.5	92.6	93.7	94.7	95.5
hot water supply	80.8	82.7	83.6	85.1	86.1	88.6	89.7
sewerage	86.6	87.8	88.5	91.1	91.9	93.4	93.9

3.5. Economic opportunities

	2015[1)]	2016	2017	2018
Total environmental expenditure, BYR bn[1)]	8 877.1	1 012.2	1 047.3	820.1
of which fixed capital investment spent on environmental protection and rational use of natural resources, BYR bn[1)]	2 158.7	290.8	251.6	112.6
Total environmental expenditure as % of GDP	1.0	1.1	1.0	0.7
Environmental tax – total, BYR bn[1)]	1 292	138	173	194
% of GDP	0.1	0.1	0.2	0.2
% of total tax revenues	0.6	0.6	0.7	0.6

[1)] Data in value terms are provided at BYR billion.

4. ENVIRONMENTAL PROTECTION EXPENDITURE

Total environmental protection expenditure is the amount of environmental protection expenditure and fixed capital investment spent on environmental protection and rational use of natural resources, by areas of environmental protection activities.

Since 2018 for calculation of total environmental protection expenditure data on the current expenditure on environmental protection without value added tax and depreciation of fixed assets intended for environmental protection are used.

Fixed capital investment is total costs spent on acquisition, reproduction and creation of new fixed assets.

The volume of fixed capital investment aimed at environmental protection and rational use of natural resources includes data on funds for the purchase, reproduction and creation of new fixed assets (construction, reconstruction and modernization, which lead to an increase in the initial value of fixed assets, as well as for the purchase of machinery, equipment, vehicles, tools, inventory and others) aimed at the protection and rational use of water resources, the protection of air, protection and rational use of land and so on.

4.1. Total environmental protection expenditure

(at current prices; BYN million (2015 – BYR billion))

	2015	2016	2017	2018
Total environmental protection expenditure	8 877.1	1 012.2	1 047.3	820.1
of which on:				
expenditure on protection of ambient air and climate	2 222.6	303.0	276.7	173.9
of which:				
current expenditure on protection of ambient air and climate	1 088.5	118.9	131.8	128.7
fixed capital investment spent on air protection	1 134.1	184.1	144.9	45.2
expenditure on wastewater management	4 453.2	469.2	509.6	376.2
of which:				
current expenditure on wastewater management	3 871.1	411.8	449.6	336.7
fixed capital investment spent on protection and rational use of water resources	582.0	57.3	60.1	39.6

Continued

	2015	2016	2017	2018
expenditure on waste management	1 284.3	151.5	165.0	184.7
of which:				
current expenditure on waste management	1 207.0	131.1	145.6	180.0
fixed capital investment spent on building constructions, landfills, facilities for industrial waste disposal, utilization, neutralization	77.3	20.4	19.3	4.7
expenditure on protection and remediation of soil, groundwater and surface water	428.5	37.0	30.4	32.1
of which:				
current expenditure on protection and remediation of soil, groundwater and surface water	70.7	8.7	7.8	9.2
fixed capital investment spent on protection and remediation of soil, groundwater and surface water	357.8	28.3	22.6	22.9
expenditure on noise and vibration abatement (excluding workplace protection)	–	–	–	0.5
expenditure on protection of biodiversity and landscapes	136.9	12.3	17.5	16.7
of which:				
current expenditure on protection of biodiversity and landscapes	129.4	11.6	12.8	16.5
fixed capital investment spent on protection of biodiversity and landscapes	7.6	0.7	4.6	0.2
expenditure on protection against radiation (excluding external safety)	–	–	–	0.6
expenditure on research and development	4.3	0.4	0.9	0.9
expenditure on other environmental protection activities	347.3	38.9	47.2	34.5
Total environmental expenditure as % of GDP	1.0	1.1	1.0	0.7

4.2. Total environmental protection expenditure

(at constant prices; % of previous year)

	2016	2017	2018
Total environmental protection expenditure	102.4	94.9	73.2
of which on:			
expenditure on protection of ambient air and climate	123.5	84.7	58.4
expenditure on wastewater management	94.3	99.3	69.2
expenditure on waste management	105.6	99.6	105.5
expenditure on protection and remediation of soil, groundwater and surface water	78.5	76.9	96.3
expenditure on protection of biodiversity and landscapes	75.2	124.1	95.3
expenditure on research and development	77.1	199.9	71.9
expenditure on other environmental protection activities	101.4	109.5	63.8

4.3. Fixed capital investment spent on environmental protection and rational use of natural resources by regions and Minsk city

(at current prices)

	2012	2013	2014	2015	2016	2017	2018
BYN million (2012 – 2015 – BYR billion)							
Republic of Belarus	883.3	963.5	1 261.4	2 158.7	290.8	251.6	112.6
Regions and Minsk city:							
Brest	50.5	96.4	114.2	107.9	6.2	18.9	13.9
Vitebsk	181.8	279.3	681.9	1 286.8	73.3	71.4	52.9
Gomel	218.2	208.5	111.5	264.0	130.3	95.6	5.3
Grodno	39.6	80.0	83.8	3.7	13.6	10.2	5.0
Minsk city	89.9	29.5	49.3	86.4	37.2	15.1	2.9
Minsk	224.5	223.5	188.1	390.3	26.7	28.1	27.5
Mogilev	78.7	46.4	32.7	19.7	3.4	12.3	5.1
As % of total							
Republic of Belarus	100	100	100	100	100	100	100
Regions and Minsk city:							
Brest	5.7	10.0	9.1	5.0	2.1	7.5	12.4
Vitebsk	20.6	29.0	54.1	59.6	25.2	28.4	47.0
Gomel	24.7	21.6	8.8	12.2	44.8	38.0	4.7
Grodno	4.5	8.3	6.6	0.2	4.7	4.0	4.4
Minsk city	10.2	3.1	3.9	4.0	12.8	6.0	2.6
Minsk	25.4	23.2	14.9	18.1	9.2	11.2	24.4
Mogilev	8.9	4.8	2.6	0.9	1.2	4.9	4.5

5. AIR PROTECTION

Air polluting emissions refer to the discharge of contaminants into the atmospheric air from sources of emission. Total air polluting emissions comprise emissions from mobile and stationary sources.

Mobile sources of emission are transport vehicles and self-propelled machines equipped with engines, the operation of which results in air polluting emissions.

Air polluting emissions from mobile sources are estimated in accordance with the Instruction on the procedure of recording of air polluting emissions from mobile sources, based on the amount of consumed fuels and data on the distribution of automotive vehicle fleet in use in the territory of the Republic of Belarus.

The volume of air polluting emissions from mobile sources is estimated by the Ministry of Natural Resources and Environmental Protection.

Stationary sources of emission are sources of emission, the displacement of which is impossible without incommensurable detriment to their function. Stationary sources of emission are subdivided into organised and non-organised.

Organised stationary sources of emission refer to the sources equipped with the units allowing for localisation of air polluting emissions from sources of pollution.

Non-organised stationary sources of emission are sources that are not equipped with the units allowing for localisation of air polluting emissions from sources of pollution.

Beginning from 2015 the volume of air polluting emissions from stationary sources is estimated by the Ministry of Natural Resources and Environmental Protection.

Amount of pollutants from stationary sources of emission includes both substances collected in flue systems, irrespective of whether they are directed or not to gas-treatment units, and substances emitted directly into the air. Pollutants from stationary sources do not include substances contained in technological gases and specially captured for production purposes.

Amount of captured and detoxified air pollutants includes all types of pollutants captured by and detoxified at gas-treatment plants out of the total volume of pollutants coming from stationary sources.

Amount of utilized air pollutants includes captured pollutants that are returned to production and utilized in industry.

Air polluting emissions from stationary and mobile sources are recorded by individual substances (ingredients).

5.1. Main indicators of air polluting emissions

	2012	2013	2014	2015	2016	2017	2018
Air polluting emissions – total, thsd t	1 389.0	1 373.7	1 343.6	1 258.9	1 244.8	1 240.6	1 235.3
of which:							
from mobile sources	955.8	928.4	880.8	800.6	791.7	787.2	782.0
from stationary sources	433.2	445.3	462.8	458.3	453.1	453.4	453.3
Air pollutants from stationary sources, thsd t	3 124.2	3 332.0	4 108.5	3 645.4	3 374.4	3 072.6	3 027.4
Captured and detoxified air pollutants from stationary sources, thsd t	2 691.0	2 886.7	3 645.7	3 187.1	2 921.4	2 619.2	2 574.1
Share of captured and detoxified air pollutants in total air polluting emissions from stationary sources, %	86.1	86.6	88.7	87.4	86.6	85.2	85.0
Reduction of air polluting emissions after emission-reducing activities, thsd t	3.1	26.1	14.2	5.8	19.3	4.9	4.8

Continued

	2012	2013	2014	2015	2016	2017	2018
As percentage of the previous year							
Air polluting emissions – total	105.6	98.9	97.8	93.7	98.9	99.7	99.6
of which:							
from mobile sources	101.2	97.1	94.9	90.9	98.9	99.4	99.3
from stationary sources	116.7	102.8	103.9	99.0	98.9	100.1	100.0
Air pollutants from stationary sources	98.5	106.7	123.3	88.7	92.6	91.1	98.5
Captured and detoxified air pollutants from stationary sources	96.1	107.3	126.3	87.4	91.7	89.7	98.3
As percentage of 2010							
Air polluting emissions – total	105.3	104.1	101.8	95.4	94.4	94.0	93.6
of which:							
from mobile sources	101.4	98.5	93.5	85.0	84.0	83.5	83.0
from stationary sources	114.9	118.1	122.7	121.5	120.2	120.2	120.2
Air pollutants from stationary sources	96.4	102.8	126.8	112.5	104.2	94.8	93.4
Captured and detoxified air pollutants from stationary sources	94.0	100.8	127.4	111.3	102.1	91.5	89.9

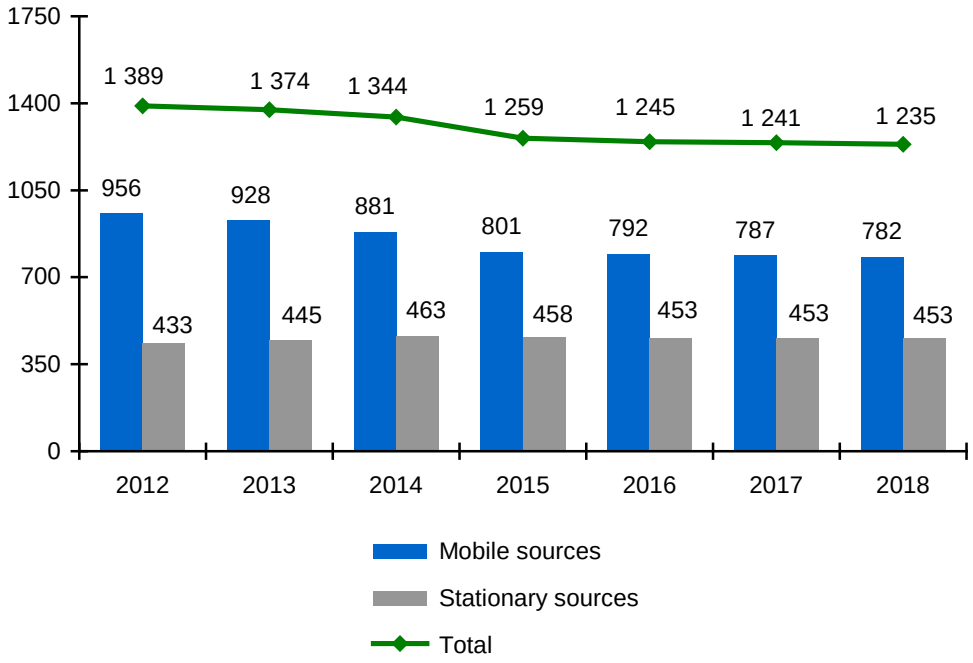
5.2. Air polluting emissions by regions and Minsk city

(thousand tonnes)

	2012	2013	2014	2015	2016	2017	2018
Air polluting emissions – total							
Republic of Belarus	1 389.0	1 373.7	1 343.6	1 258.9	1 244.8	1 240.6	1 235.3
Regions and Minsk city:							
Brest	168.6	177.6	179.6	166.6	169.0	166.7	171.3
Vitebsk	223.8	226.1	212.5	208.4	201.4	190.6	195.7
Gomel	222.1	225.9	215.3	205.6	207.7	203.4	197.0
Grodno	161.6	170.0	166.2	154.3	148.9	154.5	152.6
Minsk city	236.5	185.6	181.2	146.4	140.0	155.1	153.9
Minsk	242.5	253.5	256.3	255.6	258.8	247.2	247.6
Mogilev	133.8	134.9	132.5	122.1	118.9	123.1	117.2
of which:							
from mobile sources							
Republic of Belarus	955.8	928.4	880.8	800.6	791.7	787.2	782.0
Regions and Minsk city:							
Brest	133.8	138.4	127.8	116.3	117.5	116.1	118.2
Vitebsk	113.4	120.3	110.0	96.4	93.5	88.3	88.2
Gomel	126.7	123.2	113.7	106.0	103.1	97.8	96.6
Grodno	113.3	116.8	107.4	97.8	95.1	94.2	93.8
Minsk city	209.9	160.5	157.7	126.1	121.9	136.8	135.6
Minsk	173.3	182.5	181.8	179.7	183.9	178.6	177.0
Mogilev	85.4	86.7	82.4	78.3	76.7	75.4	72.6
from stationary sources							
Republic of Belarus	433.2	445.3	462.8	458.3	453.1	453.4	453.3
Regions and Minsk city:							
Brest	34.8	39.2	51.8	50.3	51.5	50.6	53.1
Vitebsk	110.4	105.8	102.5	112.0	107.9	102.3	107.5
Gomel	95.4	102.7	101.6	99.6	104.6	105.6	100.4
Grodno	48.3	53.2	58.8	56.5	53.8	60.3	58.8
Minsk city	26.6	25.1	23.5	20.3	18.1	18.3	18.3
Minsk	69.2	71.0	74.5	75.9	74.9	68.6	70.6
Mogilev	48.4	48.2	50.1	43.8	42.2	47.7	44.6

5.3. Dynamics of air polluting emissions from stationary and mobile sources

(thousand tonnes)



5.4. Share of air polluting emissions from mobile sources by regions and Minsk city

(as % of total air polluting emissions)

	2012	2013	2014	2015	2016	2017	2018
Republic of Belarus	68.8	67.6	65.6	63.6	63.6	63.5	63.3
Regions and Minsk city:							
Brest	79.4	77.9	71.2	69.8	69.5	69.6	69.0
Vitebsk	50.7	53.2	51.8	46.3	46.4	46.3	45.1
Gomel	57.0	54.5	52.8	51.6	49.6	48.1	49.0
Grodno	70.1	68.7	64.6	63.4	63.9	61.0	61.5
Minsk city	88.8	86.5	87.0	86.1	87.1	88.2	88.1
Minsk	71.5	72.0	70.9	70.3	71.1	72.2	71.5
Mogilev	63.8	64.3	62.2	64.1	64.5	61.3	61.9

5.5. Air polluting emissions from mobile sources per inhabitant by regions and Minsk city

(kilogrammes)

	2012	2013	2014	2015	2016	2017	2018
Republic of Belarus	101	98	93	84	83	83	82
Regions and Minsk city:							
Brest	96	100	92	84	85	84	86
Vitebsk	94	100	92	81	79	75	75
Gomel	89	86	80	74	73	69	68
Grodno	107	111	102	93	91	90	90
Minsk city	111	84	82	65	62	69	68
Minsk	124	130	129	127	129	125	124
Mogilev	79	81	77	73	72	71	69

5.6. Air polluting emissions from mobile sources per square kilometre by regions and Minsk city

(kilogrammes)

	2012	2013	2014	2015	2016	2017	2018
Republic of Belarus	4 604	4 472	4 243	3 856	3 814	3 792	3 767
Regions and Minsk city:							
Brest	4 080	4 221	3 898	3 547	3 584	3 541	3 605
Vitebsk	2 832	3 004	2 747	2 407	2 335	2 205	2 202
Gomel	3 139	3 052	2 816	2 626	2 554	2 422	2 393
Grodno	4 509	4 648	4 274	3 892	3 785	3 749	3 733
Minsk city	603 135	461 207	453 161	362 356	350 287	393 103	387 429
Minsk	4 350	4 580	4 562	4 510	4 615	4 482	4 442
Mogilev	2 937	2 983	2 835	2 694	2 639	2 594	2 498

5.7. Air polluting emissions from mobile sources by selected ingredients by regions and Minsk city

(thousand tonnes)

	2012	2013	2014	2015	2016	2017	2018
Total air polluting emissions							
Republic of Belarus	955.8	928.4	880.8	800.6	791.7	787.2	782.0
Regions and Minsk city:							
Brest	133.8	138.4	127.8	116.3	117.5	116.1	118.2
Vitebsk	113.4	120.3	110.0	96.4	93.5	88.3	88.2
Gomel	126.7	123.2	113.7	106.0	103.1	97.8	96.6
Grodno	113.3	116.8	107.4	97.8	95.1	94.2	93.8
Minsk city	209.9	160.5	157.7	126.1	121.9	136.8	135.6
Minsk	173.3	182.5	181.8	179.7	183.9	178.6	177.0
Mogilev	85.4	86.7	82.4	78.3	76.7	75.4	72.6
of which: carbon monoxide							
Republic of Belarus	618.2	604.4	576.5	526.9	521.3	514.0	508.5
Regions and Minsk city:							
Brest	84.3	88.1	81.2	74.3	74.9	73.6	74.6
Vitebsk	71.2	77.0	70.7	62.3	60.6	56.5	55.9
Gomel	80.2	78.2	71.7	67.6	65.8	61.5	60.5
Grodno	72.2	75.2	69.4	63.6	61.8	60.6	60.0
Minsk city	142.8	109.2	108.4	86.0	83.5	93.3	91.6
Minsk	113.0	120.7	121.3	121.4	124.2	119.2	118.6
Mogilev	54.6	56.0	53.8	51.7	50.5	49.3	47.3
nitrogen dioxide							
Republic of Belarus	105.7	101.7	95.1	85.1	84.0	85.4	85.6
Regions and Minsk city:							
Brest	15.7	16.0	14.8	13.3	13.5	13.5	13.9
Vitebsk	13.4	13.7	12.4	10.7	10.3	10.0	10.2
Gomel	14.7	14.3	13.4	12.1	11.8	11.6	11.6
Grodno	13.0	13.2	12.0	10.7	10.4	10.6	10.7
Minsk city	20.4	15.8	15.0	12.3	11.7	13.3	13.5
Minsk	18.7	19.1	18.6	17.7	18.2	18.3	17.8
Mogilev	9.7	9.6	8.9	8.3	8.1	8.1	7.9

Continued

	2012	2013	2014	2015	2016	2017	2018
				sulphur dioxide			
Republic of Belarus	2.7	0.3	0.2	0.1	0.0	0.1	0.1
Regions and Minsk city:							
Brest	0.4	0.1	0.0	0.0	0.0	0.0	0.0
Vitebsk	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Gomel	0.4	0.0	0.0	0.0	0.0	0.0	0.0
Grodno	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Minsk city	0.6	0.1	0.1	0.0	0.0	0.0	0.0
Minsk	0.5	0.1	0.1	0.1	0.0	0.1	0.1
Mogilev	0.2	0.0	0.0	0.0	0.0	0.0	0.0
				hydrocarbons			
Republic of Belarus	198.5	192.7	182.0	164.5	163.1	164.0	164.2
Regions and Minsk city:							
Brest	28.6	29.4	27.3	24.7	25.1	25.0	25.6
Vitebsk	24.2	25.4	23.1	20.1	19.5	18.7	18.9
Gomel	26.8	26.2	24.4	22.5	21.9	21.1	21.0
Grodno	23.9	24.5	22.5	20.4	19.9	19.9	20.0
Minsk city	41.4	31.8	30.9	25.0	24.1	27.3	27.5
Minsk	35.7	37.2	36.7	35.9	36.8	36.3	36.0
Mogilev	17.9	18.2	17.1	16.0	15.8	15.7	15.2
				soot			
Republic of Belarus	30.8	29.3	27.0	23.9	23.3	23.7	23.6
Regions and Minsk city:							
Brest	4.9	4.8	4.5	4.0	4.0	4.0	4.1
Vitebsk	4.3	4.2	3.8	3.3	3.1	3.1	3.2
Gomel	4.7	4.5	4.2	3.8	3.6	3.6	3.5
Grodno	3.9	3.9	3.5	3.1	3.0	3.1	3.1
Minsk city	4.6	3.6	3.3	2.8	2.6	2.9	3.0
Minsk	5.5	5.4	5.1	4.6	4.7	4.7	4.5
Mogilev	2.9	2.9	2.6	2.3	2.3	2.3	2.2

5.8. Air polluting emissions from stationary sources per inhabitant by regions and Minsk city

(kilogrammes)

	2012	2013	2014	2015	2016	2017	2018
Republic of Belarus	46	47	49	48	48	48	48
Regions and Minsk city:							
Brest	25	28	37	36	37	37	38
Vitebsk	91	88	85	94	91	86	91
Gomel	67	72	71	70	74	74	71
Grodno	46	50	56	54	51	58	56
Minsk city	14	13	12	10	9	9	9
Minsk	49	51	53	54	53	48	49
Mogilev	45	45	47	41	40	45	42

5.9. Air polluting emissions from stationary sources per square kilometre by regions and Minsk city

(kilogrammes)

	2012	2013	2014	2015	2016	2017	2018
Republic of Belarus	2 087	2 145	2 229	2 208	2 182	2 184	2 184
Regions and Minsk city:							
Brest	1 061	1 196	1 580	1 533	1 571	1 545	1 621
Vitebsk	2 758	2 643	2 560	2 796	2 695	2 553	2 685
Gomel	2 363	2 543	2 517	2 467	2 591	2 617	2 486
Grodno	1 924	2 117	2 340	2 248	2 142	2 400	2 339
Minsk city	76 353	72 198	67 517	58 351	51 928	52 618	52 154
Minsk	1 738	1 781	1 870	1 905	1 879	1 723	1 773
Mogilev	1 667	1 660	1 722	1 506	1 453	1 639	1 534

5.10. Air polluting emissions from stationary sources by selected ingredients by regions and Minsk city

(thousand tonnes)

	2012	2013	2014	2015	2016	2017	2018
Total							
Republic of Belarus	433.2	445.3	462.8	458.3	453.1	453.4	453.3
Regions and Minsk city:							
Brest	34.8	39.2	51.8	50.3	51.5	50.6	53.1
Vitebsk	110.4	105.8	102.5	112.0	107.9	102.3	107.5
Gomel	95.4	102.7	101.6	99.6	104.6	105.6	100.4
Grodno	48.3	53.2	58.8	56.5	53.8	60.3	58.8
Minsk city	26.6	25.1	23.5	20.3	18.1	18.3	18.3
Minsk	69.2	71.0	74.5	75.9	74.9	68.6	70.6
Mogilev	48.4	48.2	50.1	43.8	42.2	47.7	44.6
of which: solids							
Republic of Belarus	37.4	36.1	34.9	30.1	27.4	27.0	26.1
Regions and Minsk city:							
Brest	4.5	4.3	4.3	3.3	3.2	3.2	2.6
Vitebsk	6.0	6.0	6.2	5.6	5.1	4.9	4.9
Gomel	5.5	5.5	5.4	4.4	4.3	4.7	4.3
Grodno	5.8	5.6	5.2	5.0	4.4	4.3	4.0
Minsk city	2.4	2.2	2.0	1.6	1.4	1.4	1.4
Minsk	7.4	6.9	6.4	6.1	5.1	5.0	5.2
Mogilev	5.8	5.7	5.5	4.1	3.9	3.6	3.8
sulphur dioxide							
Republic of Belarus	63.7	48.5	50.3	56.8	53.3	47.6	47.0
Regions and Minsk city:							
Brest	2.1	1.2	1.3	1.3	1.2	0.9	1.1
Vitebsk	31.5	21.0	23.0	27.5	25.4	22.2	23.6
Gomel	19.6	19.9	19.8	21.8	20.6	19.6	17.3
Grodno	2.1	0.9	0.9	1.0	1.7	1.2	1.0
Minsk city	2.0	0.9	1.0	0.8	0.6	0.4	0.7
Minsk	4.5	3.3	2.4	3.1	2.7	2.3	2.2
Mogilev	1.9	1.3	1.9	1.3	1.3	1.1	1.0

Continued

	2012	2013	2014	2015	2016	2017	2018
carbon monoxide							
Republic of Belarus	78.6	81.9	80.9	75.4	73.1	75.1	76.9
Regions and Minsk city:							
Brest	6.6	6.3	6.2	5.5	5.5	6.0	5.7
Vitebsk	12.8	14.5	14.4	14.6	14.4	13.9	14.1
Gomel	15.6	16.8	15.9	12.9	15.1	15.7	15.9
Grodno	8.7	8.3	8.8	9.9	7.8	9.7	10.1
Minsk city	11.0	10.1	10.3	8.5	7.0	7.0	7.0
Minsk	15.5	17.9	17.1	17.4	16.5	15.4	16.2
Mogilev	8.3	7.8	8.2	6.6	6.8	7.3	7.9
nitrogen dioxide							
Republic of Belarus	52.8	55.7	54.3	49.3	50.8	48.8	45.8
Regions and Minsk city:							
Brest	3.5	3.0	3.8	4.0	3.7	3.6	2.9
Vitebsk	11.0	11.7	9.4	9.6	10.3	10.1	10.6
Gomel	9.7	10.0	9.1	8.7	9.5	9.6	7.9
Grodno	7.5	8.7	9.8	8.5	9.3	8.1	6.5
Minsk city	5.2	6.0	5.4	5.0	5.2	5.1	5.6
Minsk	6.5	5.8	6.4	5.6	5.2	5.1	5.3
Mogilev	9.5	10.4	10.5	8.0	7.6	7.2	7.1
non–methane volatile organic compounds							
Republic of Belarus	70.0	60.9	55.5	54.0	54.0	53.8	54.8
Regions and Minsk city:							
Brest	2.2	2.2	2.4	1.9	1.5	1.9	1.9
Vitebsk	34.9	27.1	25.3	25.8	25.2	26.2	27.9
Gomel	16.5	14.8	13.6	13.8	14.0	13.1	12.6
Grodno	3.7	4.1	3.5	3.0	3.2	3.3	3.3
Minsk city	4.7	4.3	3.3	2.8	2.3	3.0	2.2
Minsk	3.6	4.1	3.5	2.9	3.5	2.9	3.2
Mogilev	4.5	4.4	3.9	3.9	4.3	3.4	3.7

Continued

	2012	2013	2014	2015	2016	2017	2018
hydrocarbons							
Republic of Belarus	99.9	125.8	149.1	157.7	158.8	166.1	166.9
Regions and Minsk city:							
Brest	13.0	18.3	28.0	28.8	30.7	29.6	31.7
Vitebsk	9.4	19.2	18.7	23.2	21.5	19.6	21.4
Gomel	23.4	29.9	30.7	31.8	34.3	36.3	36.2
Grodno	14.9	19.4	23.8	22.5	21.2	26.5	26.4
Minsk city	0.5	0.6	0.5	0.6	0.5	0.5	0.5
Minsk	24.1	23.5	30.7	33.7	34.8	30.9	31.8
Mogilev	14.6	14.8	16.6	17.2	15.7	22.5	18.9
nitrogen oxide							
Republic of Belarus	6.2	6.5	6.0	5.7	5.9	5.8	5.7
Regions and Minsk city:							
Brest	0.5	0.5	0.6	0.7	0.6	0.6	0.5
Vitebsk	1.3	1.5	1.1	1.1	1.4	1.4	1.6
Gomel	0.9	0.9	0.9	0.8	0.9	0.9	0.6
Grodno	0.6	0.7	0.6	0.7	0.7	0.8	0.8
Minsk city	0.7	0.9	0.8	0.8	0.8	0.8	0.9
Minsk	1.2	1.1	1.2	1.1	1.0	1.0	1.0
Mogilev	0.8	0.9	0.8	0.5	0.4	0.4	0.4
other							
Republic of Belarus	24.7	29.9	31.7	29.2	29.7	29.2	30.1
Regions and Minsk city:							
Brest	2.3	3.5	5.3	4.8	5.1	4.9	6.7
Vitebsk	3.5	4.8	4.4	4.7	4.7	3.9	3.6
Gomel	4.2	4.8	6.1	5.5	5.9	5.8	5.6
Grodno	5.1	5.4	6.1	5.9	5.5	6.4	6.6
Minsk city	0.1	0.1	0.1	0.2	0.1	0.1	0.1
Minsk	6.4	8.4	6.9	6.0	6.1	6.0	5.7
Mogilev	3.0	2.9	2.7	2.1	2.3	2.1	1.8

5.11. Air polluting emissions from stationary sources from fuel combustion by selected ingredients by regions and Minsk city

(thousand tonnes)

	2012	2013	2014	2015	2016	2017	2018
Total							
Republic of Belarus	96.0	90.1	83.0	83.1	89.9	87.2	89.3
Regions and Minsk city:							
Brest	10.1	8.6	9.7	9.4	8.7	8.2	7.8
Vitebsk	22.6	21.5	20.6	20.8	26.6	22.8	24.2
Gomel	13.0	12.2	11.3	9.5	12.0	12.9	12.7
Grodno	9.7	8.2	7.3	7.3	7.7	8.7	8.1
Minsk city	8.9	8.8	7.9	7.1	7.3	7.1	8.0
Minsk	20.5	21.3	16.4	20.7	19.6	18.7	20.0
Mogilev	11.2	9.5	9.9	8.4	8.2	8.8	8.4
of which: solids							
Republic of Belarus	11.8	11.5	10.9	9.6	9.2	8.5	8.8
Regions and Minsk city:							
Brest	1.7	1.8	1.7	1.3	1.2	1.1	1.0
Vitebsk	2.6	2.2	2.3	2.2	2.1	1.9	2.0
Gomel	1.5	1.7	1.7	1.0	1.0	1.2	1.1
Grodno	1.2	1.0	0.9	0.9	0.8	0.8	0.9
Minsk city	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minsk	2.8	2.8	2.4	2.5	2.3	2.2	2.4
Mogilev	2.0	2.0	1.9	1.7	1.8	1.4	1.5
sulphur dioxide							
Republic of Belarus	16.9	7.7	8.5	8.6	12.5	7.9	8.1
Regions and Minsk city:							
Brest	1.7	0.8	0.9	1.0	0.9	0.6	0.8
Vitebsk	4.2	1.3	3.0	2.3	5.0	1.8	2.1
Gomel	2.2	1.1	0.9	0.9	2.1	2.0	1.7
Grodno	1.6	0.4	0.5	0.4	0.8	0.5	0.4
Minsk city	1.7	0.6	0.8	0.6	0.4	0.2	0.5
Minsk	4.1	2.9	1.9	2.8	2.4	2.0	1.8
Mogilev	1.4	0.6	0.6	0.6	0.9	0.8	0.7

Continued

	2012	2013	2014	2015	2016	2017	2018
carbon monoxide							
Republic of Belarus	31.7	33.8	28.8	32.3	32.9	34.6	35.3
Regions and Minsk city:							
Brest	3.2	2.9	2.9	2.6	2.7	2.8	2.8
Vitebsk	6.9	7.9	7.9	8.4	9.3	9.0	8.7
Gomel	4.8	4.6	4.3	3.6	4.2	4.5	5.1
Grodno	3.6	3.0	2.8	3.0	3.0	4.0	3.3
Minsk city	2.0	1.9	1.7	1.5	1.3	1.5	1.5
Minsk	7.5	10.1	5.8	10.3	9.6	9.2	10.3
Mogilev	3.8	3.2	3.4	2.8	2.9	3.5	3.7
nitrogen dioxide							
Republic of Belarus	29.2	29.8	27.1	25.6	26.4	27.0	26.5
Regions and Minsk city:							
Brest	2.8	2.4	3.2	3.4	3.2	3.1	2.4
Vitebsk	7.7	8.6	6.3	6.3	7.1	7.2	7.7
Gomel	3.8	3.8	3.3	3.0	3.6	4.0	3.4
Grodno	2.3	2.5	2.1	1.9	1.9	2.2	2.1
Minsk city	4.4	5.3	4.7	4.3	4.7	4.6	5.1
Minsk	5.1	4.2	4.5	4.0	3.7	3.7	3.8
Mogilev	3.2	3.0	3.0	2.6	2.2	2.3	2.1

5.12. Air polluting emissions from stationary sources from waste treatment and utilization, technological and other processes by selected ingredients by regions and Minsk city

(thousand tonnes)

	2012	2013	2014	2015	2016	2017	2018
Total							
Republic of Belarus	337.2	355.2	379.8	375.2	363.1	366.2	364.0
Regions and Minsk city:							
Brest	24.7	30.5	42.1	40.9	42.8	42.4	45.4
Vitebsk	87.8	84.4	82.0	91.2	81.4	79.4	83.3
Gomel	82.4	90.5	90.3	90.1	92.6	92.8	87.7
Grodno	38.6	45.0	51.5	49.2	46.2	51.6	50.6
Minsk city	17.7	16.4	15.6	13.2	10.8	11.2	10.3
Minsk	48.7	49.7	58.1	55.2	55.3	49.9	50.6
Mogilev	37.2	38.8	40.2	35.4	34.1	38.8	36.2
of which: solids							
Republic of Belarus	25.6	24.6	24.0	20.5	18.2	18.5	17.3
Regions and Minsk city:							
Brest	2.8	2.5	2.6	2.0	2.0	2.1	1.7
Vitebsk	3.5	3.7	3.9	3.4	3.0	3.0	2.9
Gomel	4.0	3.8	3.7	3.4	3.3	3.5	3.2
Grodno	4.6	4.5	4.3	4.1	3.5	3.4	3.1
Minsk city	2.3	2.2	2.0	1.6	1.4	1.4	1.3
Minsk	4.7	4.1	4.0	3.6	2.8	2.9	2.8
Mogilev	3.7	3.7	3.5	2.4	2.1	2.1	2.3
sulphur dioxide							
Republic of Belarus	46.8	40.8	41.8	48.2	40.8	39.7	38.9
Regions and Minsk city:							
Brest	0.4	0.4	0.4	0.3	0.3	0.2	0.3
Vitebsk	27.4	19.6	19.9	25.2	20.4	20.5	21.5
Gomel	17.4	18.8	18.9	20.9	18.5	17.6	15.6
Grodno	0.5	0.5	0.5	0.6	0.9	0.6	0.6
Minsk city	0.3	0.2	0.2	0.2	0.2	0.2	0.2
Minsk	0.4	0.5	0.5	0.3	0.3	0.3	0.4
Mogilev	0.4	0.7	1.4	0.7	0.4	0.3	0.4

Continued

	2012	2013	2014	2015	2016	2017	2018
carbon monoxide							
Republic of Belarus	46.9	48.1	52.1	43.1	40.2	40.5	41.6
Regions and Minsk city:							
Brest	3.4	3.4	3.2	2.9	2.8	3.3	3.0
Vitebsk	5.9	6.6	6.5	6.2	5.2	4.9	5.3
Gomel	10.8	12.2	11.6	9.2	10.9	11.2	10.8
Grodno	5.2	5.3	6.0	6.8	4.8	5.7	6.8
Minsk city	9.1	8.2	8.7	7.1	5.7	5.5	5.5
Minsk	8.0	7.8	11.3	7.1	6.9	6.2	6.0
Mogilev	4.5	4.6	4.8	3.8	3.9	3.7	4.2
nitrogen dioxide							
Republic of Belarus	23.5	25.9	27.2	23.8	24.4	21.9	19.3
Regions and Minsk city:							
Brest	0.6	0.6	0.5	0.5	0.5	0.5	0.5
Vitebsk	3.3	3.2	3.1	3.3	3.2	2.9	2.9
Gomel	6.0	6.2	5.8	5.7	5.9	5.6	4.5
Grodno	5.2	6.3	7.7	6.6	7.4	6.0	4.4
Minsk city	0.8	0.8	0.7	0.7	0.5	0.5	0.5
Minsk	1.5	1.6	1.9	1.6	1.5	1.4	1.5
Mogilev	6.3	7.4	7.5	5.5	5.4	4.9	5.0

5.13. Air polluting emissions from stationary sources by economic activity[1)]

(thousand tonnes)

	2016	2017	2018					
			total	of which by ingredient				
				solid	sulphur dioxide	carbon mon-oxide	nitrogen dioxide	hydro-carbons
Republic of Belarus	453.1	453.4	453.3	26.1	47.0	76.9	45.8	166.9
of which:								
Agriculture, forestry and fishing	163.2	165.3	168.6	3.1	0.4	2.2	0.8	135.8
Mining	5.0	4.6	4.7	1.5	0.0	0.8	0.7	0.0
Manufacturing	176.8	175.2	173.5	13.0	41.2	43.3	21.8	4.5
of which:								
Manufacture of food products, beverages and tobacco products	15.8	15.9	16.0	1.5	1.4	7.2	1.4	2.7
Manufacture of textile articles, wearing apparel, articles of leather and fur	3.5	3.6	3.5	1.0	0.1	0.8	0.5	0.1
Manufacture of products of wood and paper; printing and reproduction of recorded media	7.5	8.8	8.5	1.6	0.6	2.9	1.3	0.3
Manufacture of coke and refined petroleum products	84.0	83.9	84.1	1.4	36.4	8.4	5.2	0.4
Manufacture of chemicals and chemical products	13.9	13.1	14.0	1.9	1.3	2.3	2.2	0.3
Manufacture of basic pharmaceuticals and medicinal products	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Manufacture of rubber and plastics products, of other non-metallic mineral products	26.5	23.5	21.7	2.2	0.7	7.8	8.7	0.1

Continued

	2016	2017	2018					
			total	of which by ingredient				
				solid	sulphur dioxide	carbon mon-oxide	nitrogen dioxide	hydro-carbons
Manufacture of basic metals; manufacture of fabricated metal products, except machinery and equipment	11.4	11.7	10.6	1.2	0.4	7.2	1.4	0.0
Manufacture of computer, electronic and optical products	0.3	0.4	0.4	0.0	0.0	0.1	0.1	0.0
Manufacture of electrical equipment	0.6	0.5	0.5	0.0	0.0	0.2	0.1	0.0
Manufacture of machinery and equipment n.e.c.	8.9	8.9	8.9	1.2	0.2	4.8	0.6	0.3
Manufacture of transport vehicles and equipment	2.1	2.7	3.1	0.6	0.0	0.9	0.2	0.1
Other manufacturing; repair and installation of machinery and equipment	2.2	2.0	2.3	0.3	0.0	0.7	0.2	0.2
Electricity, gas, steam, hot water and air conditioning supply	67.7	61.8	62.1	6.2	4.6	18.9	20.4	5.3
Water supply; waste management and remediation activities	8.6	8.8	9.8	0.1	0.0	0.3	0.1	8.2
Construction	4.3	4.6	4.4	1.4	0.3	2.1	0.3	0.0
Wholesale and retail trade; repair of motor vehicles and motorcycles	2.5	2.2	2.9	0.1	0.1	0.2	0.1	0.5
Transportation and storage, postal and courier activities	23.0	29.2	25.5	0.3	0.2	8.6	1.5	12.4
Real estate activities	0.4	0.5	0.4	0.1	0.0	0.1	0.0	0.1
Administrative and support service activities	0.5	0.1	0.5	0.2	0.0	0.3	0.0	0.0
Public administration	0.4	0.4	0.4	0.1	0.2	0.1	0.0	0.0

5.14. Air polluting emissions from stationary sources by regions, cities and districts

(thousand tonnes)

	2012	2013	2014	2015	2016	2017	2018
Republic of Belarus	433.2	445.3	462.8	458.3	453.1	453.4	453.3
Brest region	34.8	39.2	51.8	50.3	51.5	50.6	53.1
Brest, city of	3.5	3.7	3.3	3.3	3.1	2.8	2.6
District:							
Baranovichy	3.5	3.4	4.8	3.0	3.5	4.0	4.1
Bereza	3.7	2.4	4.9	4.8	5.0	4.3	3.8
Brest	2.0	1.8	2.3	2.0	2.2	2.5	2.0
Gantsevichy	0.2	0.2	0.7	0.6	0.6	0.8	1.3
Drogichin	1.9	2.7	2.5	2.7	2.7	1.0	1.4
Zhabinka	2.6	2.6	3.0	3.4	3.2	3.9	3.7
Ivanovo	3.4	3.2	3.3	2.8	2.8	3.0	2.6
Ivatsevichy	2.1	2.4	3.1	2.6	2.3	2.4	1.9
Kamenets	2.5	2.9	3.9	4.0	4.3	5.3	4.9
Kobrin	2.0	1.7	3.1	3.4	2.8	3.4	3.3
Luninets	1.8	3.6	3.3	2.9	3.3	3.2	2.8
Lyakhovichy	1.1	1.4	2.2	2.7	2.2	2.6	2.8
Malorita	0.4	1.1	1.6	1.9	1.8	0.6	1.5
Pinsk	2.6	3.9	3.9	4.9	6.2	4.7	6.3
Pruzhany	0.9	1.5	4.0	3.9	3.9	3.6	4.6
Stolin	0.6	0.5	1.8	1.5	1.6	2.8	3.4

Continued

	2012	2013	2014	2015	2016	2017	2018
Vitebsk region	110.4	105.8	102.5	112.0	107.9	102.3	107.5
Vitebsk, city of	4.8	3.8	3.6	3.5	3.1	3.1	3.5
District:							
Beshenkovichy	0.4	0.5	0.5	0.6	0.5	0.6	0.7
Braslav	0.6	2.3	1.6	2.0	1.5	1.1	1.3
Verkhnedvinsk	1.2	1.6	2.1	2.5	2.3	2.4	1.7
Vitebsk	4.0	4.1	3.9	3.2	3.1	3.3	1.6
Glubokoye	1.4	2.4	2.1	3.3	3.4	3.2	3.2
Gorodok	1.0	1.5	1.7	1.6	1.8	1.1	1.0
Dokshitsy	0.8	1.1	1.3	1.5	0.9	0.9	1.0
Dubrovno	0.8	1.8	1.8	1.9	1.7	1.8	2.1
Lepel	0.9	1.4	1.3	1.3	1.7	1.4	1.1
Liozno	0.9	1.2	1.5	1.9	1.8	1.4	1.6
Miory	0.5	1.7	1.6	2.3	2.2	1.8	1.9
Orsha	6.6	8.0	7.5	8.7	8.2	7.4	9.0
Polotsk	71.3	57.5	56.1	61.3	55.0	55.2	57.8
Postavy	1.3	1.3	1.3	1.4	1.3	1.2	1.6
Rossony	0.4	0.5	0.5	0.7	0.7	0.4	0.5
Senno	0.8	0.9	1.0	1.0	0.9	0.4	0.7
Tolochin	0.7	1.6	1.6	1.3	1.7	1.9	1.8
Ushachy	0.4	0.8	0.8	0.8	0.8	0.8	0.7
Chashniki	10.0	9.5	8.4	9.0	13.4	10.8	12.6
Sharkovshchina	0.2	0.3	0.7	0.7	0.7	0.6	0.8
Shumilino	1.3	2.1	1.9	1.5	1.3	1.5	1.5

Continued

	2012	2013	2014	2015	2016	2017	2018
Gomel region	95.4	102.7	101.6	99.6	104.6	105.6	100.4
Gomel, city of	9.2	7.2	8.6	7.1	8.9	8.6	6.8
District:							
Bragin	0.7	0.8	0.9	0.1	0.2	0.6	0.7
Buda-Koshelyovo	1.9	3.3	3.6	4.0	3.2	3.8	3.9
Vetka	1.6	1.6	1.8	1.6	2.4	2.2	2.0
Gomel	5.2	7.0	5.4	5.2	5.2	5.1	5.0
Dobrush	1.5	2.0	2.1	2.1	3.2	2.6	2.6
Yelsk	0.2	0.2	0.8	0.2	1.0	0.9	1.4
Zhitkovichy	1.2	1.8	2.5	2.2	2.3	2.6	2.3
Zhlobin	13.1	12.5	11.5	10.9	13.5	14.7	13.6
Kalinkovichy	1.3	1.8	1.9	2.1	2.8	2.8	2.6
Korma	0.6	1.7	1.6	1.4	1.8	1.8	1.7
Lelchitsy	0.2	0.2	1.8	1.8	1.3	1.8	1.8
Loyev	1.0	0.9	0.9	0.7	0.1	0.2	0.6
Mozyr	38.3	38.4	38.2	40.8	38.2	37.6	33.7
Narovlya	0.2	0.5	0.4	0.3	0.3	0.3	0.3
Oktyabrsky	0.6	1.0	1.3	1.5	1.7	1.6	1.2
Petrikov	0.8	1.7	1.3	1.9	2.0	2.9	2.2
Rechitsa	7.1	8.5	6.0	5.8	6.4	6.3	6.9
Rogachev	3.5	3.6	3.7	3.4	3.8	3.2	4.2
Svetlogorsk	5.3	5.6	5.0	4.3	3.7	3.3	4.1
Khoyniki	0.9	1.3	0.8	1.1	1.5	1.6	1.7
Chechersk	1.0	1.3	1.3	1.3	1.2	1.2	1.5

Continued

	2012	2013	2014	2015	2016	2017	2018
Grodno region	48.3	53.2	58.8	56.5	53.8	60.3	58.8
Grodno, city of	11.9	10.6	10.0	9.7	9.6	9.4	9.8
District:							
Berestovitsa	0.8	0.8	1.2	1.7	2.0	2.1	1.6
Volkovysk	7.6	10.2	10.9	10.6	11.4	9.4	7.8
Voronovo	0.9	1.8	1.4	1.8	1.4	2.1	2.0
Grodno	4.9	5.1	6.9	6.7	5.8	6.7	6.8
Dyatlovo	0.3	0.4	0.5	1.0	1.1	1.7	1.6
Zelva	0.6	0.5	1.1	0.4	1.2	1.7	2.5
Ivye	0.7	0.6	0.6	0.6	0.7	1.3	1.3
Korelichy	1.4	1.9	2.0	2.1	2.0	2.0	1.6
Lida	5.4	5.1	5.1	3.8	3.6	4.5	4.6
Mosty	1.7	1.7	2.4	1.2	1.2	1.6	0.9
Novogrudok	0.9	1.1	1.2	1.5	1.8	1.9	1.9
Ostrovets	1.0	0.3	0.4	0.8	0.4	0.5	0.4
Oshmyany	0.6	0.8	0.9	0.4	0.4	1.1	1.0
Svisloch	1.2	1.3	1.3	1.4	1.5	1.3	1.3
Slonim	4.1	5.0	5.9	5.6	3.2	5.8	6.2
Smorgon	1.9	2.7	3.6	4.2	3.2	3.0	3.6
Shchuchin	2.4	3.4	3.5	3.1	3.3	4.2	4.0

Continued

	2012	2013	2014	2015	2016	2017	2018
Minsk city	26.6	25.1	23.5	20.3	18.1	18.3	18.3
Minsk region	69.2	71.0	74.5	75.9	74.9	68.6	70.6
District:							
Berezino	2.3	2.5	1.9	2.1	0.9	0.8	1.8
Borisov	4.6	4.3	4.7	4.0	4.4	4.2	6.4
Vileyka	2.7	2.6	1.5	1.4	1.1	1.3	1.4
Volozhin	1.5	0.9	1.1	1.4	1.4	1.1	1.2
Dzerzhinsk	2.3	2.3	1.6	1.6	2.3	1.8	2.2
Kletsk	2.3	2.1	3.0	3.3	3.0	2.2	2.9
Kopyl	1.1	1.3	2.0	2.4	2.4	2.1	1.6
Krupki	3.0	3.3	3.2	2.5	2.2	3.0	1.9
Logoysk	1.3	1.9	1.6	2.0	1.9	1.4	1.9
Lyuban	1.1	2.1	4.9	4.5	4.0	4.7	4.0
Minsk	7.2	9.8	9.9	9.2	10.7	10.7	8.6
Molodechno	2.8	2.6	2.8	3.0	2.6	2.3	2.7
Myadel	0.9	0.7	0.6	0.9	1.2	1.0	1.0
Nesvizh	8.2	8.6	9.1	9.4	9.3	7.1	8.5
Pukhovichy	4.3	3.4	4.4	4.9	4.2	4.0	3.4
Slutsk	5.9	4.9	5.4	5.6	5.6	5.7	5.4
Smolevichy	4.4	3.8	3.4	3.1	4.1	3.9	3.5
Soligorsk	7.5	7.5	7.3	6.9	6.3	5.0	5.3
Staryie Dorogi	1.7	1.7	1.7	1.9	1.7	1.7	1.3
Stolbtsy	2.9	3.0	2.7	2.7	2.6	2.6	2.2
Uzda	0.6	0.7	0.8	1.7	1.7	1.1	1.8
Cherven	0.7	0.8	0.9	1.3	1.3	0.9	1.6

Continued

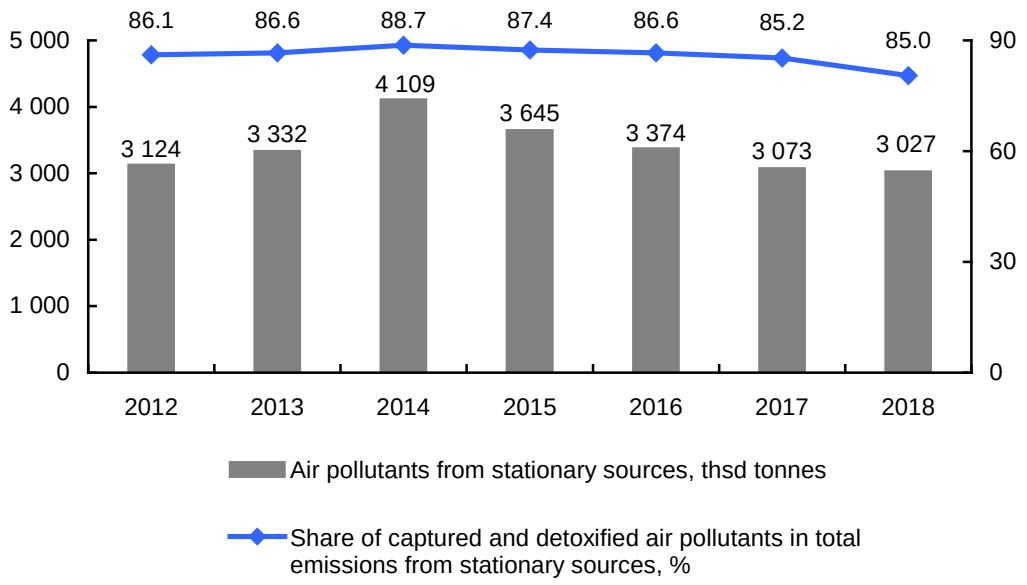
	2012	2013	2014	2015	2016	2017	2018
Mogilev region	48.4	48.2	50.1	43.8	42.2	47.7	44.6
Mogilev, city of	6.8	6.5	5.6	6.4	5.9	4.7	5.7
District:							
Belynichy	0.7	0.7	1.2	2.1	1.3	1.5	0.8
Bobruysk	7.1	6.5	5.7	4.9	4.4	4.1	3.5
Bykhov	1.2	1.2	1.1	0.8	1.2	1.3	0.9
Glusk	0.6	0.4	0.7	0.9	0.4	0.2	0.4
Gorki	1.1	0.7	1.2	1.4	1.2	1.4	1.5
Dribin	0.7	0.6	0.6	0.5	0.8	0.5	0.8
Kirovsk	1.4	1.5	1.5	0.3	2.0	1.7	2.3
Klimovichy	0.5	0.6	0.6	0.8	0.9	0.6	1.1
Klichev	1.5	1.6	1.6	1.6	1.5	1.7	1.6
Kostyukovichy	4.7	5.5	6.3	5.5	5.0	4.4	4.9
Krasnopolye	0.9	0.9	0.9	0.0	0.0	0.1	0.0
Krichev	5.7	6.8	7.6	4.6	4.3	4.4	4.2
Krugloye	0.3	0.4	0.5	0.5	0.4	0.6	0.6
Mogilev	3.0	2.6	3.1	1.7	1.4	3.5	2.6
Mstislavl	0.4	0.4	0.4	0.6	0.5	1.1	0.7
Osipovichy	5.6	5.9	5.1	4.9	5.1	8.7	6.3
Slavgorod	0.5	0.5	0.4	0.0	0.2	0.4	0.9
Khotimsk	0.1	0.2	0.2	0.0	0.1	0.2	0.2
Chausy	0.7	0.4	0.5	0.2	0.3	0.3	0.2
Cherikov	0.3	0.5	0.5	1.1	0.3	0.3	0.0
Shklov	4.7	3.9	4.7	5.1	5.3	5.9	5.4

5.15. Air pollutants from stationary sources by regions and Minsk city

(thousand tonnes)

	2012	2013	2014	2015	2016	2017	2018
Republic of Belarus	3 124.2	3 332.0	4 108.5	3 645.4	3 374.4	3 072.6	3 027.4
Regions and Minsk city:							
Brest	185.2	123.8	153.9	129.2	139.8	148.0	146.9
Vitebsk	239.6	222.2	214.5	222.3	204.5	204.2	214.5
Gomel	325.8	321.1	332.1	311.1	332.4	328.8	389.9
Grodno	340.1	708.6	831.4	631.1	608.1	386.1	369.4
Minsk city	83.7	86.5	76.2	139.7	106.2	85.9	74.7
Minsk	1 288.1	1 069.2	1 514.6	1 442.0	1 448.7	1 462.2	1 362.4
Mogilev	661.6	800.4	985.9	770.1	534.8	457.4	469.6

5.16. Air pollutants from stationary sources



5.17. Captured and detoxified air pollutants from stationary sources by regions and Minsk city

	2012	2013	2014	2015	2016	2017	2018
	Thousand tonnes						
Republic of Belarus	2 691.0	2 886.7	3 645.7	3 187.1	2 921.4	2 619.2	2 574.1
Regions and Minsk city:							
Brest	150.4	84.6	102.1	78.9	88.3	97.3	93.8
Vitebsk	129.2	116.4	112.0	110.3	96.5	102.0	106.9
Gomel	230.4	218.4	230.5	211.4	227.8	223.2	289.5
Grodno	291.8	655.4	772.6	574.6	554.2	325.8	310.6
Minsk city	57.1	61.4	52.7	119.4	88.1	67.6	56.5
Minsk	1 218.9	998.3	1 440.1	1 366.1	1 373.8	1 393.5	1 291.8
Mogilev	613.2	752.2	935.8	726.3	492.6	409.7	425.0
	As % of total air pollutants from stationary sources						
Republic of Belarus	86.1	86.6	88.7	87.4	86.6	85.2	85.0
Regions and Minsk city:							
Brest	81.2	68.3	66.3	61.1	63.1	65.8	63.8
Vitebsk	53.9	52.4	52.2	49.6	47.2	49.9	49.9
Gomel	70.7	68.0	69.4	68.0	68.5	67.9	74.3
Grodno	85.8	92.5	92.9	91.0	91.2	84.4	84.1
Minsk city	68.3	71.0	69.2	85.5	83.0	78.7	75.6
Minsk	94.6	93.4	95.1	94.7	94.8	95.3	94.8
Mogilev	92.7	94.0	94.9	94.3	92.1	89.6	90.5

5.18. Captured and detoxified air pollutants from stationary sources by regions, cities and districts

(thousand tonnes)

	2012	2013	2014	2015	2016	2017	2018
Republic of Belarus	2 691.0	2 886.7	3 645.7	3 187.1	2 921.4	2 619.2	2 574.1
Brest region	150.4	84.6	102.1	78.9	88.3	97.3	93.8
Brest, city of	2.1	1.7	1.5	2.7	3.3	2.0	9.6
District:							
Baranovichy	14.5	11.9	11.6	9.7	9.9	8.7	4.4
Bereza	3.7	1.2	10.7	4.5	2.9	3.0	1.5
Brest	0.0	0.0	0.2	0.1	0.1	0.2	0.2
Gantsevichy	0.0	0.0	0.1	0.1	0.1	0.1	0.1
Drogichin	0.5	0.6	1.0	0.6	0.6	0.3	0.3
Zhabinka	21.5	1.4	1.9	1.4	1.0	1.2	1.6
Ivanovo	2.7	2.1	1.6	1.0	1.0	1.1	1.1
Ivatsevichy	11.9	17.0	24.2	15.3	13.2	13.4	15.0
Kamenets	1.9	1.9	2.5	2.8	1.5	2.3	0.8
Kobrin	12.3	0.4	2.3	0.7	0.4	0.4	0.2
Luninets	2.0	1.9	6.3	5.6	7.5	7.5	5.7
Lyakhovichy	43.0	33.2	25.3	21.5	31.8	36.3	42.8
Malorita	1.5	1.2	1.2	1.5	1.4	1.4	0.6
Pinsk	4.3	7.8	10.5	10.4	12.7	12.8	8.9
Pruzhany	1.6	1.5	0.7	0.7	0.6	6.1	0.4
Stolin	26.9	0.8	0.5	0.4	0.3	0.5	0.7

Continued

	2012	2013	2014	2015	2016	2017	2018
Vitebsk region	129.2	116.4	112.0	110.3	96.5	102.0	106.9
Vitebsk, city of	53.7	54.8	54.7	56.0	53.3	53.3	54.3
District:							
Beshenkovichy	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Braslav	0.6	0.6	0.5	0.5	0.5	0.4	0.4
Verkhnedvinsk	0.8	1.2	0.7	1.7	0.2	1.8	0.5
Vitebsk	2.4	0.5	2.1	0.0	0.0	0.1	0.1
Glubokoye	6.2	7.3	7.5	5.9	0.8	0.3	6.7
Gorodok	0.2	0.2	0.4	0.1	0.1	0.1	0.2
Dokshitsy	0.3	0.2	0.3	0.3	0.3	0.2	0.3
Dubrovno	0.3	0.2	0.2	0.2	0.2	1.1	0.2
Lepel	0.8	1.0	0.8	0.6	0.3	0.3	0.3
Liozno	0.6	0.5	0.9	2.3	1.6	1.2	1.2
Miory	0.5	0.5	0.3	0.6	0.6	0.1	0.4
Orsha	12.9	10.7	10.6	7.9	8.9	6.8	5.8
Polotsk	23.6	16.8	16.8	22.1	19.8	21.6	21.4
Postavy	2.2	3.9	4.4	3.7	3.0	3.0	3.1
Rossony	0.3	0.4	0.3	0.2	0.1	–	–
Senno	0.2	0.0	0.2	0.3	0.1	0.0	0.3
Tolochin	11.4	3.7	1.1	1.6	0.7	3.8	0.1
Ushachy	0.3	0.3	0.1	0.1	0.1	0.1	0.2
Chashniki	11.1	13.1	9.7	5.8	5.6	7.7	11.0
Sharkovshchina	0.2	0.2	0.1	0.0	0.0	–	0.1
Shumilino	0.3	0.4	0.2	0.4	0.3	0.1	0.3

Continued

	2012	2013	2014	2015	2016	2017	2018
Gomel region	230.4	218.4	230.5	211.4	227.8	223.2	289.5
Gomel, city of	89.9	98.2	90.9	85.5	95.0	95.1	97.2
District:							
Bragin	–	–	0.0	0.0	0.0	0.0	0.0
Buda-Koshelyovo	1.0	1.1	1.4	1.0	1.0	0.6	0.9
Vetka	0.4	1.1	0.4	0.6	0.5	0.4	0.2
Gomel	1.5	5.5	0.1	0.2	0.2	0.2	0.2
Dobrush	0.4	0.4	0.7	0.6	0.0	0.6	0.6
Yelsk	0.1	0.2	0.1	0.1	0.1	0.1	0.0
Zhitkovichy	7.7	7.6	5.3	0.8	4.1	4.8	4.3
Zhlobin	40.4	31.9	34.2	39.6	40.8	38.6	45.5
Kalinkovichy	2.6	2.9	2.6	0.3	2.7	2.3	2.1
Korma	0.2	0.3	0.3	1.0	0.6	0.6	1.0
Lelchitsy	0.2	0.2	0.5	0.4	0.2	0.2	0.3
Loyev	0.2	0.0	0.0	0.0	–	–	0.6
Mozyr	52.5	49.4	64.3	64.3	63.3	62.2	71.9
Oktyabrsky	1.1	0.2	0.1	0.3	0.2	0.2	0.2
Petrikov	0.4	0.5	0.6	0.4	0.2	0.3	0.2
Rechitsa	4.9	2.8	13.3	3.7	16.0	15.9	17.4
Rogachev	1.1	1.5	0.6	1.7	1.0	0.4	0.2
Svetlogorsk	22.3	13.1	14.5	11.0	1.8	0.6	45.3
Khoyniki	3.4	1.5	0.3	0.1	0.2	0.2	1.3
Chechersk	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Continued

	2012	2013	2014	2015	2016	2017	2018
Grodno region	291.8	655.4	772.6	574.6	554.2	325.8	310.6
Grodno, city of	72.1	66.4	70.5	60.6	38.8	37.4	44.1
District:							
Berestovitsa	0.3	0.4	0.2	0.2	0.0	0.0	0.0
Volkovysk	137.6	517.8	628.9	458.0	461.3	210.9	191.7
Voronovo	0.3	0.3	0.3	0.2	0.2	0.2	0.2
Grodno	8.8	8.9	7.6	5.2	2.0	7.1	7.4
Dyatlovo	2.2	1.7	1.6	1.6	0.1	0.2	0.2
Zelva	0.5	0.2	0.2	0.3	0.1	0.1	0.2
Ivye	0.3	0.3	0.2	0.1	0.1	0.3	0.5
Korelichy	0.3	0.4	0.4	0.4	0.3	2.2	0.2
Lida	41.6	38.6	33.8	22.9	28.3	35.6	39.8
Mosty	0.7	1.5	7.8	4.8	5.4	14.2	7.5
Novogrudok	1.3	1.2	1.1	1.2	0.2	0.6	0.6
Ostrovets	0.1	0.0	0.0	0.2	0.6	0.7	0.6
Oshmyany	19.3	11.9	10.1	8.8	6.1	5.3	5.4
Svisloch	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Slonim	3.2	3.2	3.1	3.3	3.0	3.1	2.9
Smorgon	3.0	2.8	6.6	6.8	7.6	7.8	9.0
Shchuchin	0.1	0.2	0.2	0.1	0.1	0.1	0.1

Continued

	2012	2013	2014	2015	2016	2017	2018
Minsk city	57.1	61.4	52.7	119.4	88.1	67.6	56.5
Minsk region	1 218.9	998.3	1 440.1	1 366.1	1 373.8	1 393.5	1 291.8
District:							
Berezino	0.8	0.9	0.5	5.5	15.3	0.4	28.1
Borisov	6.4	7.6	9.5	9.6	1.7	2.7	8.1
Vileyka	2.6	2.6	2.5	2.0	1.6	0.2	1.8
Volozhin	0.7	0.6	0.8	0.8	0.1	0.2	3.4
Dzerzhinsk	3.7	3.0	5.3	2.9	2.9	5.0	3.1
Kletsk	0.8	0.9	1.2	–	–	–	–
Kopyl	0.1	0.0	0.1	0.1	0.1	0.1	0.0
Krupki	3.0	2.3	3.6	2.2	1.8	2.2	2.8
Logoysk	0.8	0.8	1.0	0.2	0.4	0.4	0.0
Lyuban	1.0	75.6	123.4	102.7	85.2	107.5	120.2
Minsk	2.9	2.5	2.8	13.2	14.8	13.9	3.7
Molodechno	11.8	11.1	10.4	8.4	8.7	13.5	13.5
Myadel	0.0	0.0	0.1	0.1	0.1	0.1	0.2
Nesvizh	1.4	1.3	1.1	0.9	1.0	2.4	2.3
Pukhovichy	9.0	3.0	4.8	15.0	4.7	1.4	0.4
Slutsk	16.1	8.0	5.5	4.1	2.5	4.3	4.2
Smolevichy	4.3	5.7	4.9	8.9	19.2	21.6	22.7
Soligorsk	1 151.4	869.5	1 260.0	1 187.3	1 209.5	1 215.8	1 073.1
Staryie Dorogi	0.1	0.2	0.4	0.3	0.2	0.3	0.3
Stolbtsy	1.2	1.7	1.0	1.0	3.2	0.7	2.6
Uzda	0.2	0.2	0.2	0.0	0.0	0.0	0.0
Cherven	0.6	0.7	1.2	1.0	0.6	1.1	1.1

Continued

	2012	2013	2014	2015	2016	2017	2018
Mogilev region	613.2	752.2	935.8	726.3	492.6	409.7	425.0
Mogilev, city of	18.3	14.8	8.8	19.9	25.1	8.2	10.6
District:							
Belynichy	0.3	0.1	0.1	0.1	0.1	0.1	0.1
Bobruysk	4.9	4.9	3.1	3.5	2.1	2.7	3.5
Bykhov	1.5	2.0	2.0	0.4	1.7	1.5	1.6
Glusk	0.0	0.0	0.0	–	–	–	–
Gorki	1.7	0.3	0.7	0.4	0.3	0.4	0.4
Dribin	0.1	0.1	0.1	–	0.1	–	–
Kirovsk	0.2	0.2	0.3	1.5	0.3	0.0	0.0
Klimovichy	10.1	10.9	11.0	10.9	11.3	11.2	11.0
Klichev	0.0	0.0	0.0	–	0.0	0.0	0.0
Kostyukovichy	495.6	513.9	513.0	494.9	276.8	197.1	198.7
Krasnopolye	0.0	0.0	0.0	–	–	0.0	0.0
Krichev	78.2	202.4	395.1	193.2	173.2	174.7	179.4
Krugloye	0.1	0.0	0.0	–	–	0.0	0.0
Mogilev	0.1	0.8	0.2	0.1	0.7	11.3	17.8
Mstislavl	0.2	0.1	0.1	0.0	0.2	0.0	0.0
Osipovichy	1.1	1.1	1.1	0.9	0.9	1.5	1.0
Slavgorod	0.1	0.0	0.1	0.0	0.0	–	–
Khotimsk	0.0	0.0	0.0	–	0.0	0.3	0.3
Chausy	0.1	0.0	0.0	–	–	0.3	–
Cherikov	0.0	0.0	0.0	0.0	0.0	–	–
Shklov	0.4	0.3	0.1	0.3	0.3	0.4	0.4

5.19. Utilization of pollutants captured by gas treatment plants by regions and Minsk city

	2012	2013	2014	2015	2016	2017	2018
Thousand tonnes							
Republic of Belarus	2 379.3	2 639.8	3 386.0	2 850.8	2 553.9	2 294.2	2 159.1
Regions and Minsk city:							
Brest	106.0	70.3	84.3	63.2	68.6	65.6	61.5
Vitebsk	102.9	91.9	88.1	76.3	73.6	75.8	75.4
Gomel	119.2	124.6	128.4	116.7	72.2	97.3	145.3
Grodno	259.2	628.4	744.0	547.6	531.1	315.7	267.6
Minsk city	20.5	21.1	8.8	12.2	15.3	14.1	11.7
Minsk	1 177.4	969.5	1 407.8	1 317.7	1 313.8	1 330.1	1 205.3
Mogilev	594.1	734.1	924.6	717.1	479.2	395.7	392.3
As % of total pollutants captured and detoxified							
Republic of Belarus	88.4	91.4	92.9	89.5	87.4	87.6	83.9
Regions and Minsk city:							
Brest	70.5	83.0	82.6	80.0	77.7	67.4	65.6
Vitebsk	79.7	79.0	78.7	69.2	76.2	74.3	70.5
Gomel	51.7	57.0	55.7	55.2	31.7	43.6	50.2
Grodno	88.8	95.9	96.3	95.3	95.8	96.9	86.2
Minsk city	35.8	34.4	16.6	10.2	17.4	20.9	20.8
Minsk	96.6	97.1	97.8	96.5	95.6	95.4	93.3
Mogilev	96.9	97.6	98.8	98.7	97.3	96.6	92.3

5.20. Number of stationary sources of air polluting emissions by regions and Minsk city

	2012	2013	2014	2015	2016	2017	2018
Total							
Republic of Belarus	132 500	136 425	132 282	133 012	135 987	137 484	137 213
Regions and Minsk city:							
Brest	16 593	19 331	18 366	16 408	20 234	20 492	20 843
Vitebsk	13 976	15 789	15 762	16 801	16 641	15 376	15 720
Gomel	20 966	19 962	18 548	19 673	21 457	22 812	22 897
Grodno	20 223	22 148	22 408	22 180	19 471	22 510	22 443
Minsk city	14 308	13 980	13 605	13 702	14 660	14 252	11 126
Minsk	28 682	27 281	26 808	26 924	25 967	25 808	26 694
Mogilev	17 752	17 934	16 785	17 324	17 557	16 234	17 490
of which organised sources of emission							
Republic of Belarus	112 421	114 976	110 270	107 272	108 900	110 426	110 381
Regions and Minsk city:							
Brest	13 576	15 971	15 486	12 643	16 229	16 696	16 867
Vitebsk	11 399	12 931	12 748	13 184	12 435	11 570	12 003
Gomel	18 100	16 880	15 818	16 269	17 463	18 521	18 367
Grodno	16 094	17 337	17 312	16 956	14 454	16 596	16 647
Minsk city	13 903	13 494	13 071	12 599	13 458	13 164	10 658
Minsk	23 932	23 002	21 319	21 162	20 174	20 876	21 454
Mogilev	15 417	15 361	14 516	14 459	14 687	13 003	14 385

Continued

	2012	2013	2014	2015	2016	2017	2018
of which equipped with gas treatment plants							
Republic of Belarus	13 619	13 786	14 023	13 641	13 148	12 852	12 767
Regions and Minsk city:							
Brest	1 697	1 576	1 585	1 655	1 725	1 473	1 603
Vitebsk	1 396	1 557	1 584	1 518	1 408	1 380	1 278
Gomel	2 836	2 781	2 941	2 667	2 670	2 766	2 564
Grodno	1 379	1 468	1 603	1 623	1 424	1 595	1 568
Minsk city	2 228	2 201	2 139	2 101	2 145	1 998	1 757
Minsk	1 963	2 051	2 001	2 025	1 805	1 855	2 094
Mogilev	2 120	2 152	2 170	2 052	1 971	1 785	1 903
As % of total organised sources of emission							
Republic of Belarus	12.1	12.0	12.7	12.7	12.1	11.6	11.6
Regions and Minsk city:							
Brest	12.5	9.9	10.2	13.1	10.6	8.8	9.5
Vitebsk	12.2	12.0	12.4	11.5	11.3	11.9	10.6
Gomel	15.7	16.5	18.6	16.4	15.3	14.9	14.0
Grodno	8.6	8.5	9.3	9.6	9.9	9.6	9.4
Minsk city	16.0	16.3	16.4	16.7	15.9	15.2	16.5
Minsk	8.2	8.9	9.4	9.6	8.9	8.9	9.8
Mogilev	13.8	14.0	14.9	14.2	13.4	13.7	13.2

5.21. Number of days with maximum single allowable concentration of pollutants exceeded by selected cities[1)]

City. pollutant monitored	Maximum single allowable concentration. micrograms per m^3	Number of days with prescribed maximum single allowable concentration exceeded						
		2012	2013	2014	2015	2016	2017	2018
Bobruysk								
Solid particles	300	0	0	0	0	0	0	0
Carbon monoxide	5 000	0	0	0	0	0	0	0
Nitrogen dioxide	250	0	1	1	0	0	0	0
Phenol	10	0	0	2	0	0	0	0
Brest								
Solid particles	300	0	0	1	0	1	0	0
Sulphur dioxide	500	0	0	…	…	0	0	0
Carbon monoxide	5 000	0	0	1	4	0	0	0
Nitrogen dioxide	250	0	3	14	1	2	3	9
Vitebsk								
Solid particles	300	0	0	0	0	0	0	2
Sulphur dioxide	500	0	…	…	…	…	…	0
Carbon monoxide	5 000	0	0	0	0	0	0	0
Nitrogen dioxide	250	0	0	0	0	2	0	2
Phenol	10	0	0	0	0	0	…	…
Ammonia	200	0	0	0	2	1	1	0
Gomel								
Solid particles	300	0	1	10	4	0	1	6
Carbon monoxide	5 000	…	…	…	…	35	40	16
Nitrogen dioxide	250	0	0	1	0	0	0	0
Phenol	10	0	0	0	0	0	0	0
Ammonia	200	0	0	0	0	0	0	0

Continued

City. pollutant monitored	Maximum single allowable concentration. micrograms per m^3	Number of days with prescribed maximum single allowable concentration exceeded						
		2012	2013	2014	2015	2016	2017	2018
Grodno								
Solid particles	300	1	0	0	0	0	0	0
Sulphur dioxide	500	0	0	0	0	…	0	…
Carbon monoxide	5 000	0	0	0	0	0	0	0
Nitrogen dioxide	250	0	0	0	0	0	1	0
Ammonia	200	0	0	0	0	0	0	0
Minsk city								
Solid particles	300	0	1	3	0	9	1	10
Sulphur dioxide	500	1	0	0	0	0	0	0
Carbon monoxide	5 000	0	0	1	0	6	3	2
Nitrogen dioxide	250	9	9	2	1	5	18	15
Phenol	10	0	0	0	0	0	0	0
Ammonia	200	0	2	0	0	0	0	1
Mogilev								
Solid particles	300	2	0	0	0	0	0	0
Sulphur dioxide	500	0	0	…	0	…	…	…
Carbon monoxide	5 000	0	1	0	0	1	0	0
Nitrogen dioxide	250	25	33	2	22	3	2	18
Phenol	10	30	32	72	42	33	15	5
Hydrogen sulphide	8	8	0	0	1	0	0	0
Methyl alcohol	1 000	2	1	0	0	0	0	0
Ammonia	200	5	2	9	21	16	1	14
Orsha								
Solid particles	300	0	0	0	0	0	0	0
Carbon monoxide	5 000	0	0	0	0	1	0	0
Nitrogen dioxide	250	1	0	0	0	1	0	0

Continued

City. pollutant monitored	Maximum single allowable concentration. micrograms per m^3	Number of days with prescribed maximum single allowable concentration exceeded						
		2012	2013	2014	2015	2016	2017	2018
Novopolotsk								
Solid particles	300	0	0	3	10	8	4	3
Sulphur dioxide	500	0	16	15	35	13	19	15
Carbon monoxide	5 000	0	0	0	0	0	0	0
Nitrogen dioxide	250	11	11	15	17	5	1	1
Phenol	10	4	2	3	5	7	6	4
Hydrogen sulphide	8	12	0	0	0	0	0	0
Ammonia	200	1	0	0	0	0	0	0
Pinsk								
Solid particles	300	0	0	12	7	2	2	2
Carbon monoxide	5 000	0	0	0	0	0	0	0
Nitrogen dioxide	250	0	0	1	0	0	0	0
Polotsk								
Solid particles	300	1	2	3	9	5	5	10
Sulphur dioxide	500	0	8	12	…	…	0	0
Carbon monoxide	5 000	0	0	0	0	1	1	0
Nitrogen dioxide	250	8	10	6	3	1	1	0
Phenol	10	3	1	1	2	1	3	0
Ammonia	200	0	1	0	0	0	0	0
Hydrogen sulphide	8	4	0	0	0	0	0	0
Svetlogorsk								
Solid particles	300	0	0	2	1	0	0	0
Carbon monoxide	5 000	0	0	0	0	0	0	0
Nitrogen dioxide	250	0	0	0	0	0	0	0

[1)] Data of the Ministry of Natural Resources and Environmental Protection. For nitrogen dioxide and carbon monoxide data are based on surveys in points with discrete sample collection. For sulphur dioxide data are based on continuous monitoring at automatic stations.

5.22. Average annual concentrations of air pollutants by selected cities[1)]

(microgrammes per cubic metre)

City, pollutant monitored	2012	2013	2014	2015	2016	2017	2018
Bobruysk							
Solid particles	<15	<15	<15	<15	<15	<15	<15
Carbon monoxide	738	769	879	1 129	1 263	1 507	1 467
Nitrogen dioxide	24	33	37	46	49	45	52
Phenol	1.1	1.3	3.0	3.1	3.2	3.1	2.8
Brest							
Solid particles	27	33	35	35	43	48	44
Sulphur dioxide	14	19	…	…	21	12	26
Carbon monoxide	797	913	938	924	859	904	730
Nitrogen dioxide	33	34	39	36	24	28	34
Vitebsk							
Solid particles	112	113	52	42	37	<15	<15
Sulphur dioxide	18	…	…	…	…	31	23
Carbon monoxide	610	517	530	519	586	696	690
Nitrogen dioxide	35	32	41	37	38	43	35
Phenol	1.2	1.4	1.6	1.2	0.4	…	…
Ammonia	23	29	28	29	13	17	13
Gomel							
Solid particles	23	29	33	37	31	31	18
Sulphur dioxide	36	…	…	…	…	…	…
Carbon monoxide	422	452	500	530	588	549	589
Nitrogen dioxide	21	17	26	27	27	39	24
Phenol	1.7	0.6	0.9	0.9	1.1	0.7	0.5
Ammonia	15	12	11	14	18	24	16

Continued

City, pollutant monitored	2012	2013	2014	2015	2016	2017	2018
Grodno							
Solid particles	37	26	31	26	<15	<15	<15
Sulphur dioxide	46	9	15	26	…	26	…
Carbon monoxide	720	664	509	567	417	348	337
Nitrogen dioxide	19	17	26	30	25	27	28
Ammonia	19	15	19	14	15	16	15
Minsk City							
Solid particles	<15	<15	21	25	<15	<15	<15
Sulphur dioxide	18	4	8	15	15	17	22
Carbon monoxide	434	499	470	430	401	413	477
Nitrogen dioxide	37	39	37	35	32	30	30
Phenol	0.4	0.3	0.6	0.5	0.6	0.5	0.5
Ammonia	14	14	11	8	7	6	5
Mogilev							
Solid particles	44	27	<15	<15	<15	<15	<15
Sulphur dioxide	30	24	…	43	…	…	…
Carbon monoxide	670	661	495	479	483	429	382
Nitrogen dioxide	49	49	51	57	41	41	47
Phenol	1.6	1.8	1.7	1.7	1.4	1.2	0.7
Carbon bisulphide	6	6	4	1.2	0.8	1.1	2.4
Methyl alcohol	87	108	68	117	68	48	39
Novopolotsk							
Solid particles	<15	<15	<15	<15	21	19	16
Sulphur dioxide	19	24	32	64	50	47	80
Carbon monoxide	330	577	916	602	604	569	467
Nitrogen dioxide	47	54	46	34	28	30	22
Phenol	1.0	1.0	1.2	1.3	2.5	2.3	1.1
Ammonia	10	8	11	15	13	13	22
Hydrogen sulphide	1.0	1.2	1.1	0.8	0.9	1.1	0.7

Continued

City, pollutant monitored	2012	2013	2014	2015	2016	2017	2018
Orsha							
Solid particles	<15	<15	<15	<15	<15	<15	<15
Carbon monoxide	749	781	1 100	1 058	1 090	1 106	1 057
Nitrogen dioxide	25	21	23	28	29	27	26
Pinsk							
Solid particles	42	20	43	67	30	<15	<15
Carbon monoxide	419	515	517	584	577	683	1 124
Nitrogen dioxide	32	49	22	26	28	24	22
Polotsk							
Solid particles	<15	<15	<15	<15	27	24	29
Sulphur dioxide	43	67	46	…	…	39	49
Carbon monoxide	483	797	1 256	957	646	535	405
Nitrogen dioxide	63	59	58	42	26	32	25
Phenol	1.0	1.0	1.3	1.2	2.4	2.2	1.1
Ammonia	20	15	12	17	13	13	22
Hydrogen sulphide	1.0	1.2	1.0	0.6	0.9	1.2	0.6
Hydrogen fluoride	0.9	0.5	0.8	1.2	0.8	1.2	0.7
Svetlogorsk							
Solid particles	35	22	50	45	30	31	40
Carbon monoxide	648	705	751	637	397	538	665
Nitrogen dioxide	34	53	32	31	31	37	36

[1)] Data of the Ministry of Natural Resources and Environmental Protection. For nitrogen dioxide and carbon monoxide data are based on surveys in points with discrete sample collection. For sulphur dioxide data are based on continuous monitoring at automatic stations.

5.23. Consumption of ozone depleting substances[1)]

	2012	2013	2014	2015	2016	2017	2018
Total, metric tonnes	163.8	140.9	115.1	63.3	51.5	41.2	20.1
Total, metric tonnes in terms of ozone-depleting potential	8.3	7.2	5.8	4.5	3.5	2.6	1.5
Assigned for Belarus maximum amount of consumption, metric tonnes in terms of ozone-depleting potential	12.7	12.7	12.7	5.1	5.1	5.1	5.1

[1)] Data of the Ministry of Natural Resources and Environmental Protection.

5.24. Air quality monitoring by regions and Minsk city[1)]

	2012	2013	2014	2015	2016	2017	2018
Number of tested air samples – total. thousand							
Republic of Belarus	76.4	67.2	78.3	78.2	81.9	73.3	101.5
Regions and Minsk city:							
Brest	4.1	2.6	4.8	5.2	6.5	3.7	8.5
Vitebsk	0.3	0.6	0.6	0.5	0.5	0.4	0.7
Gomel	24.5	21.0	21.4	23.8	23.0	23.1	32.9
Grodno	4.1	3.6	4.7	5.1	6.5	3.8	4.3
Minsk city	17.4	18.5	21.1	20.4	24.5	23.0	26.3
Minsk	8.6	6.9	8.9	7.3	6.6	6.6	10.9
Mogilev	17.4	14.0	16.8	15.9	14.2	12.8	18.0

Continued

	2012	2013	2014	2015	2016	2017	2018
	of which air samples with maximum single allowable concentration exceeded. thousand						
Republic of Belarus	0.5	0.5	0.7	0.6	0.3	0.1	0.3
Regions and Minsk city:							
Brest	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Vitebsk	–	–	–	0.0	0.0	–	–
Gomel	0.0	0.0	0.0	0.1	0.0	0.0	0.1
Grodno	–	0.0	0.0	0.0	0.0	–	–
Minsk city	0.4	0.4	0.5	0.5	0.2	0.1	0.1
Minsk	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Mogilev	0.1	0.0	0.1	0.0	0.0	–	0.0
	As % of total air samples tested						
Republic of Belarus	0.6	0.7	0.9	0.8	0.4	0.2	0.3
Regions and Minsk city:							
Brest	0.2	0.2	0.0	0.1	0.0	0.2	0.0
Vitebsk	–	–	–	0.0	0.0	–	–
Gomel	0.1	0.1	0.1	0.4	0.0	0.1	0.2
Grodno	–	0.0	0.0	0.0	0.0	–	–
Minsk city	2.3	2.2	2.4	2.5	0.8	0.5	0.5
Minsk	0.3	0.3	0.2	0.1	1.5	0.1	0.3
Mogilev	0.4	0.3	0.6	0.2	0.0	–	0.2

[1)] Data of the Ministry of Health.

6. CLIMATE CHANGE

The main indicators measuring climate change are air temperature, atmospheric precipitation and greenhouse gas emissions.

Air temperature is directly connected with the state of the climate system of Earth. The indicator shows trends in average annual temperature fluctuations and allows for estimating the impact of temperature on global climate change, resulting both from cyclicity of natural climatic changes and from anthropogenic impact.

Atmospheric precipitation forms renewable resources of surface and groundwater which, in its turn, has an impact on the state of all the components of the environment (soils, forests, flora and fauna). The amount, quality and distribution of precipitation as well as its seasonal and annual variation of distribution influence significantly agriculture and forestry. Moreover, the amount of precipitation can affect the state of air regulating its humidity, as well preventing the distribution of solids concentration in the ground.

Greenhouse gases are gaseous components of the atmosphere, both of natural and anthropogenic origin, that absorb and reradiate infrared radiation. They include carbon dioxide, methane, dinitrogen monoxide, fluorine-containing gases. Greenhouse gas emissions are recalculated in terms of carbon dioxide (CO_2) equivalent.

Carbon dioxide (CO_2) is one of the main greenhouse gases enhancing natural greenhouse effect and underlying temperature changes and other consequences for the Earth's climate. CO_2 accounts for more than 80% of global greenhouse gas emissions.

Greenhouse gas emissions are estimated by the Ministry of Natural Resources and Environmental Protection using the recommendations of the Intergovernmental Panel on Climate Change (IPCC Guidelines 2006).

The section is prepared on the basis of data of the Ministry of Natural Resources and Environmental Protection.

6.1. Average annual air temperatures by regions and Minsk city

	2012	2013	2014	2015	2016	2017	2018
Average annual temperature, °C							
Republic of Belarus	6.8	7.5	7.8	8.5	7.7	7.6	7.9
Regions and Minsk city:							
Brest	7.7	8.2	8.5	9.3	8.5	8.3	8.9
Vitebsk	6.0	6.8	7.1	7.8	6.9	6.7	7.1
Gomel	7.4	8.3	8.3	9.2	8.3	8.2	8.3
Grodno	6.9	7.5	7.8	8.6	7.7	7.6	8.3
Minsk city	6.7	7.5	7.8	8.7	7.8	7.6	8.0
Minsk	6.6	7.3	7.7	8.4	7.4	7.3	7.8
Mogilev	6.2	7.1	7.2	8.1	7.2	7.2	7.1
Divergence from the norm (1981-2010), °C							
Republic of Belarus	0.1	0.8	1.1	1.8	1.0	0.9	1.2
Regions and Minsk city:							
Brest	0.2	0.7	1.0	1.8	1.0	0.8	1.4
Vitebsk	0.0	0.8	1.1	1.8	0.9	0.7	1.1
Gomel	0.2	1.1	1.1	2.0	1.1	1.0	1.1
Grodno	0.1	0.7	1.0	1.8	0.9	0.8	1.5
Minsk city	0.0	0.8	1.1	2.0	1.1	0.9	1.3
Minsk	0.1	0.8	1.2	1.9	0.9	0.8	1.3
Mogilev	0.0	0.9	1.0	1.9	1.0	1.0	0.9

6.2. Average monthly air temperatures by regions and Minsk city

	2012	2013	2014	2015	2016	2017	2018
January, °C							
Republic of Belarus	-4.8	-7.1	-7.0	-1.1	-7.3	-5.5	-2.7
Regions and Minsk city:							
Brest	-3.3	-5.3	-5.3	0.1	-5.3	-5.2	-1.8
Vitebsk	-5.7	-8.5	-8.0	-1.6	-8.8	-5.8	-2.9
Gomel	-4.8	-6.4	-6.6	-1.0	-7.0	-5.4	-2.8
Grodno	-3.8	-6.5	-6.4	-0.7	-6.5	-5.0	-2.2
Minsk city	-5.0	-7.3	-7.4	-1.3	-7.4	-5.7	-2.8
Minsk	-4.9	-7.5	-7.3	-1.2	-7.8	-5.9	-2.8
Mogilev	-5.8	-8.3	-8.3	-1.9	-8.3	-6.2	-3.4
Divergence from the norm (1981-2010), °C							
Republic of Belarus	-0.4	-2.7	-2.6	3.3	-2.9	-1.1	1.7
Regions and Minsk city:							
Brest	0.2	-1.8	-1.8	3.6	-1.8	-1.7	1.7
Vitebsk	-0.7	-3.5	-3.0	3.4	-3.8	-0.8	2.1
Gomel	-0.6	-2.2	-2.4	3.2	-2.8	-1.2	1.4
Grodno	0.2	-2.5	-2.4	3.3	-2.5	-1.0	1.8
Minsk city	-0.5	-2.8	-2.9	3.2	-2.9	-1.2	1.7
Minsk	-0.3	-2.9	-2.7	3.4	-3.2	-1.3	1.8
Mogilev	-0.5	-3.0	-3.0	3.4	-3.0	-0.9	1.9
July, °C							
Republic of Belarus	20.6	18.5	20.6	18.4	19.4	17.4	19.6
Regions and Minsk city:							
Brest	21.2	18.8	21.1	19.3	19.7	18.2	20.0
Vitebsk	19.8	18.1	20.1	17.3	18.8	16.6	19.2
Gomel	21.5	19.3	21.3	19.7	20.8	18.1	19.8
Grodno	20.2	18.2	20.2	17.9	18.4	17.1	19.6
Minsk city	21.0	18.6	20.8	18.6	19.5	17.6	19.6
Minsk	20.6	18.3	20.6	18.0	19.2	17.2	19.5
Mogilev	20.4	18.2	20.1	18.3	19.7	17.3	19.1
Divergence from the norm (1981-2010), °C							
Republic of Belarus	2.2	0.1	2.2	0.0	1.0	-1.0	1.2
Regions and Minsk city:							
Brest	2.5	0.1	2.4	0.6	1.0	-0.5	1.3
Vitebsk	1.9	0.2	2.2	-0.6	0.9	-1.3	1.3
Gomel	2.3	0.1	2.1	0.5	1.6	-1.1	0.6
Grodno	2.2	0.2	2.2	-0.1	0.4	-0.9	1.6
Minsk city	2.5	0.1	2.3	0.1	1.0	-0.9	1.1
Minsk	2.4	0.1	2.4	-0.2	1.0	-1.0	1.3
Mogilev	2.1	-0.1	1.8	0.0	1.4	-1.0	0.8

6.3. Average annual precipitation by regions and Minsk city

	2012	2013	2014	2015	2016	2017	2018
Average annual precipitation, millimetre							
Republic of Belarus	757	671	567	540	742	765	581
Regions and Minsk city:							
Brest	644	712	548	518	743	714	532
Vitebsk	785	670	624	571	743	823	588
Gomel	845	660	533	520	719	712	599
Grodno	674	675	588	566	785	796	558
Minsk city	839	677	605	563	756	787	649
Minsk	766	657	581	574	780	807	596
Mogilev	830	650	523	499	671	704	610
As % of the norm (1981-2010)							
Republic of Belarus	117	104	88	84	115	118	90
Regions and Minsk city:							
Brest	105	117	90	85	122	117	87
Vitebsk	114	97	90	83	108	119	85
Gomel	132	103	84	82	113	112	94
Grodno	103	103	89	86	119	121	85
Minsk city	121	98	87	81	109	114	94
Minsk	117	101	89	88	119	124	91
Mogilev	133	104	84	80	108	113	98

6.4. Average monthly precipitation by regions and Minsk city

	2012	2013	2014	2015	2016	2017	2018
Average for January, millimetre							
Republic of Belarus	60	47	48	54	50	38	40
Regions and Minsk city:							
Brest	50	59	46	46	51	27	32
Vitebsk	64	37	42	60	55	43	53
Gomel	60	47	49	49	49	40	40
Grodno	61	55	53	49	42	36	37
Minsk city	78	50	51	63	55	36	39
Minsk	68	48	46	56	50	40	42
Mogilev	57	34	50	63	53	39	37
As % of the norm (1981-2010)							
Republic of Belarus	150	118	120	135	125	95	100
Regions and Minsk city:							
Brest	135	159	124	124	138	73	86
Vitebsk	142	82	93	133	122	96	118
Gomel	167	131	136	136	136	111	111
Grodno	139	125	120	111	95	82	84
Minsk city	173	111	113	140	122	80	87
Minsk	162	114	110	133	119	95	100
Mogilev	158	94	139	175	147	108	103
Average for July, millimetre							
Republic of Belarus	55	76	63	74	133	113	147
Regions and Minsk city:							
Brest	59	59	50	54	125	121	127
Vitebsk	61	100	59	77	144	122	140
Gomel	69	62	81	99	89	109	152
Grodno	61	79	66	68	171	111	134
Minsk city	71	96	55	53	135	150	169
Minsk	46	74	55	75	153	121	148
Mogilev	34	85	69	72	113	94	179
As % of the norm (1981-2010)							
Republic of Belarus	65	89	74	87	156	133	173
Regions and Minsk city:							
Brest	69	69	59	64	147	142	149
Vitebsk	74	122	72	94	176	149	171
Gomel	73	66	86	105	95	116	162
Grodno	71	92	77	79	199	129	156
Minsk city	80	108	62	60	152	169	190
Minsk	56	90	67	91	187	148	180
Mogilev	41	104	84	88	138	115	218

6.5. Greenhouse gas emissions

(million tonnes in terms of CO_2 per year)

	2012	2013	2014	2015	2016	2017
Total, without land use, land-use change and forestry	94.3	95.4	94.6	90.0	91.6	94.0
as % of 1990	67.7	68.5	67.9	64.6	65.8	67.5
Total, with land use, land-use change and forestry	62.2	60.2	64.5	62.5	69.7	80.7
as % of 1990	52.7	51.0	54.6	52.9	59.0	68.3

6.6. Greenhouse gas emissions by sector

(million tonnes in terms of CO_2 per year)

	2012	2013	2014	2015	2016	2017
Energy	58.3	59.2	58.0	54.0	56.0	57.7
Industrial processes and product use	6.3	6.5	6.9	6.4	6.0	6.1
Agriculture	24.3	23.7	23.6	23.3	23.5	24.0
Waste	5.4	5.9	6.1	6.2	6.1	6.1
Total, without land use, land-use change and forestry	94.3	95.4	94.6	90.0	91.6	94.0
Land use, land-use change and forestry [1)]	-32.0	-35.1	-30.1	-27.4	-21.9	-13.3
Total, with land use, land-use change and forestry	62.2	60.2	64.5	62.5	69.7	80.7

[1)] The minus sign (-) means absorption of greenhouse gases.

6.7. Structure of greenhouse gas emissions

(as percentage of total)

	2012	2013	2014	2015	2016	2017
Total, without land use, land-use change and forestry	100	100	100	100	100	100
of which:						
energy	61.8	62.1	61.3	60.1	61.2	61.4
industrial processes and product use	6.7	6.9	7.3	7.2	6.6	6.5
agriculture	25.7	24.9	25.0	25.9	25.6	25.6
waste	5.7	6.2	6.4	6.9	6.6	6.5

6.8. Greenhouse gas emissions in energy sector

	2012	2013	2014	2015	2016	2017
Total, million tonnes in terms of CO_2 per year						
Greenhouse gas emissions in energy sector	58.3	59.2	58.0	54.0	56.0	57.7
of which:						
carbon dioxide	56.8	57.8	56.6	52.7	54.7	56.4
methane	1.2	1.2	1.2	1.1	1.1	1.1
dinitrogen monoxide	0.2	0.3	0.3	0.3	0.2	0.2
As % of total						
Greenhouse gas emissions in energy sector	100	100	100	100	100	100
of which:						
carbon dioxide	97.6	97.6	97.5	97.4	97.6	97.7
methane	2.0	2.0	2.0	2.1	2.0	1.9
dinitrogen monoxide	0.4	0.5	0.5	0.5	0.4	0.4

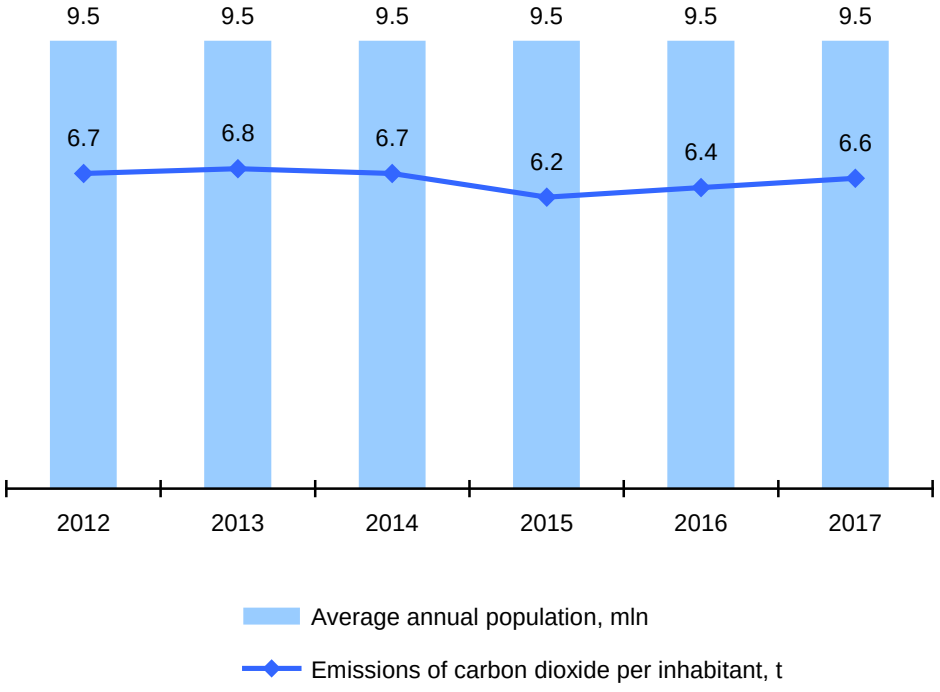
6.9. Greenhouse gas emissions from industrial processes and product use

	2012	2013	2014	2015	2016	2017
Total, million tonnes in terms of CO_2 per year						
Greenhouse gas emissions from industrial processes and product use	6.3	6.5	6.9	6.4	6.0	6.1
of which:						
carbon dioxide	5.6	5.8	6.1	5.7	5.3	5.3
methane	0.1	0.1	0.1	0.1	0.1	0.1
dinitrogen monoxide	0.7	0.7	0.7	0.7	0.7	0.7
fluorine-containing gases	0.0	0.0	0.0	0.0	0.0	0.0
As % of total						
Greenhouse gas emissions from industrial processes and product use	100	100	100	100	100	100
of which:						
carbon dioxide	87.6	88.0	88.8	87.8	88.1	87.2
methane	1.3	1.1	1.1	1.1	1.0	1.1
dinitrogen monoxide	11.1	10.9	10.1	11.0	10.8	11.7
fluorine-containing gases	0.0	0.0	0.0	0.0	0.0	0.0

6.10. Emissions of carbon dioxide (CO_2)

	2012	2013	2014	2015	2016	2017
Total, million tonnes						
Emissions of carbon dioxide (CO_2) without land use, land-use change and forestry	63.7	64.5	63.8	59.3	60.9	62.7
of which by sector:						
energy	56.8	57.8	56.6	52.7	54.7	56.4
industrial processes and product use	5.6	5.8	6.1	5.7	5.3	5.3
As percentage of total						
Emissions of carbon dioxide (CO_2) without land use, land-use change and forestry	100	100	100	100	100	100
of which by sector:						
energy	89.2	89.6	88.7	88.8	89.7	89.9
industrial processes and product use	8.7	8.9	9.6	9.5	8.7	8.5

6.11. Emissions of carbon dioxide (CO_2) per inhabitant of the Republic of Belarus



7. PROTECTION AND USE OF WATER RESOURCES

Water abstraction from natural sources is water withdrawn from groundwater and surface water bodies.

Water use is the water withdrawn from natural sources or received from water supply systems of other water users, to be used for various purposes. Water in circulating and recycling (successive) water supply systems, transit water as well as reusable waste and drainage water are not included.

Water use for domestic and drinking, including curative, purposes is the volume of water consumed to meet drinking and domestic needs of the population and corporate staff, as well as curative (resort, recreational) needs.

Water use for agricultural purposes (except fishery) is the volume of water used for industrial purposes of livestock units, poultry farms, repair facilities, maintenance of motor transport and machinery, field and pasture water supply and a number of other purposes, as well as the volume of water supplied to irrigated area for vegetation watering and all types of non-vegetation watering (moisture supply, flushing, presowing).

Fishery water use is the volume of water for filling fish-farming ponds.

Water use for industrial and other purposes is the total volume of water used for industrial purposes, including manufacture of alcoholic, non-alcoholic and low-alcohol drinks and beer, bottled fresh and mineral waters, as well as for energy needs and other purposes.

Water loss during transport is the volume of water lost as a result of water supply from the point of abstraction (withdrawal) to the point of use or transfer.

Water consumption in circulating water supply systems is the total volume of water which would be needed by enterprise to carry out economic activities without using such systems. Circulating water supply does not include water circulating in heat supply systems.

Volume of water in recycling (successive) water supply systems is the total volume of water reused (successively used) by an enterprise at different stages of production process.

Water discharge is the total volume of water discharged into environment, including discharge into earthen pits, absorption fileds, subsurface disposal fields, filtration trenches, sand-gravel filters.

The volume of water discharge includes wastewater in municipal sewage systems, livestock dung disposal systems, other wastewater disposal (sewage) systems, surface wastewater and water after fishing ponds, as well as technical water (abstracted subsoil mineralized industrial water, quarry (mine) water, drainage water). Beginning from 2016 the volume of water discharge includes discharge of surface wastewater.

The section was prepared on the basis of data of the Ministry of Natural Resources and Environmental Protection.

7.1. Key indicators of protection and use of water resources

(million cubic metres)

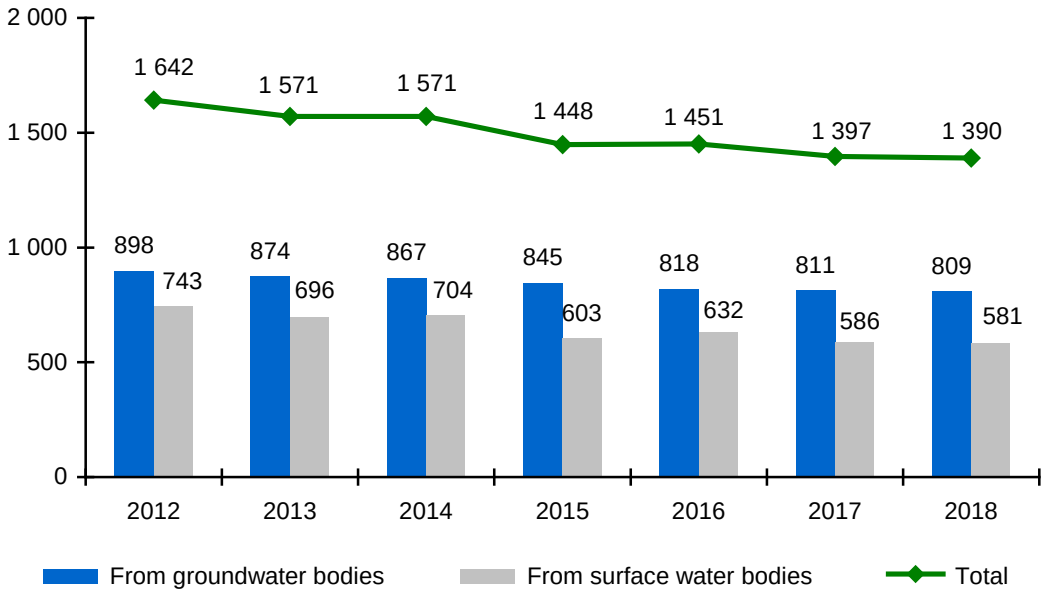
	2012	2013	2014	2015	2016	2017	2018
Water abstraction from natural sources – total	1 642	1 571	1 571	1 448	1 451	1 397	1 390
of which from groundwater bodies	898	874	867	845	818	811	809
Water use – total	1 442	1 373	1 371	1 270	1 302	1 264	1 247
of which for:							
domestic and drinking, including curative, purposes	492	477	473	474	504	493	490
agricultural purposes (except fishery)	120	117	115	114	116	119	120
fishery	401	372	378	293	344	335	307
industrial and other purposes	429	407	405	389	338	317	331
Water loss during transport	84	83	82	78	68	58	58
Circulating water supply	5 530	5 574	5 711	5 320	4 921	5 226	5 728
Recycling (successive) water supply	85	105	93	94	67	81	77
Water discharge – total	1 099	1 058	1 034	948	1 153	1 163	1 134
of which wastewater into surface water bodies	1 015	974	954	870	1 048	1 053	1 034

Continued

	2012	2013	2014	2015	2016	2017	2018
As % of the previous year							
Water abstraction from natural sources – total	100.2	95.7	100.0	92.2	100.2	96.3	99.5
of which from groundwater bodies	100.8	97.3	99.1	97.5	96.9	99.1	99.7
Water use	102.6	95.2	99.8	92.6	102.5	97.1	98.6
Water loss during transport	100.4	98.0	99.0	95.5	86.6	85.6	99.6
Circulating water supply	94.0	100.8	102.5	93.2	92.5	106.2	109.6
Recycling (successive) water supply	96.0	128.5	89.4	101.9	71.1	121.0	95.4
Water discharge – total	101.2	96.2	97.8	91.7	121.7	100.9	97.6
of which wastewater into surface water bodies	101.5	96.0	98.0	91.1	120.6	100.4	98.2
As % of 2010							
Water abstraction from natural sources – total	102.7	98.3	98.3	90.6	90.8	87.4	87.0
of which from groundwater bodies	102.4	99.7	98.8	96.3	93.3	92.5	92.2
Water use	106.1	101.0	100.8	93.4	95.7	93.0	91.7
Water loss during transport	83.0	81.3	80.4	76.8	66.5	56.9	56.7
Circulating water supply	88.1	88.7	90.9	84.7	78.3	83.2	91.2
Recycling (successive) water supply	81.5	100.8	88.6	89.9	63.9	77.3	73.7
Water discharge – total	102.2	98.3	96.1	88.1	107.2	108.1	105.5
of which wastewater into surface water bodies	102.5	98.4	96.4	87.8	105.9	106.3	104.5

7.2. Water abstraction from natural sources

(million cubic metres)



7.3. Water abstraction from natural sources per inhabitant by regions and Minsk city

(cubic metres)

	2012	2013	2014	2015	2016	2017	2018
Republic of Belarus	173	166	166	153	153	147	147
Regions and Minsk city:							
Brest	224	202	204	192	184	190	191
Vitebsk	170	168	167	163	156	143	145
Gomel	165	148	144	136	123	116	122
Grodno	133	134	152	149	146	142	141
Minsk city	27	23	23	22	21	23	23
Minsk	390	389	381	325	349	325	318
Mogilev	139	135	133	127	136	135	128

7.4. Water abstraction from natural sources by regions and Minsk city

(million cubic metres)

	2012	2013	2014	2015	2016	2017	2018
Total							
Republic of Belarus	1 642	1 571	1 571	1 448	1 451	1 397	1 390
Regions and Minsk city:							
Brest	312	280	284	266	256	263	264
Vitebsk	205	203	200	195	185	169	170
Gomel	235	211	204	193	175	164	173
Grodno	141	141	160	156	153	148	147
Minsk city	51	44	45	42	42	46	47
Minsk	547	546	535	459	495	463	455
Mogilev	150	145	142	136	145	144	135
of which from groundwater bodies							
Republic of Belarus	898	874	867	845	818	811	809
Regions and Minsk city:							
Brest	143	141	141	139	134	139	147
Vitebsk	107	106	104	102	98	92	93
Gomel	140	136	134	128	114	117	114
Grodno	98	97	95	97	91	87	89
Minsk city	50	44	45	42	40	44	46
Minsk	255	249	248	239	232	223	219
Mogilev	105	102	100	98	110	109	102

7.5. Water abstraction from natural sources by river basin

(million cubic metres)

	2012	2013	2014	2015	2016	2017	2018
			Total				
Total	1 642	1 571	1 571	1 448	1 451	1 397	1 390
Baltic Sea basin	604	596	625	600	596	546	542
of which river basin:							
Neman	352	350	376	364	366	329	328
Western Dvina	181	178	176	172	164	150	151
Western Bug	70	68	73	65	66	67	63
Black Sea basin	1 038	974	946	847	855	851	849
of which river basin							
Dnieper	561	523	516	498	483	468	483
Pripyat	477	451	430	349	372	383	366
			of which:				
			from groundwater bodies				
Total	898	874	867	845	818	811	809
Baltic Sea basin	324	316	315	312	296	289	285
of which river basin:							
Neman	188	181	181	178	168	164	159
Western Dvina	85	85	83	81	79	75	76
Western Bug	51	51	50	53	50	50	51
Black Sea basin	575	558	552	532	522	522	524
of which river basin							
Dnieper	437	421	417	402	391	378	388
Pripyat	138	136	135	131	131	144	136
			from surface water bodies				
Total	743	696	704	603	632	586	581
Baltic Sea basin	280	280	311	288	300	257	256
of which river basin:							
Neman	165	169	195	185	198	166	169
Western Dvina	96	93	93	90	85	75	75
Western Bug	19	18	22	13	17	17	12
Black Sea basin	463	416	394	315	333	329	325
of which river basin							
Dnieper	125	101	99	97	92	90	94
Pripyat	338	315	295	218	241	239	230

7.6. Water abstraction from natural sources by regions, cities and districts

(million cubic metres)

	Total			Of which from groundwater bodies		
	2016	2017	2018	2016	2017	2018
Republic of Belarus	1 450.8	1 397.5	1 390.2	818.5	811.3	809.2
Brest region	255.5	262.9	264.3	134.3	139.3	147.0
Brest, city of	28.1	28.4	28.7	27.0	27.3	27.4
District:						
Baranovichy	20.3	20.7	19.4	16.8	17.1	15.7
Bereza	53.1	52.0	50.7	6.3	6.4	6.4
Brest	7.7	8.4	8.9	3.6	3.7	3.9
Gantsevichy	33.2	34.1	34.1	2.2	2.1	2.1
Drogichin	4.0	3.6	3.7	2.8	2.5	2.5
Zhabinka	6.8	6.4	6.1	2.4	2.3	2.4
Ivanovo	4.8	4.6	4.3	4.1	3.9	4.0
Ivatsevichy	6.3	6.7	6.6	4.4	4.7	4.7
Kamenets	4.0	3.8	4.3	4.0	3.8	4.2
Kobrin	6.0	6.4	5.8	5.9	6.1	5.6
Luninets	34.8	42.9	50.5	28.6	33.8	41.5
Lyakhovichy	2.5	2.3	2.3	2.5	2.2	2.3
Malorita	8.6	8.4	4.1	2.7	2.8	3.4
Pinsk	26.1	25.1	25.3	11.8	11.5	11.6
Pruzhany	4.9	4.9	5.0	4.9	4.9	5.0
Stolin	4.2	4.0	4.4	4.2	4.0	4.4

Continued

	Total			Of which from groundwater bodies		
	2016	2017	2018	2016	2017	2018
Vitebsk region	185.2	169.4	170.1	97.7	92.3	92.7
Vitebsk, city of	33.8	30.7	29.8	29.3	26.7	26.1
District:						
Beshenkovichy	1.0	1.1	0.9	1.0	1.1	0.9
Braslav	2.1	2.1	2.0	1.8	1.8	1.8
Verkhnedvinsk	2.5	2.4	2.5	2.5	2.3	2.5
Vitebsk	5.2	5.1	4.9	5.2	5.1	4.9
Glubokoye	3.5	3.7	3.9	3.5	3.7	3.9
Gorodok	2.0	2.0	2.1	2.0	2.0	2.1
Dokshitsy	1.8	1.8	1.7	1.8	1.8	1.7
Dubrovno	1.2	1.2	1.2	1.2	1.2	1.2
Lepel	3.2	2.5	2.5	3.0	2.4	2.3
Liozno	2.2	1.6	1.9	1.7	1.6	1.9
Miory	1.3	1.3	1.3	1.3	1.3	1.3
Orsha	16.0	14.9	15.4	13.4	12.5	13.3
Polotsk	73.1	68.4	71.4	16.6	15.9	15.7
Postavy	14.8	14.7	14.6	2.5	2.4	2.4
Rossony	0.6	0.7	0.7	0.6	0.7	0.7
Senno	2.1	2.2	2.2	1.7	1.8	1.7
Tolochin	2.6	2.1	2.5	2.5	2.0	2.5
Ushachy	0.9	0.8	0.9	0.9	0.8	0.9
Chashniki	12.6	7.2	5.0	2.5	2.4	2.4
Sharkovshchina	1.0	1.0	0.9	1.0	1.0	0.9
Shumilino	1.7	1.9	1.6	1.7	1.9	1.6

Continued

	Total			Of which from groundwater bodies		
	2016	2017	2018	2016	2017	2018
Gomel region	174.7	164.5	172.6	113.6	116.6	114.2
Gomel, city of	46.2	46.3	45.1	39.9	40.3	38.8
District:						
Bragin	0.9	0.9	1.0	0.9	0.9	1.0
Buda-Koshelyovo	2.5	3.0	3.2	2.5	3.0	3.2
Vetka	1.5	1.4	2.0	1.3	1.3	2.0
Gomel	6.4	6.7	6.0	5.6	5.7	5.0
Dobrush	4.5	4.5	4.8	3.6	3.5	3.6
Yelsk	1.4	1.2	1.5	1.4	1.2	1.5
Zhitkovichy	18.5	7.6	11.0	2.1	2.0	2.3
Zhlobin	9.5	9.8	10.6	7.7	7.8	8.2
Kalinkovichy	5.3	6.1	6.2	5.3	6.1	6.2
Korma	1.2	1.2	1.2	1.2	1.2	1.2
Lelchitsy	1.7	1.2	1.2	1.1	1.2	1.2
Loyev	1.1	1.0	0.9	1.1	1.0	0.9
Mozyr	23.5	21.9	23.5	10.4	10.7	9.9
Narovlya	1.5	1.7	1.1	0.9	1.2	1.1
Oktyabrsky	1.3	1.3	1.3	1.3	1.3	1.3
Petrikov	13.9	15.3	15.5	2.2	2.2	2.3
Rechitsa	9.1	9.8	9.3	9.1	9.5	9.0
Rogachev	5.3	6.5	5.6	4.8	6.0	5.2
Svetlogorsk	16.7	14.5	19.0	8.2	7.7	7.7
Khoyniki	1.9	1.8	1.6	1.9	1.8	1.6
Chechersk	1.1	0.9	1.2	1.1	0.9	1.2

Continued

	Total			Of which from groundwater bodies		
	2016	2017	2018	2016	2017	2018
Grodno region	153.1	148.2	147.2	90.9	87.3	88.5
Grodno, city of	55.2	53.1	53.9	28.0	27.2	27.1
District:						
Berestovitsa	2.2	2.1	2.0	2.2	2.1	1.9
Volkovysk	10.0	9.2	11.1	7.6	7.2	7.7
Voronovo	3.8	3.7	3.5	2.4	2.0	2.0
Grodno	24.7	24.4	18.9	6.0	5.9	6.0
Dyatlovo	2.9	2.8	2.9	2.5	2.4	2.5
Zelva	1.7	1.6	2.0	1.7	1.0	0.9
Ivye	1.4	1.3	1.3	1.4	1.3	1.3
Korelichy	1.9	2.1	2.1	1.8	1.9	1.8
Lida	12.4	12.2	12.1	11.9	11.2	11.6
Mosty	2.8	2.8	2.8	2.3	2.4	2.4
Novogrudok	3.5	3.4	3.4	3.5	3.3	3.3
Ostrovets	2.4	2.2	2.8	1.7	1.7	2.1
Oshmyany	2.4	2.4	2.4	2.4	2.4	2.3
Svisloch	1.7	1.6	1.6	1.6	1.5	1.5
Slonim	10.4	10.1	10.7	5.7	5.2	5.2
Smorgon	8.2	8.3	8.3	4.2	4.3	4.6
Shchuchin	5.6	4.9	5.5	4.0	4.1	4.3

Continued

	Total			Of which from groundwater bodies		
	2016	2017	2018	2016	2017	2018
Minsk city	42.0	45.8	46.5	40.1	43.7	46.1
Minsk region	495.5	463.1	454.6	232.3	222.7	219.0
District:						
Berezino	2.2	2.7	2.7	2.2	2.1	2.0
Borisov	21.0	18.8	18.0	17.5	16.7	16.2
Vileyka	125.2	93.1	99.4	3.8	3.7	3.7
Volozhin	3.1	3.0	2.8	3.1	2.7	2.8
Dzerzhinsk	18.4	18.0	16.2	18.3	18.0	16.2
Kletsk	4.0	3.9	3.9	4.0	3.9	3.9
Kopyl	3.4	3.1	2.6	3.4	3.1	2.6
Krupki	2.3	2.4	2.3	2.3	2.4	2.2
Logoysk	3.8	4.5	4.9	3.6	3.4	3.6
Lyuban	56.8	67.9	59.1	4.1	3.9	4.2
Minsk	69.9	67.4	69.4	69.4	67.0	68.9
Molodechno	16.8	16.3	15.0	12.8	12.1	11.2
Myadel	4.4	4.1	4.3	2.6	2.2	2.4
Nesvizh	6.7	6.6	6.8	5.2	5.5	5.7
Pukhovichy	17.0	17.0	16.5	14.0	13.9	12.7
Slutsk	16.2	15.2	15.0	16.2	15.2	15.0
Smolevichy	22.4	21.3	21.9	20.2	18.6	18.6
Soligorsk	52.2	48.4	45.6	5.3	5.1	5.1
Staryie Dorogi	2.3	2.3	2.2	2.3	2.3	2.2
Stolbtsy	6.0	6.3	6.7	4.5	4.0	4.3
Uzda	3.2	2.9	2.9	3.2	2.9	2.9
Cherven	38.3	37.8	36.3	14.3	13.8	12.3

Continued

	Total			Of which from groundwater bodies		
	2016	2017	2018	2016	2017	2018
Mogilev region	144.7	143.5	135.0	109.6	109.4	101.5
Mogilev, city of	44.3	43.9	43.5	34.0	33.0	32.6
District:						
Belynichy	2.3	2.1	2.1	2.3	2.1	2.1
Bobruysk	18.5	18.4	18.5	12.2	13.3	13.4
Bykhov	2.8	2.9	3.2	2.8	2.9	3.2
Glusk	1.1	1.0	1.1	1.1	1.0	1.1
Gorki	4.1	3.7	3.7	4.1	3.7	3.7
Dribin	0.9	0.8	0.9	0.9	0.8	0.9
Kirovsk	8.4	7.3	6.8	6.6	6.4	6.2
Klimovichy	2.1	2.1	2.0	2.1	2.1	2.0
Klichev	0.9	0.9	1.0	0.9	0.9	1.0
Kostyukovichy	19.4	19.9	12.9	19.4	19.9	12.9
Krasnopolye	0.4	0.4	0.7	0.4	0.4	0.7
Krichev	1.5	1.6	1.6	1.5	1.6	1.6
Krugloye	1.1	1.3	1.3	1.1	1.3	1.3
Mogilev	6.1	6.6	6.2	4.7	5.0	5.0
Mstislavl	2.1	2.2	1.6	2.1	2.2	1.5
Osipovichy	16.7	16.6	16.4	3.7	3.7	3.7
Slavgorod	2.4	1.7	1.2	2.4	1.7	1.2
Khotimsk	0.8	0.6	0.8	0.8	0.6	0.8
Chausy	1.8	2.2	2.3	1.8	1.8	1.9
Cherikov	1.1	1.3	1.2	1.0	1.1	1.1
Shklov	5.8	6.0	6.1	3.7	3.8	3.6

7.7. Water abstraction from natural sources by economic activity

(million cubic metres)

	Total			Of which from groundwater bodies		
	2016	2017	2018	2016	2017	2018
Republic of Belarus	1 450.8	1 397.5	1 390.2	818.5	811.3	809.2
of which:						
Agriculture, forestry and fishing	427.7	431.2	415.5	134.2	136.4	135.3
Mining	25.8	31.1	39.1	25.8	31.0	38.9
Manufacturing	193.7	188.8	188.1	87.9	89.1	83.8
of which:						
Manufacture of food products, beverages and tobacco products	49.8	51.3	50.5	43.5	45.6	44.8
Manufacture of textile articles, wearing apparel, articles of leather and fur	10.8	8.0	7.7	1.7	1.6	1.7
Manufacture of products of wood and paper; printing and reproduction of recorded media	14.7	14.2	17.9	1.8	1.9	2.0
Manufacture of coke and refined petroleum products	14.3	13.4	14.1	2.1	2.1	2.0
Manufacture of chemicals and chemical products	53.8	52.0	53.1	4.3	4.3	4.4
Manufacture of basic pharmaceuticals and medicinal products	0.6	0.5	0.6	0.6	0.5	0.6
Manufacture of rubber and plastics products, of other non-metallic mineral products	30.8	31.6	25.7	22.3	21.7	17.0
Manufacture of basic metals; manufacture of fabricated metal products, except machinery and equipment	3.7	3.9	4.4	2.0	2.0	2.1
Manufacture of computer, electronic and optical products	2.8	2.8	2.7	2.4	2.5	2.4

Continued

	Total			Of which from groundwater bodies		
	2016	2017	2018	2016	2017	2018
Manufacture of electrical equipment	1.3	1.1	1.1	0.5	0.4	0.4
Manufacture of machinery and equipment n.e.c.	7.7	6.3	7.0	3.9	3.7	3.8
Manufacture of transport vehicles and equipment	2.8	3.0	2.8	2.6	2.8	2.5
Other manufacturing; repair and installation of machinery and equipment	0.6	0.6	0.4	0.2	0.2	0.2
Electricity, gas, steam, hot water and air conditioning supply	223.4	209.0	202.8	151.3	145.0	133.7
Water supply; waste management and remediation activities	530.1	491.8	504.7	406.9	400.7	407.3
Construction	15.1	14.5	11.8	1.6	0.8	0.8
Wholesale and retail trade; repair of motor vehicles and motorcycles	1.9	1.7	1.5	0.6	0.6	0.6
Transportation and storage, postal and courier activities	3.6	1.3	3.5	1.3	0.9	1.3
Accommodation and food service activities	17.8	17.0	11.9	1.0	0.2	0.3
Information and communication	0.0	0.0	0.0	0.0	0.0	0.0
Financial and insurance activities	0.0	0.0	0.0	0.0	0.0	0.0
Real estate activities	1.5	0.3	0.5	1.4	0.3	0.5
Professional, scientific and technical activities	1.8	2.0	1.8	0.3	0.2	0.2
Administrative and support service activities	0.1	0.1	0.2	0.1	0.1	0.1
Public administration	1.9	1.8	2.0	1.9	1.8	2.0
Education	0.2	0.2	0.2	0.2	0.2	0.2
Human health and social work activities	3.4	3.3	3.4	3.4	3.3	3.4
Arts, sports, entertainment and recreation	2.7	3.1	3.4	0.6	0.5	0.5
Other service activity	0.1	0.0	0.1	0.1	0.0	0.1

7.8. Water use by regions and Minsk city

(million cubic metres)

	2012	2013	2014	2015	2016	2017	2018
Total							
Republic of Belarus	1 442	1 373	1 371	1 270	1 302	1 264	1 247
Regions and Minsk city:							
Brest	276	246	250	236	222	231	224
Vitebsk	188	187	184	181	172	159	162
Gomel	212	189	183	176	164	156	165
Grodno	129	129	148	146	143	145	139
Minsk city	184	180	180	174	169	161	161
Minsk	323	313	302	237	315	292	278
Mogilev	130	128	125	121	116	120	117
of which for:							
domestic and drinking, including curative, purposes							
Republic of Belarus	492	477	473	474	504	493	490
Regions and Minsk city:							
Brest	63	60	60	60	55	60	58
Vitebsk	55	55	53	53	54	52	54
Gomel	66	66	65	66	70	67	69
Grodno	53	50	49	50	47	51	48
Minsk city	126	126	127	126	127	123	125
Minsk	75	65	67	67	108	83	81
Mogilev	54	55	52	53	44	57	54

Continued

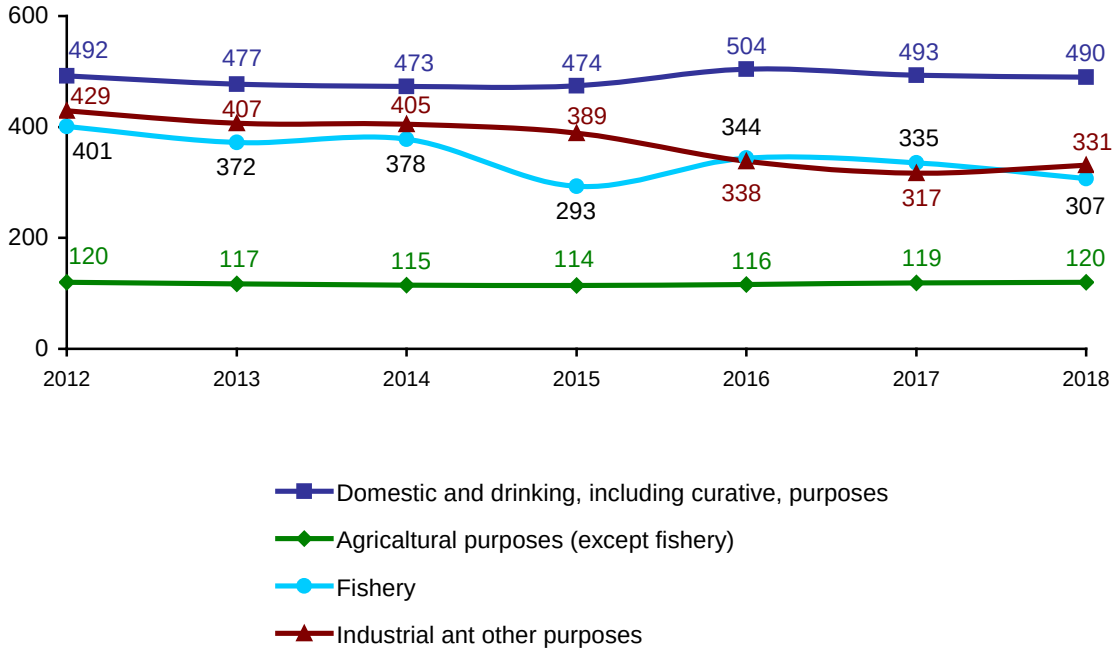
	2012	2013	2014	2015	2016	2017	2018
agricultural purposes (except fishery)							
Republic of Belarus	120	117	115	114	116	119	120
Regions and Minsk city:							
Brest	24	25	23	24	24	24	24
Vitebsk	16	17	16	15	15	15	13
Gomel	19	17	18	18	16	19	20
Grodno	15	14	14	16	17	17	18
Minsk	31	30	30	28	31	29	29
Mogilev	15	15	14	14	13	15	15
fishery							
Republic of Belarus	401	372	378	293	344	335	307
Regions and Minsk city:							
Brest	158	131	137	117	116	118	109
Vitebsk	19	19	16	16	16	15	13
Gomel	31	28	27	25	29	18	20
Grodno	9	9	29	26	34	32	26
Minsk	170	171	154	94	133	134	121
Mogilev	15	14	15	15	16	17	17

Continued

	2012	2013	2014	2015	2016	2017	2018
industrial and other purposes							
Republic of Belarus	429	407	405	389	338	317	331
Regions and Minsk city:							
Brest	31	30	30	35	27	29	33
Vitebsk	98	97	99	97	88	77	82
Gomel	96	79	72	68	49	51	55
Grodno	52	56	56	54	45	44	46
Minsk city	58	54	53	48	38	38	37
Minsk	47	47	51	48	46	46	48
Mogilev	47	44	44	40	42	32	31

7.9. Dynamics of water use

(million cubic metres)



7.10. Water use for domestic and drinking, including curative, purposes per inhabitant by regions and Minsk city

(cubic metres)

	2012	2013	2014	2015	2016	2017	2018
Republic of Belarus	52	50	50	50	53	52	52
Regions and Minsk city:							
Brest	45	43	43	43	40	43	42
Vitebsk	45	45	44	44	45	44	46
Gomel	46	46	46	46	49	47	49
Grodno	50	48	46	47	45	49	46
Minsk city	67	66	66	64	64	62	63
Minsk	53	47	47	47	76	58	57
Mogilev	50	51	49	49	42	53	52

7.11. Water use by economic activity

(million cubic metres)

	2016	2017	2018
Total	1 301.6	1 264.2	1 246.9
of which:			
Agriculture, forestry and fishing	480.2	443.9	423.8
Mining	1.5	6.8	8.7
Manufacturing	175.4	179.6	187.0
of which:			
Manufacture of food products, beverages and tobacco products	49.8	52.3	50.5
Manufacture of textile articles, wearing apparel, articles of leather and fur	10.8	8.8	7.8
Manufacture of products of wood and paper; printing and reproduction of recorded media	14.7	14.4	18.4
Manufacture of coke and refined petroleum products	14.3	14.7	18.6
Manufacture of chemicals and chemical products	53.8	55.0	57.0
Manufacture of basic pharmaceuticals and medicinal products	0.6	0.5	0.6
Manufacture of rubber and plastics products, of other non-metallic mineral products	12.5	14.5	14.5
Manufacture of basic metals; manufacture of fabricated metal products, except machinery and equipment	3.7	5.1	5.4
Manufacture of computer, electronic and optical products	2.8	2.8	2.7
Manufacture of electrical equipment	1.3	1.1	1.1

Continued

	2016	2017	2018
Manufacture of machinery and equipment n.e.c.	7.7	6.6	7.2
Manufacture of transport vehicles and equipment	2.8	3.2	2.8
Other manufacturing; repair and installation of machinery and equipment	0.6	0.6	0.4
Electricity, gas, steam, hot water and air conditioning supply	200.1	192.4	184.3
Water supply; waste management and remediation activities	394.4	392.8	402.0
Construction	15.1	14.5	12.0
Wholesale and retail trade; repair of motor vehicles and motorcycles	1.9	1.7	1.5
Transportation and storage, postal and courier activities	3.6	4.1	3.9
Accommodation and food service activities	17.8	17.0	11.9
Information and communication	0.0	0.0	0.0
Financial and insurance activities	0.0	0.0	0.0
Real estate activities	1.4	0.3	0.5
Professional, scientific and technical activities	1.8	2.1	1.8
Administrative and support service activities	0.1	0.1	0.2
Public administration	1.9	1.8	2.0
Education	0.2	0.2	0.2
Human health and social work activities	3.4	3.4	3.3
Arts, sports, entertainment and recreation	2.7	3.4	3.5
Other service activity	0.2	0.1	0.2

7.12. Water loss during transport by regions and Minsk city

(million cubic metres)

	2012	2013	2014	2015	2016	2017	2018
Republic of Belarus	84.4	82.7	81.8	78.1	67.6	57.9	57.6
Regions and Minsk city:							
Brest	7.4	6.4	5.9	5.6	4.4	4.6	4.5
Vitebsk	10.7	8.4	8.4	8.3	7.4	7.0	6.9
Gomel	13.1	12.5	11.8	11.0	5.2	4.6	4.1
Grodno	6.1	6.6	6.7	5.0	4.4	4.3	3.8
Minsk city	19.6	24.8	25.0	24.5	19.7	24.6	27.1
Minsk	14.2	13.9	13.1	15.2	19.4	6.1	4.7
Mogilev	13.2	10.1	11.0	8.6	7.1	6.7	6.5

7.13. Water discharge by regions and Minsk city

(million cubic metres)

	2012	2013	2014	2015	2016	2017	2018
Total							
Republic of Belarus	1 099	1 058	1 034	948	1 153	1 163	1 134
Regions and Minsk city:							
Brest	210	190	195	163	204	215	201
Vitebsk	141	138	137	139	150	144	147
Gomel	167	144	139	128	158	153	146
Grodno	101	103	115	114	130	127	115
Minsk city	179	174	168	162	215	211	214
Minsk	198	202	185	146	171	176	178
Mogilev	103	106	96	95	125	137	133
of which wastewater into surface water bodies							
Republic of Belarus	1 015	974	954	870	1 048	1 053	1 034
Regions and Minsk city:							
Brest	196	176	181	149	167	171	157
Vitebsk	130	128	127	129	144	138	140
Gomel	147	124	119	110	147	142	137
Grodno	87	89	103	101	120	116	105
Minsk city	179	174	168	162	215	211	213
Minsk	179	183	166	128	155	159	163
Mogilev	97	99	90	90	101	115	117

7.14. Water discharge by regions, cities and districts

(million cubic metres)

	Total			Of which wastewater into surface water bodies		
	2016	2017	2018	2016	2017	2018
Republic of Belarus	1 152.9	1 162.9	1 134.2	1 048.4	1 052.7	1 034.0
Brest region	204.0	215.2	201.2	167.0	171.4	157.4
Brest, city of	30.9	31.2	30.6	30.8	31.2	30.6
District:						
Baranovichy	18.1	18.4	16.5	15.6	15.7	14.3
Bereza	44.3	45.6	37.0	43.9	45.1	36.6
Brest	3.9	3.6	3.9	2.4	2.7	2.9
Gantsevichy	16.4	16.3	19.1	16.3	16.1	19.0
Drogichin	2.1	1.9	1.8	1.8	1.7	1.7
Zhabinka	5.3	5.3	4.8	3.7	3.7	3.3
Ivanovo	3.2	3.1	2.3	1.9	2.2	1.8
Ivatsevichy	4.1	4.2	4.0	3.4	3.5	3.3
Kamenets	2.2	1.1	1.5	0.8	0.6	1.0
Kobrin	4.6	4.1	4.0	3.6	3.4	3.5
Luninets	30.9	45.1	46.3	10.4	14.0	13.7
Lyakhovichy	0.9	0.7	0.8	0.6	0.6	0.6
Malorita	10.4	10.1	4.2	7.8	8.8	3.2
Pinsk	20.8	20.8	20.4	20.3	20.2	19.8
Pruzhany	4.2	2.3	2.5	3.3	1.8	1.9
Stolin	1.7	1.6	1.6	0.2	0.2	0.2

Continued

	Total			Of which wastewater into surface water bodies		
	2016	2017	2018	2016	2017	2018
Vitebsk region	149.9	144.1	147.0	143.5	138.1	140.3
Vitebsk, city of	33.6	35.2	37.1	33.6	35.2	37.0
District:						
Beshenkovichy	0.2	0.3	0.3	0.2	0.2	0.3
Braslav	0.6	0.6	0.6	0.4	0.5	0.5
Verkhnedvinsk	0.9	0.9	1.0	0.3	0.3	0.6
Vitebsk	1.5	1.6	3.6	0.9	1.1	3.0
Glubokoye	1.3	1.3	1.5	0.5	0.1	0.1
Gorodok	1.5	1.4	1.3	1.1	1.3	1.1
Dokshitsy	0.4	0.5	0.5	0.2	0.2	0.3
Dubrovno	0.4	0.3	0.3	0.3	0.2	0.2
Lepel	1.7	1.8	1.7	1.5	1.5	1.4
Liozno	0.7	0.4	0.5	0.4	–	–
Miory	0.7	0.5	0.4	0.1	0.1	0.1
Orsha	12.9	12.6	12.2	12.4	12.2	11.8
Polotsk	69.2	62.7	64.0	68.7	62.3	63.4
Postavy	13.9	14.0	13.5	13.3	13.4	13.1
Rossony	0.2	0.2	0.2	0.1	0.2	0.1
Senno	1.3	1.3	1.4	1.3	1.3	1.4
Tolochin	1.0	0.9	1.7	0.8	0.6	0.7
Ushachy	0.4	0.5	0.5	0.4	0.4	0.4
Chashniki	6.5	6.1	3.7	6.4	6.1	3.7
Sharkovshchina	0.3	0.2	0.2	0.2	0.2	0.2
Shumilino	0.8	0.8	0.8	0.7	0.7	0.8

Continued

	Total			Of which wastewater into surface water bodies		
	2016	2017	2018	2016	2017	2018
Gomel region	157.6	152.6	146.3	147.3	141.7	137.2
Gome, city of	82.2	81.7	72.6	82.2	81.7	72.6
District:						
Bragin	0.3	0.2	0.2	0.0	–	–
Buda-Koshelyovo	1.1	1.0	1.1	0.9	0.9	1.1
Vetka	0.5	0.5	0.9	0.5	0.5	0.4
Gomel	1.5	1.4	1.4	0.1	0.1	0.1
Dobrush	1.8	1.8	2.0	0.2	0.2	0.2
Yelsk	0.3	0.3	0.3	–	–	–
Zhitkovichy	11.1	5.8	7.1	11.0	5.6	7.0
Zhlobin	5.9	7.2	6.5	5.6	6.8	6.1
Kalinkovichy	0.7	0.6	0.6	–	0.0	0.0
Korma	0.4	0.3	0.4	–	–	–
Lelchitsy	0.7	0.3	0.3	0.4	–	–
Loyev	0.3	0.2	0.2	0.0	–	–
Mozyr	19.6	17.5	17.2	18.7	17.0	16.8
Narovlya	1.0	1.0	0.5	0.5	0.5	–
Oktyabrsky	0.4	0.3	0.3	0.1	0.1	0.1
Petrikov	10.2	10.1	11.3	10.0	9.9	11.1
Rechitsa	3.9	6.3	5.5	3.3	4.7	4.9
Rogachev	2.6	3.0	3.0	2.3	2.3	2.4
Svetlogorsk	11.8	11.8	13.8	10.4	10.2	13.4
Khoyniki	1.0	1.0	0.9	0.9	0.8	0.8
Chechersk	0.3	0.3	0.3	0.2	0.2	0.2

Continued

	Total			Of which wastewater into surface water bodies		
	2016	2017	2018	2016	2017	2018
Grodno region	130.5	126.7	115.3	119.7	115.7	105.1
Grodno, city of	54.1	48.4	44.5	53.6	48.3	44.2
District:						
Berestovitsa	0.6	0.6	0.6	0.4	0.3	0.4
Volkovysk	8.9	9.7	9.2	6.9	7.6	7.1
Voronovo	2.1	1.9	2.0	1.7	1.7	1.8
Grodno	21.2	21.1	15.0	18.8	18.6	12.8
Dyatlovo	1.4	1.6	1.6	0.7	0.8	0.7
Zelva	1.0	0.6	0.9	0.7	0.4	0.2
Ivye	0.3	0.3	0.3	0.3	0.3	0.3
Korelichy	1.0	0.9	1.1	0.6	0.5	0.6
Lida	14.2	15.2	14.3	13.5	14.3	13.6
Mosty	1.0	0.8	1.1	0.8	0.7	0.8
Novogrudok	2.3	2.5	2.3	2.1	2.2	2.2
Ostrovets	1.1	1.1	1.3	1.0	0.9	1.1
Oshmyany	1.2	1.1	1.0	0.9	0.9	0.9
Svisloch	0.8	0.4	0.5	0.1	0.0	–
Slonim	10.5	11.1	11.3	10.2	10.9	10.9
Smorgon	5.2	5.9	5.2	4.9	4.7	4.7
Shchuchin	3.5	3.3	3.2	2.6	2.6	2.7

Continued

	Total			Of which wastewater into surface water bodies		
	2016	2017	2018	2016	2017	2018
Minsk city	214.9	211.5	213.5	214.7	211.4	213.4
Minsk region	171.4	175.5	178.2	155.3	159.1	163.1
District:						
Berezino	0.6	1.0	1.4	0.6	–	1.2
Borisov	17.2	16.8	15.5	16.4	16.4	15.0
Vileyka	1.9	2.0	2.1	1.6	1.8	1.5
Volozhin	1.4	1.4	1.1	1.2	1.1	0.9
Dzerzhinsk	3.0	3.2	3.2	2.4	2.5	2.6
Kletsk	1.4	1.4	1.4	0.4	0.4	0.4
Kopyl	0.8	1.0	1.0	0.6	0.9	0.8
Krupki	0.8	0.8	0.7	0.6	0.6	0.6
Logoysk	1.3	1.3	1.4	1.1	1.2	1.3
Lyuban	26.5	32.6	28.1	26.1	32.2	27.7
Minsk	3.9	3.8	4.0	0.3	0.4	0.3
Molodechno	14.2	13.7	23.8	13.0	12.6	22.8
Myadel	3.4	3.4	3.5	3.1	3.1	3.2
Nesvizh	3.0	3.5	3.8	1.8	2.1	2.2
Pukhovichy	4.3	4.6	4.6	3.1	3.5	3.4
Slutsk	10.1	10.5	10.5	8.9	9.3	9.3
Smolevichy	10.0	10.7	10.9	9.2	9.8	10.3
Soligorsk	45.2	40.4	38.9	44.4	40.0	38.5
Staryie Dorogi	0.6	0.7	0.7	0.5	0.6	0.6
Stolbtsy	2.8	3.7	3.7	2.3	3.2	3.1
Uzda	1.2	1.2	0.6	0.0	0.1	0.1
Cherven	17.7	17.6	17.5	17.3	17.3	17.3

Continued

	Total			Of which wastewater into surface water bodies		
	2016	2017	2018	2016	2017	2018
Mogilev region	124.6	137.4	132.7	100.9	115.4	117.4
Mogilev, city of	43.7	55.9	56.7	43.7	55.8	56.6
District:						
Belynichy	1.0	0.8	0.8	0.3	0.1	0.2
Bobruysk	28.7	28.3	27.7	28.7	28.3	27.7
Bykhov	0.4	1.2	2.1	0.3	1.1	1.9
Glusk	0.0	0.3	0.3	–	0.2	0.2
Gorki	1.5	1.6	2.2	1.5	1.5	2.1
Dribin	0.3	0.3	0.3	0.2	0.2	0.2
Kirovsk	2.8	2.1	2.2	2.1	1.9	2.2
Klimovichy	1.0	1.0	1.1	0.2	0.1	0.1
Klichev	0.7	0.3	0.2	–	–	–
Kostyukovichy	18.4	18.4	11.5	1.1	1.1	0.8
Krasnopolye	0.1	0.1	0.1	0.1	0.1	0.1
Krichev	1.1	1.0	1.5	1.1	1.0	1.5
Krugloye	0.2	0.2	0.2	0.0	0.0	0.0
Mogilev	1.0	3.1	3.1	0.8	2.7	2.6
Mstislavl	0.4	0.7	0.4	0.0	0.4	0.1
Osipovichy	16.2	15.7	15.4	16.0	15.4	15.1
Slavgorod	0.6	0.6	0.3	–	–	–
Khotimsk	0.1	0.2	0.1	–	0.1	0.1
Chausy	0.8	1.2	1.1	0.8	1.2	1.0
Cherikov	1.1	0.4	0.9	0.6	0.2	0.8
Shklov	4.2	3.9	4.5	3.5	3.7	4.2

7.15. Water discharge by economic activity

(million cubic metres)

	2016	2017	2018	
			total	of which wastewater into surface water bodies
Total	1 152.9	1 162.9	1 134.2	1 034.0
of which:				
Agriculture, forestry and fishing	245.0	241.2	227.2	214.2
Mining	24.2	36.1	35.1	3.0
Manufacturing	121.5	118.8	114.9	92.5
of which:				
Manufacture of food products, beverages and tobacco products	16.0	16.0	15.9	7.9
Manufacture of textile articles, wearing apparel, articles of leather and fur	2.1	0.6	0.6	0.3
Manufacture of products of wood and paper; printing and reproduction of recorded media	5.1	6.1	8.6	7.3
Manufacture of coke and refined petroleum products	48.6	47.1	45.7	45.2
Manufacture of chemicals and chemical products	25.7	24.6	25.5	25.3
Manufacture of basic pharmaceuticals and medicinal products	0.1	0.0	0.0	0.0
Manufacture of rubber and plastics products, of other non-metallic mineral products	21.7	21.9	16.0	3.9
Manufacture of basic metals; manufacture of fabricated metal products, except machinery and equipment	0.1	0.1	0.1	0.1
Manufacture of computer, electronic and optical products	0.0	0.0	0.0	0.0
Manufacture of electrical equipment	0.1	0.1	0.1	0.1

Continued

	2016	2017	2018	
			total	of which wastewater into surface water bodies
Manufacture of machinery and equipment n.e.c.	1.5	1.4	1.4	1.3
Manufacture of transport vehicles and equipment	0.1	0.7	0.9	0.9
Other manufacturing; repair and installation of machinery and equipment	0.1	0.2	0.1	0.1
Electricity, gas, steam, hot water and air conditioning supply	149.0	151.1	139.9	119.4
Water supply; waste management and remediation activities	513.4	512.6	529.2	521.5
Construction	18.0	13.0	7.2	6.7
Wholesale and retail trade; repair of motor vehicles and motorcycles	1.9	1.8	1.5	1.0
Transportation and storage, postal and courier activities	11.7	12.1	17.5	17.0
Accommodation and food service activities	16.9	17.0	11.6	11.5
Information and communication	–	–	0.0	–
Financial and insurance activities	0.0	0.0	0.0	0.0
Real estate activities	2.2	0.1	0.2	0.1
Professional, scientific and technical activities	2.3	2.6	1.2	1.1
Administrative and support service activities	40.3	51.3	42.8	42.8
Public administration	1.0	0.9	1.0	0.6
Education	0.1	0.1	0.1	0.0
Human health and social work activities	3.5	2.2	2.3	0.2
Arts, sports, entertainment and recreation	1.8	1.8	2.5	2.4
Other service activity	0.0	0.0	0.0	–

7.16. Wastewater discharge into surface water bodies by degree of treatment by regions and Minsk city

(million cubic metres)

	2012	2013	2014	2015	2016	2017	2018
Total							
Republic of Belarus	1 014.6	973.9	954.2	869.6	1 048.4	1 052.7	1 034.0
Regions and Minsk city:							
Brest	195.6	175.8	181.0	149.1	167.0	171.4	157.4
Vitebsk	130.2	128.2	127.2	128.8	143.5	138.1	140.3
Gomel	146.8	124.3	119.3	110.0	147.3	141.7	137.2
Grodno	86.7	89.4	102.6	101.4	119.7	115.7	105.1
Minsk city	179.4	173.9	168.0	162.4	214.7	211.4	213.4
Minsk	179.3	182.8	165.8	128.0	155.3	159.1	163.1
Mogilev	96.6	99.4	90.3	89.9	100.9	115.4	117.4
of which:							
without pre-treatment							
Republic of Belarus	344.8	317.0	315.7	245.7	339.1	354.0	340.9
Regions and Minsk city:							
Brest	128.2	103.7	112.4	82.3	92.0	99.8	88.8
Vitebsk	40.2	40.5	42.5	43.0	51.0	47.0	49.7
Gomel	42.4	26.7	22.2	19.5	55.7	49.2	43.7
Grodno	6.6	7.0	26.2	25.3	30.4	30.4	24.7
Minsk city	0.2	8.8	0.8	0.4	0.5	4.5	4.2
Minsk	115.4	118.3	99.9	62.3	86.0	89.4	94.4
Mogilev	11.8	12.1	11.8	13.0	23.4	33.6	35.5
treated according to standards							
Republic of Belarus	666.4	653.9	635.0	618.2	703.0	694.4	689.1
Regions and Minsk city:							
Brest	67.3	72.0	68.3	66.5	74.8	71.4	68.4
Vitebsk	89.9	87.6	84.6	85.7	91.7	90.7	90.6
Gomel	104.3	97.6	97.1	90.5	89.9	92.4	93.1
Grodno	79.2	82.4	76.4	76.1	89.3	85.2	80.3
Minsk city	179.2	165.1	167.2	162.0	213.7	206.8	209.2
Minsk	62.0	62.4	63.2	61.2	66.2	66.6	66.0
Mogilev	84.5	86.8	78.1	76.1	77.4	81.4	81.5

Continued

	2012	2013	2014	2015	2016	2017	2018
insufficiently treated							
Republic of Belarus	3.4	2.9	3.4	5.7	6.4	4.3	4.0
Regions and Minsk city:							
Brest	0.1	0.1	0.3	0.3	0.2	0.3	0.2
Vitebsk	0.1	0.1	0.1	0.1	0.8	0.4	0.1
Gomel	0.2	0.1	0.0	0.0	1.6	0.1	0.4
Grodno	0.9	0.0	0.0	0.0	0.0	0.1	0.1
Minsk city	0.0	0.0	0.0	0.0	0.5	0.0	0.0
Minsk	1.8	2.1	2.7	4.4	3.1	3.1	2.8
Mogilev	0.3	0.5	0.3	0.8	0.0	0.3	0.4

7.17. Ingress of contaminants with wastewater discharge into surface water bodies

	2012	2013	2014	2015	2016	2017	2018
Wastewater discharge into surface water bodies, mln m^3	1 015	974	954	870	1 048	1 053	1 034
Contaminants discharged:							
biochemical oxygen demand (BOD_5), thsd t	9	8	8	8	9	10	9
salinity, thsd t	422	421	398	382	404	412	419
sulphate ions, thsd t	61	58	47	53	51	49	48
chloride ions, thsd t	75	72	73	66	69	69	70
ammonium ions, thsd t	6	5	5	6	6	6	5
suspended solids, thsd t	12	14	13	12	17	16	14
synthetic surface-active substances, t	125	101	106	107	105	110	83
ferrum, total, t	511	382	289	278	297	271	231
chromium, total, t	3	3	4	3	3	3	4
nickel, t	5	6	3	2	3	4	4
copper, t	7	6	5	5	6	5	4
zinc, t	24	25	24	25	29	29	20
lead, t	1	2	2	1	0,7	0,5	0,5

7.18. Capacity of water treatment facilities by regions and Minsk city

(million cubic metres per year)

	2012	2013	2014	2015	2016	2017	2018
Republic of Belarus	1 830.0	1 834.0	1 871.7	1 872.9	1 845.4	1 884.8	2 043.2
Regions and Minsk city:							
Brest	302.0	305.9	313.7	318.2	332.0	325.8	347.0
Vitebsk	216.7	211.9	215.6	215.7	202.1	203.5	234.9
Gomel	237.2	238.2	240.0	239.5	241.1	266.7	279.0
Grodno	207.9	215.7	215.4	215.2	212.3	210.4	226.6
Minsk city	334.9	334.1	348.1	348.3	378.7	393.9	397.1
Minsk	278.1	271.4	273.5	271.4	227.3	224.6	286.1
Mogilev	253.4	256.8	265.4	264.6	251.8	259.8	272.5

7.19. Average annual biochemical oxygen demand in river water[1)]

(miligrammes O_2 per cubic decimetre)

	2012	2013	2014	2015	2016	2017	2018
Berezina	2.31	2.44	2.48	2.80	2.48	2.53	2.57
Viliya	2.22	2.04	2.18	2.28	2.10	2.37	2.99
Dnieper	2.17	2.08	1.97	2.00	2.07	2.02	2.06
Western Dvina	2.02	2.10	2.04	2.17	2.14	2.11	2.11
Western Bug	4.08	3.52	3.10	4.06	3.77	3.13	2.56
Mukhovets	2.45	2.08	1.75	1.84	2.18	2.21	1.77
Neman	2.11	2.05	2.16	2.13	2.27	2.13	2.40
Pripyat	2.51	2.31	2.62	2.60	2.56	2.56	2.40
Svisloch	2.29	2.47	2.45	2.28	2.38	2.52	2.47
Sozh	1.98	1.73	1.92	1.99	1.97	1.96	2.05

[1)] Maximum permissible concentration in surface water bodies – 3 miligrammes O_2 per cubic decimetre.

7.20. Concentrations of contaminants in river water

	2012	2013	2014	2015	2016	2017	2018
Concentration of ammonium ions (in terms of nitrogen)[1], miligrammes N per cubic decimetre							
Berezina	0.49	0.55	0.50	0.50	0.47	0.49	0.34
Viliya	0.17	0.17	0.23	0.18	0.21	0.12	0.14
Dnieper	0.35	0.35	0.37	0.31	0.31	0.27	0.26
Western Dvina	0.29	0.23	0.26	0.22	0.21	0.16	0.17
Western Bug	0.54	0.36	0.60	0.43	0.42	0.41	0.36
Mukhovets	0.47	0.37	0.47	0.22	0.22	0.31	0.28
Neman	0.24	0.23	0.24	0.19	0.16	0.23	0.18
Pripyat	0.44	0.37	0.33	0.35	0.35	0.26	0.13
Svisloch	0.29	0.31	0.40	0.43	0.44	0.42	0.37
Sozh	0.30	0.34	0.34	0.29	0.27	0.26	0.23
Concentration of phosphate ions (in terms of phosphorus)[2], miligrammes P per cubic decimetre							
Berezina	0.10	0.10	0.08	0.09	0.09	0.08	0.08
Viliya	0.04	0.04	0.03	0.03	0.04	0.03	0.03
Dnieper	0.10	0.10	0.09	0.09	0.08	0.07	0.07
Western Dvina	0.04	0.05	0.04	0.04	0.06	0.06	0.05
Western Bug	0.19	0.14	0.16	0.16	0.15	0.12	0.11
Mukhovets	0.10	0.08	0.10	0.10	0.08	0.08	0.07
Neman	0.04	0.05	0.05	0.05	0.05	0.04	0.05
Pripyat	0.06	0.06	0.05	0.05	0.06	0.06	0.06
Svisloch	0.06	0.04	0.06	0.07	0.07	0.07	0.06
Sozh	0.07	0.08	0.08	0.08	0.07	0.06	0.07

Continued

	2012	2013	2014	2015	2016	2017	2018
	Concentration of nitrates (nitrate ions)[3], miligrammes NO_3 per cubic decimetre						
Berezina	5.54	5.22	4.56	5.27	7.18	6.15	4.70
Viliya	5.54	5.88	4.65	4.25	5.00	4.93	3.88
Dnieper	4.21	4.42	4.65	4.79	4.41	4.29	4.92
Western Dvina	2.92	2.92	2.04	2.04	2.81	2.46	2.04
Western Bug	3.90	6.37	5.54	3.86	6.46	5.53	7.14
Mukhovets	2.26	5.35	3.63	2.84	6.13	5.05	3.80
Neman	4.34	4.91	5.76	4.56	4.99	5.92	4.84
Pripyat	2.04	2.52	3.10	2.53	2.49	2.97	2.90
Svisloch	4.25	4.12	4.87	5.27	6.38	7.05	6.74
Sozh	3.28	3.72	3.85	4.39	3.93	3.76	4.49

[1] Maximum permissible concentration in surface water bodies – 0.39 miligrammes N per cubic decimetre.

[2] Maximum permissible concentration in surface water bodies – 0.066 miligrammes P per cubic decimetre.

[3] Maximum permissible concentration in surface water bodies – 40 miligrammes NO_3 per cubic decimetre.

7.21. Concentrations of phosphate ions (in terms of phosphorus) in lakes[1)]

(miligrammes P per cubic decimetre)

	2012	2013	2014	2015	2016	2017	2018
Vygonoschanskoye	0.027	0.025	0.016	0.019	–	0.022	–
Drivyaty	0.035	0.009	0.012	0.014	–	0.017	–
Ezerishche	0.005	0.007	0.006	0.008	–	0.0085	–
Lepelskoye	0.009	0.020	0.025	–	0.027	–	0.029
Losvido	0.013	0.010	0.011	0.024	–	0.0195	–
Lukomskoye	0.014	0.030	0.015	–	0.017	–	0.007
Myadel	0.005	0.016	0.008	–	0.009	–	0.011
Myastro	0.011	0.017	0.004	0.006	–	0.0065	–
Naroch	0.007	0.007	0.008	0.004	0.010	–	0.008
Nescherdo	0.007	0.013	0.010	–	0.014	–	0.010
Osveyskoye	0.012	0.008	0.016	0.005	–	0.008	–
Richy	0.019	0.006	0.012	0.007	–	0.010	–
Svir	0.011	0.013	0.008	0.005	–	0.005	–
Selyava	0.012	0.006	0.007	0.014	–	0.0334	–
Snudy	0.008	0.006	0.011	0.006	0.009	–	0.004
Strusto	0.007	0.004	0.009	–	0.009	–	0.004
Chervonoye	0.085	0.064	0.080	0.038	–	0.048	–
Chernoye	0.003	0.007	0.021	0.019	0.036	0.019	0.011

[1)] Maximum permissible concentration in surface water bodies – 0.066 miligrammes P per cubic decimetre.

7.22. Drinking water sample tests for compliance with sanitary hygienic safety standards[1)]

	2016		2017		2018	
	total samples taken	of which samples not compliant with hygienic standard	total samples taken	of which samples not compliant with hygienic standard	total samples taken	of which samples not compliant with hygienic standard
For microbiological parametres						
Centralised water supply sources (groundwater)	27 541	108	22 047	125	17 785	118
Public water supply	81 616	546	74 557	434	67 542	643
Corporate water supply	35 329	312	29 316	242	29 505	380
Decentralised water supply sources	17 830	1 937	17 956	2 241	26 754	4 201
For sanitary chemical parametres						
Centralised water supply sources (groundwater)	23 696	8 450	20 101	7 646	17 348	5 975
Public water supply	58 110	7 401	52 286	9 378	57 626	9 070
Corporate water supply	30 930	6 254	30 408	6 092	29 009	5 158
Decentralised water supply sources	17 086	4 581	17 739	4 850	25 893	7 494

[1)] Data of the Ministry of Health.

8. LAND RESOURCES AND LAND PROTECTION

Agricultural land is land regularly used for agricultural production. It includes arable land, fallow land, land under permanent crops, and meadow land.

Forest land is forest stock land covered with forest as well as not covered with forest but intended for its regeneration (cuttings, burned out areas, clearings, waste grounds, glades, lost timber stands, areas under nurseries, plantations and non-closed forest crops, etc.) allotted for forestry management.

Damaged land is land that has lost its natural and historical features, state and uses due to the hazardous anthropogenic impact, and is in a condition that makes its efficient initially designated use impossible.

Land withdrawn from productive turnover includes land removed for housing and industrial construction, construction of transport infrastructure, construction and maintenance of other facilities, forest management and other purposes.

The section was prepared on the basis of the data of the State Committee for Property.

8.1. Land area

(as of January 1; thousand hectares)

	2013	2015	2016	2017	2018	2019	
						total	as % of total
Total land area	20 760	20 760	20 760	20 760	20 760	20 760	100
of which:							
agricultural land	8 817	8 632	8 582	8 540	8 502	8 460	40.8
forest land	8 589	8 653	8 742	8 769	8 774	8 791	42.3
land under swamps and water bodies	1 330	1 309	1 286	1 271	1 273	1 274	6.1
other land	2 025	2 166	2 150	2 180	2 212	2 235	10.8

8.2. Area of agricultural land by region

(as of January 1; thousand hectares)

	2013	2014	2015	2016	2017	2018	2019
				Total			
Republic of Belarus	8 817.3	8 726.4	8 632.3	8 581.9	8 540.2	8 501.6	8 460.1
Region:							
Brest	1 422.5	1 420.1	1 414.8	1 406.4	1 388.7	1 388.1	1 388.1
Vitebsk	1 534.4	1 502.4	1 490.0	1 474.3	1 467.2	1 454.8	1 435.4
Gomel	1 361.9	1 354.2	1 346.7	1 330.4	1 323.8	1 322.7	1 311.0
Grodno	1 246.2	1 243.0	1 236.5	1 233.0	1 230.8	1 218.2	1 217.8
Minsk	1 861.5	1 851.4	1 849.0	1 845.1	1 846.1	1 842.7	1 842.0
Mogilev	1 390.8	1 355.3	1 295.3	1 292.7	1 283.6	1 275.1	1 265.8
				of which arable			
Republic of Belarus	5 521.6	5 559.7	5 662.1	5 677.4	5 683.8	5 727.3	5 712.3
Region:							
Brest	816.9	820.4	828.4	832.3	834.4	835.2	835.0
Vitebsk	919.7	962.1	961.1	956.4	914.4	913.0	906.7
Gomel	818.9	820.2	863.8	881.3	914.2	916.2	911.5
Grodno	844.4	841.6	840.9	843.2	844.2	845.1	843.8
Minsk	1 261.5	1 253.6	1 316.4	1 313.0	1 316.0	1 350.9	1 349.8
Mogilev	860.2	861.8	851.5	851.2	860.6	866.9	865.5

8.3. Area of damaged land by region

(as of January 1; thousand hectares)

	2013	2014	2015	2016	2017	2018	2019
Republic of Belarus	26.3	26.6	26.4	26.9	27.3	26.1	25.4
Region:							
Brest	4.1	4.4	4.3	4.6	4.8	4.8	4.7
Vitebsk	4.0	4.2	4.5	4.6	5.3	4.7	4.6
Gomel	3.3	3.4	3.4	3.3	3.4	3.4	2.9
Grodno	4.6	4.4	4.5	4.8	4.6	4.5	4.6
Minsk	7.3	7.4	6.9	6.8	6.4	5.9	6.0
Mogilev	3.0	2.8	2.8	2.8	2.8	2.8	2.6

8.4. Area of reclaimed land

(as of January 1; thousand hectares)

	2013	2014	2015	2016	2017	2018	2019
Total land reclaimed	3 434.1	3 436.1	3 440.1	3 442.5	3 445.4	3 446.6	3 448.5
of which:							
drained	3 403.6	3 406.5	3 410.4	3 412.3	3 415.1	3 416.3	3 418.2
irrigated	30.5	29.6	29.7	30.2	30.3	30.3	30.3
of which agricultural land	2 944.9	2 940.5	2 910.1	2 908.1	2 904.7	2 902.0	2 895.9
of which:							
drained	2 914.4	2 910.9	2 880.4	2 877.9	2 874.4	2 871.7	2 865.6
irrigated	30.5	29.6	29.7	30.2	30.3	30.3	30.3
Share of reclaimed land in total land area, %	16.5	16.6	16.6	16.6	16.6	16.6	16.6
of which:							
drained	16.4	16.4	16.4	16.4	16.5	16.5	16.5
irrigated	0.1	0.2	0.1	0.1	0.1	0.1	0.1

8.5. Area of drained land by region

(as of January 1; thousand hectares)

	2013	2015	2016	2017	2018	2019	
						total	of which agricultural land
Republic of Belarus	3 403.6	3 410.4	3 412.3	3 415.1	3 416.3	3 418.2	2 865.6
Region:							
Brest	757.2	758.5	758.6	759.0	759.2	759.2	697.7
Vitebsk	625.8	627.3	628.3	628.9	629.3	630.3	509.6
Gomel	651.1	651.3	652.0	652.0	652.0	652.3	499.6
Grodno	327.5	331.4	331.5	331.6	331.6	331.6	293.2
Minsk	709.7	707.9	707.9	707.9	707.9	708.0	598.5
Mogilev	332.3	334.0	334.0	335.7	336.3	336.8	267.0

8.6. Area of irrigated agricultural land by region

(as of January 1; thousand hectares)

	2013	2014	2015	2016	2017	2018	2019
Republic of Belarus	30.5	29.6	29.7	30.2	30.3	30.3	30.3
Region:							
Brest	4.4	4.4	4.4	4.9	4.9	4.9	4.9
Vitebsk	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Gomel	5.1	4.2	4.3	4.3	4.4	4.4	4.4
Grodno	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Minsk	1.9	1.9	1.9	1.9	1.9	1.9	1.9
Mogilev	15.5	15.5	15.5	15.5	15.5	15.5	15.2

8.7. Area of land withdrawn from productive turnover

(as of January 1)

	2013	2014	2015	2016	2017	2018	2019
Land withdrawn from productive turnover:							
thsd ha	2.3	13.5	3.2	5.2	2.1	1.5	1.1
as % of total land area	0.01	0.07	0.02	0.03	0.01	0.01	0.01

9. APPLICATION OF FERTILIZERS AND PESTICIDES

Mineral fertilizers are fertilizers of industrial or fossil origin containing nutrients in the form of non-organic chemical compounds. The main nutrients of mineral fertilizers are nitrogen, phosphorus and potassium.

Excessive use of mineral and organic fertilizers as well as application of pesticides increase ecological hazards of water and soil contamination and have a negative impact on other components of the environment.

The analysis of time series on application of fertilizers and pesticides allows for control of their impact on the environment.

9.1. Application of mineral fertilizers in agricultural organisations per hectare of agricultural land by region

(in terms of 100% content of nutrients; kilogrammes)

	2012	2013	2014	2015	2016	2017	2018
Mineral fertilizers – total							
Republic of Belarus	197	188	162	148	112	110	121
Region:							
Brest	198	194	167	145	129	129	134
Vitebsk	173	177	131	104	59	57	69
Gomel	191	196	176	156	104	106	130
Grodno	218	215	201	187	134	156	178
Minsk	213	177	168	172	149	135	133
Mogilev	187	176	131	121	88	75	81

Continued

	2012	2013	2014	2015	2016	2017	2018
of which:							
nitrogenous							
Republic of Belarus	73	71	61	60	47	55	55
Region:							
Brest	73	66	63	61	53	60	58
Vitebsk	65	70	47	44	28	33	36
Gomel	68	73	63	66	43	55	57
Grodno	80	81	82	76	62	76	82
Minsk	79	67	63	65	58	63	59
Mogilev	73	69	48	45	34	41	37
phosphorous							
Republic of Belarus	29	27	20	18	10	10	14
Region:							
Brest	22	26	20	15	11	12	14
Vitebsk	24	26	13	14	4	4	6
Gomel	32	32	24	23	11	11	18
Grodno	31	31	27	23	10	15	16
Minsk	35	26	22	22	15	14	18
Mogilev	29	24	18	10	8	6	11
potassium							
Republic of Belarus	95	90	81	70	55	45	52
Region:							
Brest	102	101	84	69	65	57	62
Vitebsk	84	82	72	46	27	20	27
Gomel	91	91	89	67	50	40	55
Grodno	106	102	93	88	62	65	80
Minsk	99	85	84	84	75	57	55
Mogilev	85	83	64	66	46	28	33

9.2. Share of land treated with mineral fertilizers in total agricultural land by region

(percent)

	2012	2013	2014	2015	2016	2017	2018
Republic of Belarus	87.0	85.0	83.1	83.5	80.2	79.9	79.7
Region:							
Brest	92.2	88.9	88.2	87.4	86.5	85.7	85.1
Vitebsk	84.4	83.9	79.2	77.1	71.2	68.8	70.7
Gomel	84.7	83.5	85.0	84.8	81.7	82.6	81.6
Grodno	87.8	85.3	84.9	83.8	80.4	82.1	84.2
Minsk	89.6	85.8	85.5	88.4	86.4	84.4	82.5
Mogilev	82.9	82.0	74.8	78.3	73.4	75.1	73.2

9.3. Application of mineral fertilizers in agricultural organisations per hectare of arable land by region

(in terms of 100% content of nutrients; kilogrammes)

	2012	2013	2014	2015	2016	2017	2018
Mineral fertilizers – total							
Republic of Belarus	283	274	236	209	158	155	168
Region:							
Brest	297	301	266	230	200	197	206
Vitebsk	241	250	185	147	85	84	102
Gomel	319	321	280	237	155	152	185
Grodno	293	292	272	250	181	210	234
Minsk	286	243	232	223	192	177	173
Mogilev	269	257	192	169	126	105	114

Continued

	2012	2013	2014	2015	2016	2017	2018
of which:							
nitrogenous							
Republic of Belarus	105	101	87	83	65	76	76
Region:							
Brest	109	102	99	95	81	91	89
Vitebsk	88	93	64	60	39	48	51
Gomel	114	119	100	99	65	79	81
Grodno	109	110	108	100	82	101	106
Minsk	106	90	85	84	75	82	76
Mogilev	107	100	71	63	49	57	52
phosphorous							
Republic of Belarus	46	44	32	27	15	16	21
Region*:*							
Brest	39	47	35	26	19	20	24
Vitebsk	38	41	20	21	6	6	10
Gomel	56	55	40	36	17	16	26
Grodno	46	45	39	33	15	21	23
Minsk	51	38	31	31	21	19	25
Mogilev	46	39	28	15	12	9	16
potassium							
Republic of Belarus	132	129	117	99	77	63	72
Region*:*							
Brest	149	152	132	109	100	87	93
Vitebsk	115	115	101	66	40	30	41
Gomel	150	147	140	102	74	57	78
Grodno	138	136	125	117	84	88	105
Minsk	129	115	116	109	96	76	72
Mogilev	117	118	94	91	66	38	46

9.4. Application of organic fertilizers in agricultural organisations by region

(tonnes)

	2012	2013	2014	2015	2016	2017	2018
Per hectare of agricultural land							
Republic of Belarus	6.3	6.0	6.9	6.8	6.5	6.6	6.3
Region:							
Brest	8.3	8.7	9.3	9.4	8.6	9.0	8.8
Vitebsk	4.0	3.3	4.0	3.5	3.6	3.5	3.3
Gomel	5.0	4.8	6.7	6.0	5.9	5.5	5.4
Grodno	8.2	7.8	8.2	8.3	7.9	7.8	7.7
Minsk	6.9	6.4	7.4	7.5	7.2	8.0	7.4
Mogilev	5.3	5.6	6.2	6.4	5.9	5.7	5.1
Per hectare of arable land							
Republic of Belarus	10.0	9.6	10.7	10.3	9.7	9.8	9.2
Region:							
Brest	14.5	15.0	16.0	16.0	14.4	14.8	14.4
Vitebsk	6.3	5.2	6.1	5.3	5.4	5.5	5.1
Gomel	8.8	8.3	11.2	9.4	9.1	8.1	7.9
Grodno	12.2	11.6	12.0	12.1	11.4	11.4	11.1
Minsk	10.2	9.4	10.7	10.4	9.9	10.9	9.9
Mogilev	8.5	8.8	9.6	9.6	8.9	8.3	7.4

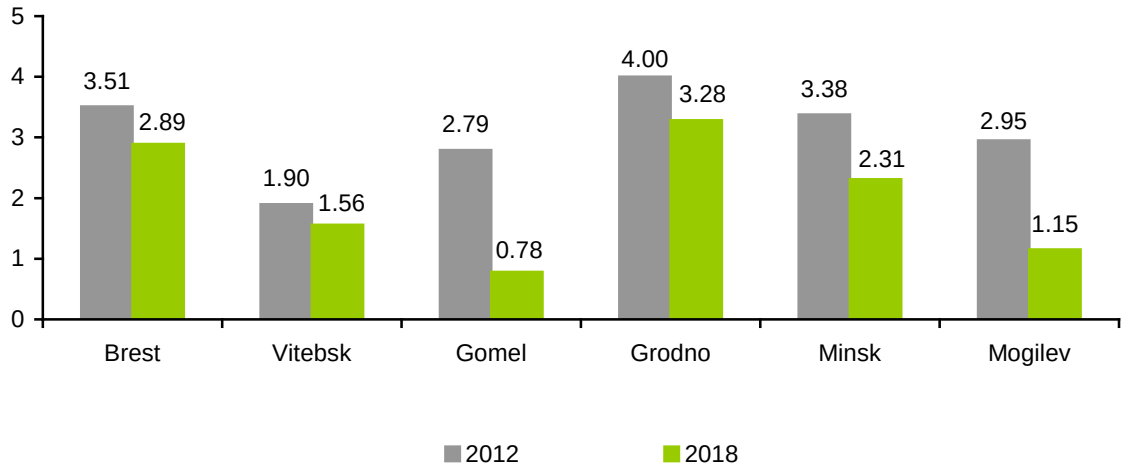
9.5. Application of pesticides per hectare of arable land by region

(kilogrammes)

	2012	2013	2014	2015	2016	2017	2018
Republic of Belarus	3.08	2.98	2.63	1.82	1.72	1.88	1.99
Region:							
Brest	3.51	3.57	3.55	2.48	2.40	2.69	2.89
Vitebsk	1.90	1.81	1.63	1.15	1.07	1.33	1.56
Gomel	2.79	2.23	1.71	1.21	0.84	1.00	0.78
Grodno	4.00	4.18	3.72	2.76	2.68	2.91	3.28
Minsk	3.38	3.41	3.16	2.18	2.24	2.14	2.31
Mogilev	2.95	2.60	1.95	1.15	0.95	1.24	1.15

9.6. Dynamics of pesticide application per hectare of arable land by region

(kilogrammes)



10. SPECIALLY PROTECTED NATURAL AREAS

Specially protected natural areas are the part of the territory of the Republic of Belarus with valuable natural complexes and/or features in respect to which special protection and use regulations are established.

Nature reserve is a natural area designated as such for the purpose of establishing of conditions for the natural course of processes in nature, preservation of natural state and study of valuable natural complexes and features.

National park is a specially protected natural area designated as such to preserve, restore (reproduce) valuable complexes and features, to sustainable serve for nature protection, research, educational, tourism and recreational purposes.

Refuge is a specially protected natural area designated as such to restore and preserve (reproduce) valuable natural complexes and features.

The section is prepared on the basis of data of the Ministry of Natural Resources and Environmental Protection.

10.1. Specially protected natural areas in the Republic of Belarus

(as of January 1)

	2013	2015	2017	2018	2019		
					number of areas	total area, thsd ha	share of specially protected natural areas in total country area, %
Total specially protected natural areas	1 220	1 265	1 287	1 285	1 289	1 861.5	8.9
of which:							
nature reserves, national parks	5	5	5	5	5	474.9	2.3
refuges	333	373	376	376	381	1 372.6	6.6
national significance	85	98	98	99	99	968.7	4.7
local significance	248	275	278	277	282	403.9	2.0
natural monuments	882	887	906	904	903	14.0	0.1
national significance	306	319	329	326	326	3.3	0.0
local significance	576	568	577	578	577	10.7	0.1

10.2. Specially protected natural areas by regions and Minsk city as of January 1, 2019

	Nature reserves, national parks			Refuges of national significance		
	number	thsd ha	as % of total land area	number	thsd ha	as % of total land area
Republic of Belarus	5[1)]	474.9	2.3	99	968.7	4.7
Regions and Minsk city:						
Brest	1	86.3	2.6	18	344.7	10.5
Vitebsk	3	131.8	3.3	25	189.8	4.7
Gomel	1	88.0	2.2	13	113.0	2.8
Grodno	2	64.0	2.6	15	130.7	5.2
Minsk city	–	–	–	2	0.5	1.4
Minsk	2	104.8	2.6	23	124.9	3.1
Mogilev	–	–	–	5	65.1	2.2

	Refuges of local significance			Natural monuments	
	number	thsd ha	as % of total land area	of national significance	of local significance
Republic of Belarus	282	403.9	2.0	326	577
Regions and Minsk city:					
Brest	31	49.2	1.5	29	66
Vitebsk	62	64.8	1.6	86	144
Gomel	43	96.9	2.4	13	51
Grodno	28	55.0	2.2	95	123
Minsk city	–	–	–	2	8
Minsk	51	72.1	1.8	87	108
Mogilev	67	65.9	2.3	14	77

[1)] The total number of nature reserves, national parks and refuges of national significance is given considering the fact that the Berezinsky Biosphere Reserve, the National Park “Belovezhskaya Pushcha”, the National Park “Narochansky” and some refuges of national significance are situated in the territory of several regions.

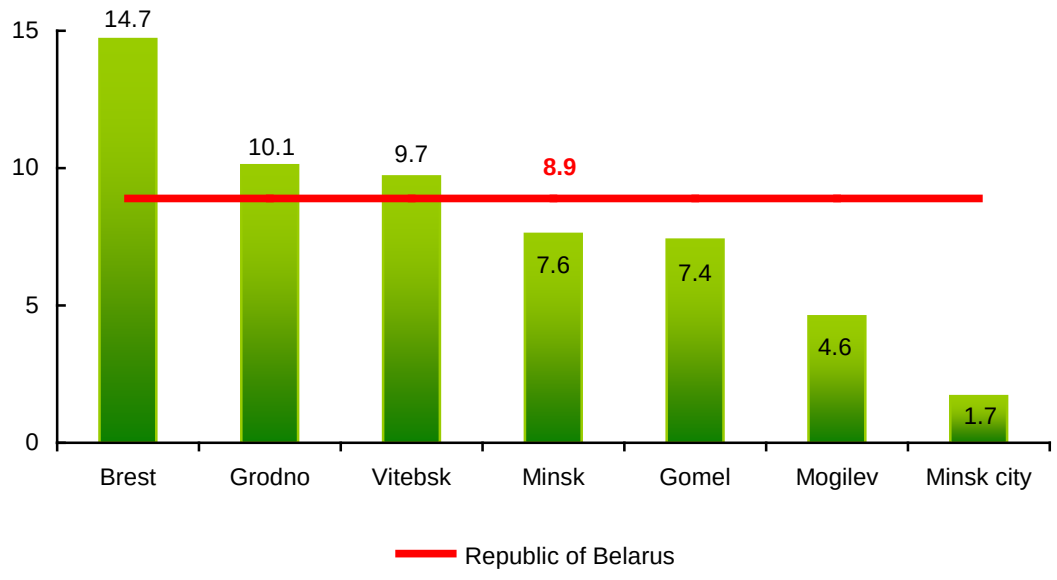
10.3. Proportion of specially protected natural areas in the total area of the country, regions and Minsk city

(as of January 1; percent)

	2013	2014	2015	2016	2017	2018	2019
Republic of Belarus	7.6	7.8	8.2	8.8	8.7	8.7	8.9
Regions and Minsk city:							
Brest	13.9	14.0	14.1	14.2	14.4	14.4	14.7
Vitebsk	8.7	8.8	8.8	9.5	9.5	9.5	9.7
Gomel	5.0	5.7	6.8	7.4	7.4	7.4	7.4
Grodno	9.8	9.9	9.8	9.9	10.1	10.1	10.1
Minsk city	0.4	0.4	0.4	1.7	1.7	1.7	1.7
Minsk	6.2	6.4	6.9	7.6	7.6	7.6	7.6
Mogilev	2.3	2.3	3.8	4.4	3.0	3.5	4.6

10.4. Proportion of specially protected natural areas in the area of the country, regions and Minsk city as of January 1, 2019

(percent)



10.5. Main characteristics of nature reserves and national parks

(as of January 1, 2019)

	Location (region, district), year of foundation	Total area, thsd ha	Designation
		Nature reserves	
Berezinsky Biosphere Reserve	**Vitebsk region**, Dokshytsy and Lepel districts; **Minsk region**, Borisov district **1925**	85.2	Preservation of the natural reference and other high-value natural complexes and features, study of flora and fauna, typical and unique ecosystems and landscapes characteristic of the Eastern European mixed forest zone, creation of conditions to ensure the conservation of natural processes. A distinctive feature of the reserve is a unique complex of forest and wetland ecosystems that almost completely preserved their natural state.
Polessky State Radiation and Ecological Reserve	**Gomel region**, Bragin, Narovlya and Hoyniki districts **1988**	217.2	Restricting public access to the areas contaminated as a result of the disaster at the Chernobyl nuclear power plant, from which the population was evacuated and resettled; radiation protection, prevention of the spread of radionuclides, radiation monitoring, radio-ecological research, study of flora and fauna, typical and unique ecosystems and landscapes, natural processes characteristic of Pripyat Polessye. The features of the reserve are the presence of high levels of environmental pollution as a result of the disaster at the Chernobyl nuclear power plant, including transuranic isotopes, restoration of the natural state of biogeocenoses as a result of removal of anthropogenic load.

Continued

	Location (region, district), year of foundation	Total area, thsd ha	Designation
		National parks	
Belovezhskaya Pushcha	**Brest region,** Kamenets and Pruzhany districts; **Grodno region,** Svisloch district **1939**	150.1	Preservation in the natural state and comprehensive study of the natural standard and unique features of the Bialowieza forest, of biological and landscape diversity of the area, restoration of damaged natural complexes and objects of special ecological, historical, cultural and aesthetic value as well as their use for nature protection, scientific, educational and recreational purposes.
Braslavskie Ozera (the Braslav Lakes)	**Vitebsk region,** Braslav district **1995**	64.5	Preservation of the natural complex of the Braslav Lakes as an etalon of natural landscapes, storage of genetic stock of the flora and fauna of the Belarusian Lake Land and its use for nature protection, scientific, educational, tourism and recreational purposes.
Pripyatsky	**Gomel region,** Zhitkovichi, Petrikov and Lelchitsy districts **1969**	88.0	Preservation of the natural complex of the valley of the Pripyat river as an etalon of natural landscapes, storage of the genetic stock of flora and fauna of Belarusian Polessye and its use for nature protection, scientific, educational, tourism and recreational purposes.
Narochansky	**Minsk region,** Myadel and Vileyka districts; **Vitebsk region,** Postavy district; **Grodno region,** Smorgon district **1999**	87.1	Preservation of unique natural complexes joined by Lake Narach as etalon landscapes, storage of genetic stock of the flora and fauna of the Belarusian Lake Land and their more complete and efficient use for nature protection, scientific, educational, tourism and recreational purposes.

10.6. Rare and endangered wildlife species listed in the Red Book of the Republic of Belarus

(number of species)

	2012	2013	2014	2015	2016	2017	2018
Plants – total	293	293	303	303	303	303	303
of which:							
angiosperms	166	166	173	173	173	173	173
gymnosperms	1	1	1	1	1	1	1
horsetails, club mosses, ferns	15	15	15	15	15	15	15
mosses	31	31	34	34	34	34	34
lichens	24	24	25	25	25	25	25
algae	21	21	21	21	21	21	21
fungi	35	35	34	34	34	34	34
Mammals	17	17	20	20	20	20	20
Birds	71	71	70	70	70	70	70
Reptiles	2	2	2	2	2	2	2
Amphibians	2	2	2	2	2	2	2
Fish and fish-shaped	10	10	9	9	9	9	9

11. PROTECTION AND USE OF FOREST RESOURCES

Forest stock land is forest land and non-forest land within the boundaries of forest stock area allotted for forestry management.

Forest-covered land is land of the forest stock covered with tree vegetation, either naturally growing or planted, and shrubs.

Percent forest cover is a ratio of the forest-covered area to the total land area of the country (region, district).

Reforestation is restocking of forests in areas where forest was previously growing, through seeding and/or planting of forest plants (artificial reforestation) and natural forest regeneration.

Afforestation is the establishment of forests in areas were forest was not previously growing, through seeding and/or planting of forest plants.

Timber cut by all cutting types is timber procurement by final, intermediate and other cutting.

Timber cut by final cutting type is felling of ripe and overripe stands for timber procurement.

Forest pest and disease control is a set of measures designed to prevent forest damage by harmful organisms and to extinguish pest and disease foci, mostly using biological (a release of predaceous and parasitic insects (entomophages) in pest affected areas; application of fungous, bacterial and virus preparations) and chemical (involves application of pesticides (toxic chemicals)) methods.

11.1. Forest stock land by region[1)]

(as of January 1; thousand hectares)

	2013	2014	2015	2016	2017	2018	2019
Total area of forest stock							
Republic of Belarus	9 468.6	9 477.1	9 499.5	9 549.2	9 565.8	9 582.0	9 598.5
Region:							
Brest	1 406.0	1 410.4	1 411.1	1 414.1	1 414.7	1 416.5	1 421.7
Vitebsk	1 854.7	1 855.1	1 866.4	1 885.6	1 889.3	1 892.7	1 894.5
Gomel	2 257.1	2 262.0	2 270.9	2 282.9	2 284.3	2 284.5	2 291.7
Grodno	987.9	989.2	989.1	989.3	990.1	996.1	996.6
Minsk	1 716.8	1 714.4	1 713.9	1 715.2	1 723.7	1 727.0	1 727.1
Mogilev	1 246.1	1 246.1	1 248.1	1 262.2	1 263.7	1 265.1	1 266.9
of which forested area							
Republic of Belarus	8 123.3	8 160.4	8 204.1	8 239.8	8 259.4	8 260.9	8 256.9
Region:							
Brest	1 173.6	1 184.1	1 186.7	1 188.6	1 187.4	1 185.7	1 193.6
Vitebsk	1 590.7	1 592.6	1 616.0	1 633.5	1 641.8	1 644.3	1 646.8
Gomel	1 861.1	1 880.5	1 892.3	1 896.3	1 902.4	1 890.4	1 879.1
Grodno	877.1	880.7	882.6	883.0	883.5	897.9	897.9
Minsk	1 530.7	1 528.2	1 527.0	1 532.7	1 535.9	1 533.1	1 527.6
Mogilev	1 090.1	1 094.3	1 099.5	1 105.6	1 108.6	1 109.5	1 111.9

[1)] Data of the Ministry of Forestry.

11.2. Forest cover of the territory at the country, regional and district levels[1)]

(as of January 1; percent)

	2013	2014	2015	2016	2017	2018	2019
Republic of Belarus	39.1	39.3	39.5	39.7	39.8	39.8	39.8
Brest region	35.8	36.1	36.2	36.3	36.3	36.2	36.4
District:							
Baranovichy	30.3	30.3	30.4	30.5	30.6	30.5	30.7
Bereza	25.8	25.8	25.7	25.6	25.6	25.5	25.4
Brest	32.8	33.4	33.5	33.5	33.4	33.7	33.6
Gantsevichy	53.4	53.4	53.3	53.4	53.4	53.5	56.8
Drogichin	24.9	25.9	26.2	26.1	26.1	26.0	25.9
Zhabinka	17.6	18.7	18.8	18.7	18.7	18.7	18.7
Ivanovo	27.4	27.6	27.9	28.1	28.1	28.2	28.5
Ivatsevichy	49.2	49.1	49.1	49.0	49.0	48.9	49.3
Kamenets	28.2	28.3	28.4	28.4	28.4	28.4	29.0
Kobrin	26.2	26.7	26.9	27.0	27.0	26.9	26.7
Luninets	43.4	43.7	43.6	43.7	43.7	43.7	43.3
Lyakhovichy	37.3	37.2	37.3	37.3	37.3	37.3	37.0
Malorita	45.8	46.9	47.3	47.4	47.3	47.4	47.1
Pinsk	30.6	30.6	30.7	30.7	30.7	30.4	30.7
Pruzhany	41.5	41.5	41.6	42.0	43.3	43.3	43.5
Stolin	35.8	36.9	36.9	36.9	36.9	36.7	36.5

Continued

	2013	2014	2015	2016	2017	2018	2019
Vitebsk region	39.7	39.8	40.3	40.8	40.8	41.0	41.1
District:							
Beshenkovichy	27.1	27.1	27.6	27.7	27.7	27.8	28.3
Braslav	35.5	35.4	35.3	35.3	35.3	35.3	34.7
Verkhnedvinsk	39.7	39.9	40.3	40.9	40.9	40.9	40.8
Vitebsk	36.9	36.9	37.2	37.6	37.6	37.5	37.5
Glubokoye	26.9	26.9	26.9	27.6	27.6	27.6	27.6
Gorodok	52.6	52.7	52.7	54.7	54.7	55.0	55.0
Dokshitsy	49.2	49.3	49.3	49.7	49.7	51.4	51.5
Dubrovno	25.2	25.4	25.4	26.4	26.4	26.6	26.4
Lepel	53.6	53.7	53.8	53.9	53.9	53.8	53.9
Liozno	42.7	42.6	44.8	44.8	44.8	44.8	45.0
Miory	26.1	26.1	26.3	26.3	26.3	26.3	26.7
Orsha	22.1	22.2	22.2	22.7	22.7	22.7	22.5
Polotsk	54.3	54.4	54.8	55.1	55.2	55.2	55.9
Postavy	34.0	34.0	34.0	34.0	34.0	34.6	34.5
Rossony	66.3	66.1	71.2	71.3	71.3	71.4	71.3
Senno	37.1	37.3	37.6	39.2	39.2	39.2	39.2
Tolochin	29.7	29.6	32.0	32.4	32.4	32.5	33.0
Ushachy	41.4	41.7	41.9	42.5	42.5	42.7	43.4
Chashniki	29.2	29.2	29.3	29.3	29.3	29.4	29.7
Sharkovshchina	24.1	24.2	24.2	24.2	24.2	25.0	25.1
Shumilino	42.4	42.5	42.8	42.8	42.8	42.7	42.6

Continued

	2013	2014	2015	2016	2017	2018	2019
Gomel region	46.1	46.6	46.9	47.0	46.9	47.1	46.4
District:							
Bragin	36.5	36.8	37.1	37.2	37.2	37.3	36.1
Buda-Koshelyovo	22.9	23.0	23.1	23.3	23.3	23.6	23.8
Vetka	43.1	43.9	44.5	45.0	45.0	46.4	46.7
Gomel	35.0	35.1	35.3	35.5	35.9	35.7	35.3
Dobrush	25.2	25.2	25.2	25.3	25.3	25.6	25.5
Yelsk	56.5	56.6	56.7	56.6	56.6	56.7	56.2
Zhitkovichy	53.4	54.5	54.6	54.6	54.6	54.7	54.8
Zhlobin	33.9	34.1	34.5	34.5	34.5	34.4	33.5
Kalinkovichy	48.7	50.0	50.1	50.1	50.1	50.2	49.1
Korma	29.3	30.2	30.5	33.2	33.2	33.3	32.8
Lelchitsy	66.9	69.0	69.1	69.2	69.2	69.1	68.2
Loyev	35.6	35.8	36.4	36.6	36.6	37.1	35.7
Mozyr	52.3	52.6	53.6	53.8	53.8	53.3	52.2
Narovlya	63.0	63.7	64.4	64.5	64.5	64.7	64.1
Oktyabrsky	56.7	56.7	56.7	56.7	56.7	56.6	55.4
Petrikov	53.5	53.8	55.0	55.2	55.2	55.3	54.5
Rechitsa	43.7	43.6	43.7	43.6	43.6	43.6	42.1
Rogachev	33.5	33.6	33.7	33.8	33.8	33.8	33.3
Svetlogorsk	51.1	51.0	50.9	50.9	50.9	51.5	50.5
Khoyniki	48.3	48.4	48.4	47.3	47.3	47.6	47.3
Chechersk	48.8	48.8	49.0	49.0	49.0	49.0	48.3

Continued

	2013	2014	2015	2016	2017	2018	2019
Grodno region	34.9	35.0	35.1	35.1	35.1	35.2	35.7
District:							
Berestovitsa	15.3	15.3	15.3	15.3	15.3	15.2	15.1
Volkovysk	23.0	23.1	23.0	22.9	22.9	22.9	22.8
Voronovo	26.8	26.9	26.9	27.0	27.0	27.0	27.4
Grodno	38.0	38.0	38.0	37.9	37.8	37.7	37.7
Dyatlovo	44.5	44.6	44.8	45.0	45.0	45.0	46.4
Zelva	15.9	16.4	16.6	16.5	16.5	17.3	17.4
Ivye	44.3	44.3	44.4	44.5	44.5	44.5	45.4
Korelichy	20.3	20.5	20.6	20.7	20.7	20.7	21.2
Lida	26.2	26.2	26.2	26.2	26.2	26.1	27.4
Mosty	34.6	34.6	34.7	34.7	34.7	34.7	35.1
Novogrudok	40.4	40.7	40.9	41.2	41.2	41.2	41.8
Ostrovets	48.1	48.7	48.7	48.7	48.7	48.7	48.7
Oshmyany	33.7	33.8	33.9	34.1	34.1	34.0	35.4
Svisloch	47.0	47.2	47.2	47.1	47.1	47.3	48.2
Slonim	36.0	36.3	36.6	36.5	36.5	36.6	36.2
Smorgon	36.8	37.1	37.3	37.4	37.4	37.4	38.5
Shchuchin	32.8	32.7	32.6	32.5	32.5	32.4	33.3

Continued

	2013	2014	2015	2016	2017	2018	2019
Minsk region	38.1	38.0	38.0	38.1	38.2	38.1	38.0
District:							
Berezino	48.8	48.7	49.2	49.6	49.6	50.8	51.3
Borisov	50.4	50.7	50.7	51.5	51.5	51.5	51.4
Vileyka	40.6	40.6	40.7	40.7	40.7	40.7	40.6
Volozhin	36.9	36.9	37.0	37.0	37.0	37.1	36.9
Dzerzhinsk	29.2	29.3	29.4	29.1	29.1	29.1	28.9
Kletsk	25.8	25.8	25.8	25.7	25.7	25.7	25.3
Kopyl	17.6	17.7	17.7	17.8	17.8	18.1	17.7
Krupki	48.4	48.4	48.2	48.2	50.7	50.7	50.8
Logoysk	51.0	49.9	48.8	48.8	48.8	49.4	50.3
Lyuban	37.3	37.2	37.3	37.5	37.5	37.9	36.3
Minsk	26.1	26.1	26.1	26.1	26.1	26.0	26.1
Molodechno	31.0	31.2	31.3	31.5	31.5	31.6	31.8
Myadel	42.2	42.2	42.2	42.2	42.2	42.2	42.1
Nesvizh	11.0	11.1	11.1	11.1	11.1	11.1	11.0
Pukhovichy	39.3	39.2	39.2	39.2	39.2	39.3	39.2
Slutsk	21.6	21.7	21.7	21.6	21.6	22.1	21.5
Smolevichy	33.4	33.3	33.3	33.0	33.0	28.9	28.5
Soligorsk	35.5	35.4	35.4	35.5	35.5	35.3	34.5
Staryie Dorogi	49.9	49.9	49.8	49.8	49.8	50.5	48.9
Stolbtsy	46.0	46.1	46.2	46.3	46.3	46.4	46.3
Uzda	39.7	39.5	39.4	39.4	39.4	39.4	39.0
Cherven	39.4	39.3	39.2	40.5	40.5	38.3	37.3

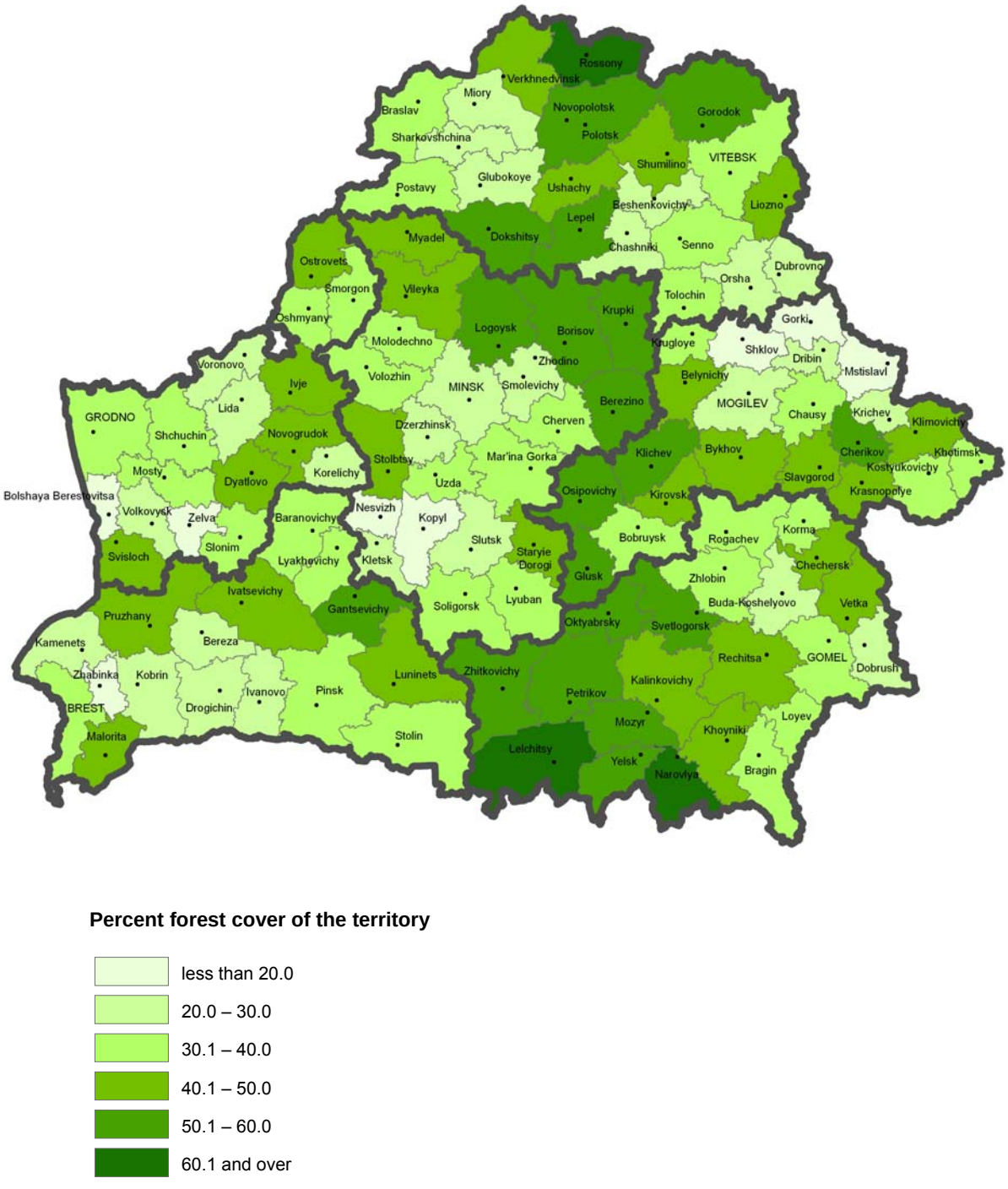
Continued

	2013	2014	2015	2016	2017	2018	2019
Mogilev region	38.5	38.5	37.8	38.0	38.1	38.2	38.0
District:							
Belynichy	44.7	44.9	45.0	45.3	45.3	45.3	45.0
Bobruysk	37.3	37.3	37.4	37.4	37.5	37.5	37.4
Bykhov	43.7	44.0	44.1	44.3	44.3	44.5	44.2
Glusk	52.4	52.7	52.7	52.8	52.8	52.7	51.9
Gorki	16.0	16.2	16.4	16.5	16.5	16.6	16.4
Dribin	26.6	26.6	26.9	27.1	27.1	27.1	26.9
Kirovsk	40.0	40.4	40.4	40.4	40.4	40.5	40.2
Klimovichy	40.5	40.7	41.0	41.1	41.4	41.8	41.7
Klichev	57.3	57.5	57.7	58.5	58.6	58.9	58.4
Kostyukovichy	34.0	34.0	33.8	34.0	34.0	33.9	33.9
Krasnopolye	45.5	45.5	46.0	46.0	46.0	46.1	46.1
Krichev	24.7	24.8	25.0	25.2	25.2	25.1	25.5
Krugloye	30.5	30.6	30.6	31.0	32.0	30.6	30.5
Mogilev	24.4	24.4	24.9	25.1	25.2	25.4	25.4
Mstislavl	15.8	15.9	16.0	16.2	16.2	16.4	16.4
Osipovichy	56.7	56.9	57.0	56.7	56.7	56.5	56.2
Slavgorod	42.5	42.7	42.9	43.0	43.0	43.0	43.1
Khotimsk	33.5	33.4	33.3	33.3	33.3	33.3	33.3
Chausy	30.4	30.5	30.8	31.6	31.6	32.0	32.3
Cherikov	48.8	49.3	50.0	50.6	50.6	51.0	51.3
Shklov	18.0	17.9	18.1	18.3	18.3	18.2	18.1

[1)] Data of the Ministry of Forestry.

11.3. Forest cover of the territory by districts as of January 1, 2019[1)]

(percent)



Percent forest cover of the territory

- less than 20.0
- 20.0 – 30.0
- 30.1 – 40.0
- 40.1 – 50.0
- 50.1 – 60.0
- 60.1 and over

[1)] Data of the Ministry of Forestry.

11.4. Main activities in forestry

	2012	2013	2014	2015	2016	2017	2018
Reforestation and afforestation, ha:	31 172	30 284	32 374	33 094	37 179	40 408	43 445
assistance to natural forest regeneration and preservation of undergrowth	6 430	6 534	6 127	6 608	5 603	6 224	6 946
forest planting and seeding	24 742	23 750	26 247	26 486	31 576	34 184	36 499
Introduction of forest plantations in the category of valuable forest plantations, ha	52 284	58 369	59 237	54 039	44 553	39 949	37 258
Seed harvesting of wood and shrub species, t	184.9	174.5	86.1	162.1	27.6	44.7	258.4
Forest felling area[1)], thsd ha	545.0	535.3	523.9	466.9	487.5	451.0	499.1
Marketable timber harvested[1)], thsd m^3	18 059	18 521	19 550	18 473	21 071	23 801	28 590
Forest pest and disease control, ha:							
biological	23 673	35 103	23 904	22 458	21 640	23 528	47 266
chemical	664	556	356	357	1 367	1 052	675
Forest fire control with the aid of aviation, thsd ha	9 375	9 410	9 420	9 461	9 526	9 560	9 570

Continued

	2012	2013	2014	2015	2016	2017	2018
			As % of previous year				
Reforestation and afforestation	102.0	97.2	106.9	102.2	112.3	108.7	107.5
Introduction of forest plantations in the category of valuable forest plantations	101.2	111.6	101.5	91.2	82.4	89.7	93.3
Seed harvesting of wood and bush species	273.9	94.4	49.3	188.3	17.0	162.2	578
Forest felling area	94.2	98.2	97.9	89.1	104.4	92.5	110.7
Marketable timber harvested	102.2	102.6	105.6	94.5	114.1	113.0	120.1
Forest pest and disease control							
biological	104.0	148.3	68.1	94.0	96.4	108.7	200.9
chemical	39.2	83.7	64.0	100.3	383	77.0	64.1
			As % of 2010				
Reforestation and afforestation	94.5	91.8	98.2	100.3	112.7	122.5	131.7
Introduction of forest plantations in the category of valuable forest plantations	119.6	133.6	135.6	123.7	102.0	91.4	85.3
Seed harvesting of wood and bush species	80.0	75.5	37.3	70.2	11.9	19.4	111.9
Forest felling area	117.9	115.8	113.3	101.0	105.4	97.5	107.9
Marketable timber harvested	116.7	119.7	126.3	119.4	136.2	153.8	184.8
Forest pest and disease control							
biological	104.1	154.4	105.2	98.8	95.2	103.5	207.9
chemical	227.4	190.4	121.9	122.3	468	360	230.9

[1)] Data of the Ministry of Forestry.

11.5. Reforestation and afforestation by region

	2012	2013	2014	2015	2016	2017	2018
Total, ha							
Republic of Belarus	31 172	30 284	32 374	33 094	37 179	40 408	43 445
Region:							
Brest	4 066	3 963	3 574	3 383	3 762	3 753	6 525
Vitebsk	6 029	5 825	6 144	6 048	6 122	5 922	5 489
Gomel	7 190	6 985	7 329	7 509	8 896	11 963	13 441
Grodno	3 917	3 775	4 214	3 810	3 476	2 651	3 405
Minsk	5 655	5 424	5 668	5 471	8 570	10 411	8 980
Mogilev	4 315	4 312	5 445	6 873	6 353	5 708	5 605
of which:							
assistance to natural forest regeneration and preservation of undergrowth							
Republic of Belarus	6 430	6 534	6 127	6 608	5 603	6 224	6 946
Region:							
Brest	989	1 127	834	662	642	853	1 270
Vitebsk	1 864	2 067	1 934	1 892	1 692	1 362	1 495
Gomel	1 210	1 093	971	1 117	1 179	1 377	1 482
Grodno	470	659	502	522	389	390	433
Minsk	974	653	936	1 103	764	1 117	1 116
Mogilev	923	935	950	1 312	937	1 125	1 150
forest planting and seeding							
Republic of Belarus	24 742	23 750	26 247	26 486	31 576	34 184	36 499
Region:							
Brest	3 077	2 836	2 740	2 721	3 120	2 900	5 255
Vitebsk	4 165	3 758	4 210	4 156	4 430	4 560	3 994
Gomel	5 980	5 892	6 358	6 392	7 717	10 586	11 959
Grodno	3 447	3 116	3 712	3 288	3 087	2 261	2 972
Minsk	4 681	4 771	4 732	4 368	7 806	9 294	7 864
Mogilev	3 392	3 377	4 495	5 561	5 416	4 583	4 455

Continued

	2012	2013	2014	2015	2016	2017	2018
of which using selected planting and improved seeding stock							
Republic of Belarus	8 827	9 161	9 915	10 611	12 908	15 512	18 977
Region:							
Brest	1 350	1 150	1 170	1 201	1 204	1 422	2 485
Vitebsk	1 373	1 504	1 572	1 510	1 890	2 381	2 469
Gomel	1 210	1 386	1 425	1 836	2 924	4 915	6 236
Grodno	1 707	1 713	2 037	1 705	1 630	1 318	1 619
Minsk	1 909	1 918	2 053	2 012	2 788	2 779	3 678
Mogilev	1 278	1 490	1 658	2 347	2 472	2 697	2 490

11.6. Introduction of forest plantations in the category of valuable forest plantations by region

(hectares)

	2012	2013	2014	2015	2016	2017	2018
Republic of Belarus	52 284	58 369	59 237	54 039	44 553	39 949	37 258
Region:							
Brest	6 113	6 429	7 246	5 715	3 748	3 461	3 566
Vitebsk	9 341	10 509	10 461	10 860	9 749	7 804	7 123
Gomel	13 639	15 122	14 644	13 110	11 355	10 154	9 805
Grodno	5 050	6 745	5 353	4 561	2 913	3 745	4 379
Minsk	9 975	8 283	8 720	8 687	7 878	7 835	6 731
Mogilev	8 166	11 281	12 813	11 106	8 910	6 950	5 654

11.7. Seed harvesting of wood and shrub species by region

(tonnes)

	2012	2013	2014	2015	2016	2017	2018
Total							
Republic of Belarus	184.9	174.5	86.1	162.1	27.6	44.7	258.4
Region:							
Brest	29.9	9.4	8.1	11.2	3.3	11.6	20.7
Vitebsk	5.8	5.7	7.0	13.2	3.9	3.0	16.3
Gomel	90.2	80.4	27.6	87.0	3.4	10.2	75.0
Grodno	10.0	11.7	6.2	6.5	4.4	7.0	20.0
Minsk	27.4	25.0	14.3	19.1	8.5	8.2	45.1
Mogilev	21.6	42.3	22.9	25.1	4.1	4.7	81.3
of which: Coniferous species							
Republic of Belarus	17.6	3.6	11.4	31.5	7.0	15.1	7.6
Region:							
Brest	2.4	0.9	1.5	1.5	0.6	1.4	0.7
Vitebsk	3.4	0.1	1.3	11.6	0.8	2.3	0.4
Gomel	2.1	1.1	2.7	2.9	1.9	3.6	2.7
Grodno	2.0	0.5	1.0	2.9	0.3	1.6	1.1
Minsk	4.0	0.6	2.5	7.3	1.5	3.0	1.7
Mogilev	3.7	0.4	2.3	5.3	2.0	3.1	1.0
of which: pine tree							
Republic of Belarus	5.1	3.3	10.9	7.2	6.2	11.2	6.4
Region:							
Brest	1.0	0.9	1.5	0.8	0.5	1.1	0.7
Vitebsk	0.3	0.1	1.3	0.4	0.4	0.7	0.2
Gomel	1.9	1.0	2.7	2.8	1.9	3.6	2.7
Grodno	0.2	0.4	1.0	0.4	0.3	0.9	0.3
Minsk	0.6	0.5	2.5	0.9	1.1	2.0	1.4
Mogilev	1.1	0.3	1.9	2.0	1.9	2.9	1.0

Continued

	2012	2013	2014	2015	2016	2017	2018
spruce							
Republic of Belarus	12.4	0.3	0.5	24.3	0.8	3.8	1.2
Region:							
Brest	1.3	–	–	0.6	0.1	0.2	0.0
Vitebsk	3.1	0.0	0.0	11.2	0.3	1.6	0.2
Gomel	0.2	0.0	0.0	0.1	0.0	0.1	0.0
Grodno	1.8	0.0	–	2.5	0.0	0.7	0.8
Minsk	3.4	0.1	0.0	6.5	0.4	1.0	0.2
Mogilev	2.6	0.1	0.5	3.3	0.0	0.2	–
Deciduous and shrub species							
Republic of Belarus	167.4	170.9	74.7	130.6	20.6	29.6	250.8
Region:							
Brest	27.5	8.5	6.6	9.8	2.8	10.2	20.0
Vitebsk	2.4	5.6	5.7	1.6	3.1	0.7	16.0
Gomel	88.2	79.4	24.9	84.1	1.5	6.5	72.3
Grodno	8.0	11.2	5.2	3.6	4.1	5.4	18.9
Minsk	23.4	24.3	11.9	11.8	7.0	5.1	43.4
Mogilev	17.9	41.8	20.5	19.8	2.2	1.7	80.3
of which oak							
Republic of Belarus	159.9	163.1	66.0	122.1	12.7	23.6	239.9
Region:							
Brest	25.6	7.1	5.2	8.2	1.2	9.5	18.5
Vitebsk	1.9	5.1	4.7	0.7	2.4	0.2	14.6
Gomel	87.2	78.1	23.4	83.1	0.6	5.7	70.8
Grodno	7.2	10.3	3.7	2.4	2.8	4.7	17.3
Minsk	20.8	21.1	9.0	8.6	4.4	3.4	41.0
Mogilev	17.2	41.4	19.9	19.0	1.3	0.1	77.6

11.8. Forest felling area by region[1)]

(thousand hectares)

	2012	2013	2014	2015	2016	2017	2018
All cutting types							
Republic of Belarus	545.0	535.3	523.9	466.9	487.5	451.0	499.1
Region:							
Brest	111.5	107.8	99.8	91.0	91.9	89.4	98.8
Vitebsk	66.9	63.6	65.2	58.9	60.0	58.7	64.2
Gomel	112.1	117.5	100.4	86.3	87.5	80.5	90.6
Grodno	56.3	56.0	57.9	48.6	44.5	41.9	52.7
Minsk	123.2	119.4	125.0	112.3	128.7	115.5	117.1
Mogilev	75.1	70.9	75.5	69.9	74.9	65.1	75.6
of which final cutting							
Republic of Belarus	28.1	30.5	37.5	31.3	25.1	25.0	27.1
Region:							
Brest	4.3	4.2	6.7	4.2	3.3	3.0	2.6
Vitebsk	5.4	6.1	7.4	6.3	4.9	5.5	7.9
Gomel	6.6	7.8	8.3	6.8	6.9	6.0	4.7
Grodno	2.7	2.4	2.5	2.3	1.7	2.1	2.7
Minsk	6.3	6.4	6.9	5.8	3.8	4.2	5.4
Mogilev	2.9	3.5	5.7	6.0	4.5	4.2	3.8

[1)] Data of the Ministry of Forestry.

11.9. Marketable timber harvest by region[1)]

(thousand cubic metres)

	2012	2013	2014	2015	2016	2017	2018
All cutting types							
Republic of Belarus	18 059	18 521	19 550	18 473	21 071	23 801	28 590
Region:							
Brest	2 220	2 204	2 298	2 357	2 414	3 215	3 610
Vitebsk	3 210	3 336	3 406	3 339	2 987	3 208	3 811
Gomel	3 637	3 983	4 149	3 790	3 940	6 496	8 602
Grodno	1 965	1 989	2 184	1 976	1 953	2 070	2 442
Minsk	3 852	3 735	3 846	3 600	6 350	5 389	5 735
Mogilev	3 175	3 273	3 669	3 412	3 427	3 423	4 390
of which final cutting							
Republic of Belarus	6 522	7 143	7 786	7 480	6 062	6 293	7 055
Region:							
Brest	856	839	842	849	716	656	631
Vitebsk	1 238	1 415	1 489	1 495	1 130	1 335	1 993
Gomel	1 551	1 853	1 868	1 634	1 638	1 528	1 202
Grodno	653	637	666	603	492	600	736
Minsk	1 459	1 481	1 557	1 462	936	1 095	1 468
Mogilev	765	918	1 364	1 437	1 150	1 078	1 026

[1)] Data of the Ministry of Forestry.

11.10. Forest pest and disease control by region

(hectares)

	2012	2013	2014	2015	2016	2017	2018
Biological control							
Republic of Belarus	23 673	35 103	23 904	22 458	21 640	23 528	47 266
Region:							
Brest	3 567	13 962	2 876	3 024	2 670	2 751	2 693
Vitebsk	3 032	3 017	3 161	2 767	2 584	2 944	3 583
Gomel	7 565	8 416	7 329	7 400	6 807	6 846	7 270
Grodno	2 722	2 937	3 730	2 719	2 712	3 507	3 967
Minsk	4 317	4 354	4 315	4 133	4 414	4 262	26 147
Mogilev	2 469	2 417	2 492	2 416	2 453	3 219	3 606
Chemical control							
Republic of Belarus	664	556	356	357	1 367	1 052	675
Region:							
Brest	49	40	34	31	479	675	83
Vitebsk	108	59	87	78	86	94	163
Gomel	26	249	27	28	505	46	101
Grodno	38	33	32	39	58	59	75
Minsk	140	109	112	99	131	97	163
Mogilev	303	66	64	83	108	82	90

11.11. Pest-affected forest area

(end of year; hectares)

	2012	2013	2014	2015	2016	2017	2018
Total pest-affected area	209 495	193 881	191 905	176 753	178 938	206 474	152 648
of which with:							
needle-eating pests	553	575	335	691	975	35 855	5 228
leaf-eating pests	23 047	11 007	8 526	2 668	1 377	867	309
other pests	1 872	1 883	2 511	2 383	4 060	9 975	7 152
forest diseases	184 023	180 416	180 533	171 011	172 526	159 777	139 959

11.12. Area of forest loss by region

(hectares)

	2012	2013	2014	2015	2016	2017	2018
Republic of Belarus	9 848	8 222	8 594	13 660	27 206	35 367	49 965
Region:							
Brest	736	686	764	1 978	2 913	6 394	8 141
Vitebsk	1 819	1 775	1 319	1 250	1 341	1 006	838
Gomel	1 212	704	1 578	6 369	4 012	16 075	22 718
Grodno	800	875	1 215	1 039	1 350	1 275	2 206
Minsk	1 542	972	1 145	983	14 440	7 188	9 183
Mogilev	3 739	3 210	2 572	2 041	3 150	3 429	6 879

11.13. Area of forest loss by cause

(hectares)

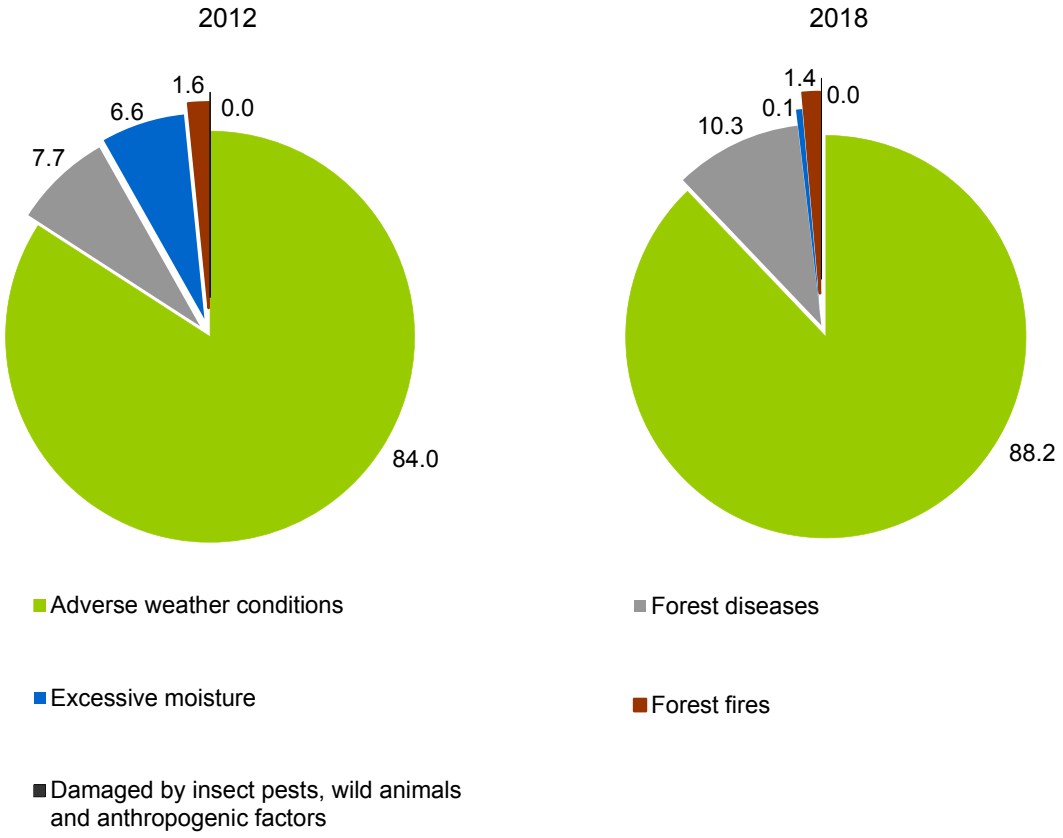
	2012	2013	2014	2015	2016	2017	2018
Total							
Total forest loss	9 848	8 222	8 594	13 660	27 206	35 367	49 965
of which by cause:							
damaged by insect pests	–	2	24	8	–	4	6
damaged by wild animals	2	–	2	–	5	1	–
forest diseases	760	541	697	985	1 554	2 336	5 122
anthropogenic factors	–	–	1	–	–	9	–
adverse weather conditions	8 274	7 145	7 455	6 446	24 540	32 769	44 059
excessive moisture	652	454	310	253	150	69	62
forest fires	160	79	105	5 968	957	179	716
of which: coniferous species							
Total forest loss	8 808	7 689	7 746	12 206	24 457	34 588	49 491
of which by cause:							
damaged by insect pests	–	2	24	8	–	4	6
damaged by wild animals	2	–	2	–	–	1	–
forest diseases	641	487	634	962	1 533	2 299	5 082
anthropogenic factors	–	–	1	–	–	9	–
adverse weather conditions	7 607	6 806	6 781	5 974	21 900	32 050	43 656
excessive moisture	405	315	199	201	103	48	31
forest fires	153	78	104	5 061	921	177	716

Continued

	2012	2013	2014	2015	2016	2017	2018
deciduous species							
Total forest loss	1 040	533	848	1 454	2 749	779	474
of which by cause:							
damaged by wild animals	–	–	–	–	5	–	–
forest diseases	119	54	63	23	21	37	40
adverse weather conditions	667	339	674	472	2 640	719	403
excessive moisture	247	139	111	52	47	21	31
forest fires	7	1	1	907	36	2	–

11.14. Structure of area of forest loss by cause

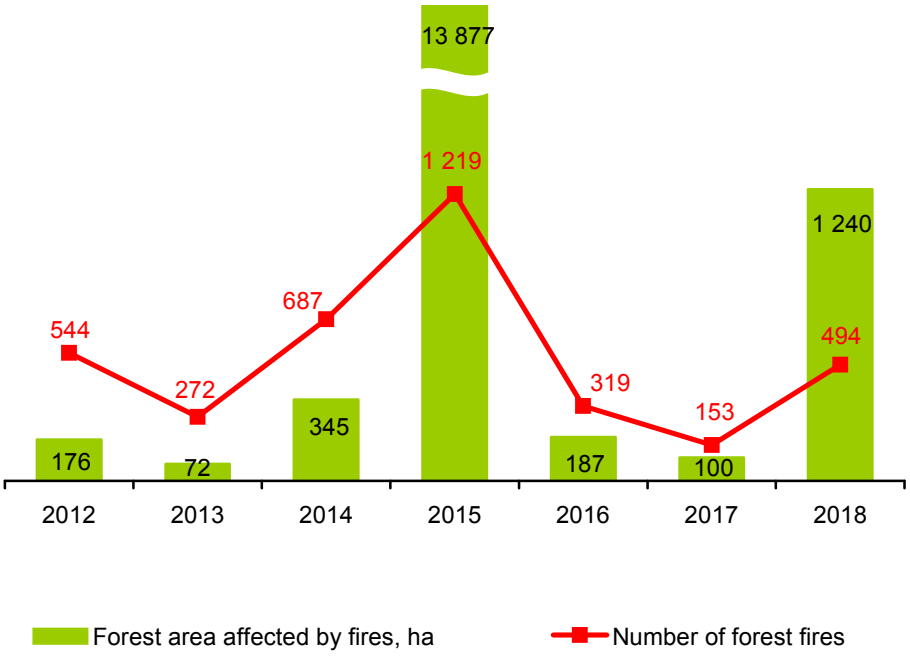
(as % of total)



11.15. Forest fires by region

	2012	2013	2014	2015	2016	2017	2018
Number of forest fires							
Republic of Belarus	544	272	687	1 219	319	153	494
Region:							
Brest	148	35	92	240	57	37	115
Vitebsk	26	32	30	60	29	8	20
Gomel	142	97	285	452	117	64	142
Grodno	61	36	47	63	22	5	52
Minsk	136	48	163	233	58	32	130
Mogilev	31	24	70	171	36	7	35
Forest area affected by fires, hectares							
Republic of Belarus	176	72	345	13 877	187	100	1 240
Region:							
Brest	53	6	30	1 360	52	16	299
Vitebsk	7	8	24	75	46	6	15
Gomel	54	21	157	11 991	51	56	262
Grodno	15	6	15	28	5	3	379
Minsk	29	9	75	75	11	8	237
Mogilev	18	22	45	349	23	11	48
Standing timber damaged, cubic metres							
Republic of Belarus	7 675	1 572	13 735	398 496	4 052	3 201	11 248
Region:							
Brest	2 092	75	2 411	81 409	3 327	2 328	2 723
Vitebsk	248	83	–	–	68	–	536
Gomel	4 653	1 341	6 774	296 686	–	873	5 769
Grodno	574	30	133	3 967	80	–	120
Minsk	80	43	3 500	1 239	338	–	–
Mogilev	28	–	917	15 196	240	–	2 100

11.16. Number of forest fires and forest area affected by fires



11.17. Forest fire control with the aid of aviation by region

(thousand hectares)

	2012	2013	2014	2015	2016	2017	2018
Republic of Belarus	9 375	9 410	9 420	9 461	9 526	9 560	9 570
Region:							
Brest	1 495	1 494	1 500	1 500	1 473	1 408	1 410
Vitebsk	1 854	1 873	1 873	1 883	1 903	1 906	1 911
Gomel	2 217	2 224	2 225	2 239	2 274	2 287	2 285
Grodno	910	922	924	924	927	992	995
Minsk	1 662	1 660	1 660	1 660	1 685	1 699	1 700
Mogilev	1 238	1 237	1 239	1 254	1 265	1 268	1 270

12. GAME HUSBANDRY

Hunting area is the area serving as habitat for game animals and used for hunting purposes and game husbandry management.

Game husbandry expenditure comprises amounts of money spent on the reproduction and protection of wild animals; organisation of hunting of game animals; wages of employees engaged in game husbandry management; renting of service premises; maintenance costs of hunter's houses, hunting centres, service premises and production buildings (heating, lighting, current repairs), access roads, transport; rent for hunting area use; depreciation allowances for restoration of fixed assets; costs of hunting management, maintenance of hunting dogs, decoy and hunting birds, horses; repairs of hunting guns; purchase of low value implements; clerical and other expenditures on game husbandry activities irrespective of the source of financing.

Expenditure on biotechnical measures comprises amounts of money spent on the reproduction and protection of wild animals to enhance the productivity of hunting areas. These measures include purchase, procurement and laying out of fodder for complementary feeding of wild animals; establishing of feeding sites, feeding water, artificial nests, construction of biotechnical facilities (fodder storehouses, saline and pebble stone sites, feedboxes, etc.); implementation of measures to control diseases of wild animals; transport and other expenses related to biotechnical measures.

Earnings from game husbandry management are amounts of money from shooting and capture of wild animals, sales of hunt products (meat, hides, horns, fangs), provision of services to hunters (transport, accommodation, special clothing, etc.), operation of hunting centres and boat stations.

Wild animal population is the number of animals of wild hoofed, fur-bearing and bird species on hunting areas estimated on the basis of inventories carried out in the reporting year.

The section was prepared on the basis of data of the Ministry of Forestry, excluding biological (hunting) reserves and hunting-free zones.

12.1. Area of hunting grounds by region

(end of year; million hectares)

	2012	2013	2014	2015	2016	2017	2018
Total							
Republic of Belarus	16.8	16.7	16.6	16.7	16.5	16.6	16.8
Region:							
Brest	2.7	2.7	2.7	2.5	2.6	2.6	2.6
Vitebsk	3.4	3.5	3.5	3.5	3.4	3.4	3.4
Gomel	3.1	3.0	3.0	3.1	3.0	3.1	3.1
Grodno	1.9	1.9	1.9	1.9	1.9	1.9	1.9
Minsk	3.2	3.2	3.2	3.3	3.2	3.2	3.3
Mogilev	2.5	2.5	2.4	2.4	2.4	2.4	2.4
of which under game husbandry management							
Republic of Belarus	12.9	14.8	15.1	16.1	15.6	15.9	16.6
Region:							
Brest	2.3	2.7	2.7	2.5	2.2	2.2	2.5
Vitebsk	2.6	3.0	3.5	3.5	3.4	3.4	3.4
Gomel	1.7	1.7	1.6	2.8	2.7	2.8	3.0
Grodno	1.2	1.9	1.8	1.8	1.7	1.9	1.9
Minsk	2.8	3.2	3.1	3.1	3.2	3.2	3.3
Mogilev	2.3	2.5	2.4	2.4	2.4	2.4	2.4

12.2. Expenditures on biotechnical activities designed for wildlife reproduction and protection by region

(BYN thousand (2012 – 2015 BYR million); at current prices)

	2012	2013	2014	2015	2016	2017	2018
Republic of Belarus	28 859	30 445	33 776	43 958	3 529	3 551	4 361
Region:							
Brest	4 022	8 107	9 234	14 316	1 015	546	1 011
Vitebsk	12 721	9 610	13 048	13 768	1 060	1 613	1 551
Gomel	8 893	7 542	7 055	10 133	513	467	515
Grodno	948	1 771	1 041	1 600	308	278	342
Minsk	1 645	2 458	2 393	3 541	488	492	772
Mogilev	630	957	1 006	601	144	156	170

12.3. Game husbandry earnings and expenditures

(BYN thousand (2012 – 2015 BYR million; at current prices)

	2012	2013	2014	2015	2016	2017	2018
Earnings from game husbandry maintenance	122 466	168 677	173 536	198 971	22 102	22 518	25 158
Expenditures on game husbandry maintenance	112 880	160 265	185 424	207 830	20 891	23 734	26 190
of which on biotechnical activities designed for wildlife reproduction and protection	28 859	30 445	33 776	43 958	3 529	3 551	4 361
of which:							
distribution (settlement) of game animals	9 233	4 830	7 194	9 802	571	1 018	1 069
purchase of supplementary feeds for wild animals	14 331	21 036	22 823	25 523	1 551	1 256	1 842

12.4. Populations of major game species

(thousand animal units)

	2012	2013	2014	2015	2016	2017	2018
Elk	26.9	27.9	30.1	32.0	33.7	36.3	38.4
Red deer	11.3	12.2	13.6	15.2	16.7	21.5	22.7
Boar	77.8	80.4	8.6	8.0	2.6	2.8	2.6
Roe deer	73.3	74.0	71.5	74.7	82.1	92.8	100.2
Squirrel	126.7	111.1	102.4	118.4	110.3	111.8	106.5
Hare	161.3	154.1	152.8	159.1	157.7	167.5	172.3
Fox	37.0	33.8	29.7	27.5	25.5	25.2	25.3
Muskrat	35.1	27.6	24.4	29.9	27.4	25.8	18.9
American mink	23.7	22.3	22.5	23.0	23.3	24.1	24.5
Beaver	64.4	62.0	63.4	58.3	51.3	51.1	52.9
Wood grouse	8.9	9.1	8.2	8.4	9.0	7.9	8.1
Black grouse	36.1	34.6	39.9	37.3	38.5	40.6	43.2

12.5. Hunting of major game species

(thousand animal units)

	2012	2013	2014	2015	2016	2017	2018
Elk	2.4	2.5	3.3	3.8	4.2	4.6	5.5
Red deer	0.8	0.9	1.1	1.2	1.5	1.7	2.0
Boar	29.7	48.1	30.6	17.2	10.7	9.1	7.7
Roe deer	6.6	6.2	6.6	7.9	9.3	11.1	12.4
Squirrel	4.1	3.5	2.5	2.5	2.2	2.2	2.2
Hare	44.1	40.5	40.1	43.4	49.4	54.1	57.4
Fox	16.9	16.4	15.2	15.4	13.3	17.3	16.7
Muskrat	2.2	2.2	1.8	1.3	0.8	0.6	0.5
American mink	3.0	3.7	4.0	3.3	2.4	2.2	2.1
Beaver	6.0	6.3	6.0	8.9	7.9	8.3	7.3
Wood grouse	0.1	0.1	0.1	0.1	0.4	0.1	0.1
Black grouse	0.2	0.2	0.2	0.2	0.4	0.6	0.3

12.6. Population of mammals included in the Red Book of the Republic of Belarus in their habitats taken under protection by users of hunting reserves

(animal units)

	2014	2015	2016	2017	2018
European bison (main gene pool)	…	…	1 092	1 423	1 451
Badger	1 416	728	695	681	650
Bear	119	20	76	68	25
European mink	351	225	260	101	45
Lynx	771	421	532	489	430

13. WASTE

Waste refers to substances or objects generated in the process of economic and vital activities of humans and having no definite function at the place of generation or having fully or partially lost their consumption properties.

Industrial waste is waste generated in the process of economic activity of businesses and individual entrepreneurs (manufacture of goods, electricity generation, performing of work, provision of services), by- and associated products of extraction and processing of minerals.

Waste recovery is the use of waste for manufacturing products, electricity generation, performing works and provision of services.

Waste disposal comprises activities of temporary waste storage and transportation of waste to storage, burial, detoxification and / or recovery facilities.

Recovered and disposed industrial waste is reflected taking into account partial recovery or disposal of previously accumulated waste.

Hazardous waste is waste containing substances with a hazardous property or properties, in such amounts and state, that this waste itself or when entering in contact with other substances, may pose a direct or potential danger to the environment, human health, or property due to its detrimental effect.

Hazardous waste is classified by hazard class: class 1 (extremely hazardous), class 2 (high-hazard), class 3 (hazardous), class 4 (low-hazard).

Consumption waste is waste generated in the process of human vital activities, not related to economic activities, waste generated in consumer cooperatives and gardening partnerships, as well as generated from sweepings in the common areas.

Municipal waste is consumption waste and industrial waste included in the List of waste referred to municipal waste the disposal of which is organized by local executive and administrative bodies. The List is approved by the Ministry of Housing and Utilities.

According to the List of municipal waste, such waste includes waste from human vital activities, sweepings; waste from research, education, sporting, cultural and religious activities; waste from trade, social service and transport activities; waste from administrative managerial and economic activities; waste of health care facilities.

The section was prepared on the basis of data of the Ministry of Natural Resources and Environmental Protection as relates to industrial waste, and the Ministry of Housing and Utilities as relates to municipal waste and secondary raw materials.

13.1. Generation, recovery and disposal of industrial waste by regions and Minsk city

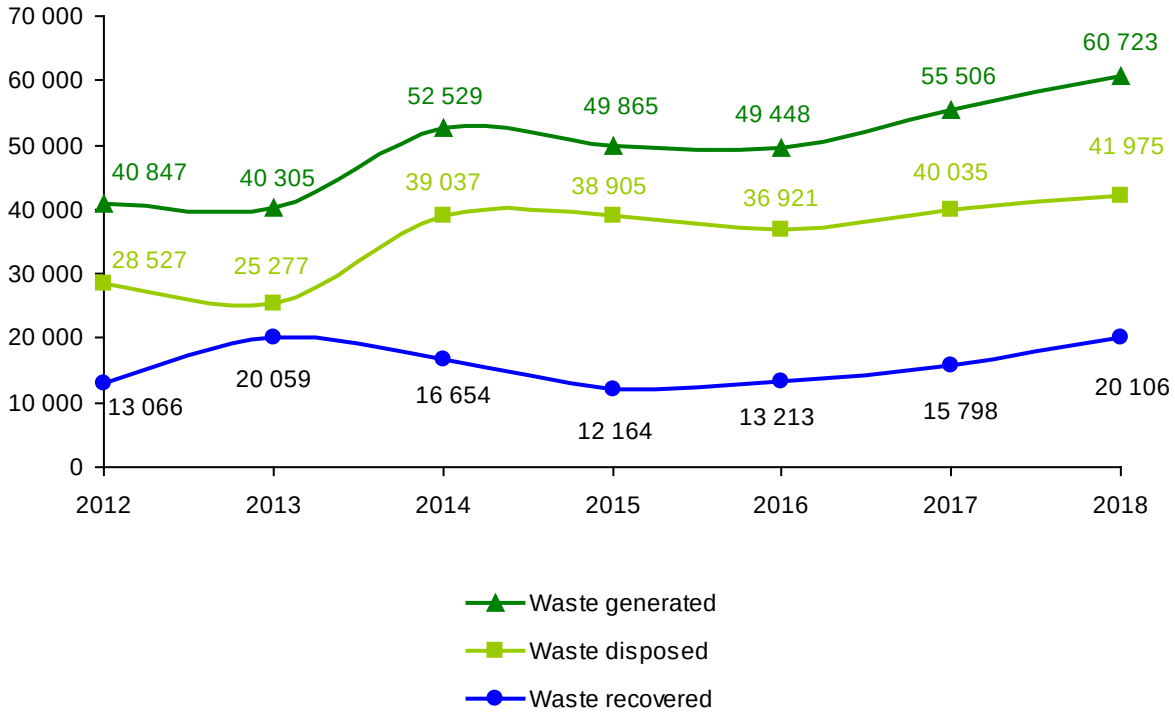
	2012	2013	2014	2015	2016	2017	2018
Waste generated, thousand tonnes							
Republic of Belarus	40 847	40 305	52 529	49 865	49 448	55 506	60 723
Regions and Minsk city:							
Brest	1 053	1 412	1 449	1 244	1 579	1 488	1 974
Vitebsk	862	843	836	552	510	769	770
Gomel	3 120	2 993	3 702	3 097	2 867	3 114	4 639
Grodno	1 781	2 196	1 864	1 786	2 072	2 349	2 528
Minsk city	1 617	2 397	2 072	1 980	2 858	3 139	3 185
Minsk	29 665	27 355	38 210	36 601	36 565	40 714	43 316
Mogilev	2 749	3 109	4 396	4 605	2 996	3 933	4 313
Waste recovered, thousand tonnes							
Republic of Belarus	13 066	20 059	16 654	12 164	13 213	15 798	20 106
Regions and Minsk city:							
Brest	902	1 221	1 244	1 039	1 450	1 343	2 211
Vitebsk	518	553	631	388	397	633	627
Gomel	2 244	7 020	5 032	2 632	1 730	1 748	3 162
Grodno	1 396	1 404	1 131	1 008	1 425	1 816	1 925
Minsk city	671	1 162	996	1 177	2 068	2 473	2 760
Minsk	4 652	5 871	5 772	3 362	4 016	4 304	5 510
Mogilev	2 683	2 828	1 848	2 557	2 128	3 481	3 912
As percentage of waste generated							
Republic of Belarus	32.0	49.8	31.7	24.4	26.7	28.5	33.1
Regions and Minsk city:							
Brest	85.7	86.5	85.9	83.5	91.8	90.3	112.0
Vitebsk	60.1	65.6	75.5	70.3	77.9	82.3	81.4
Gomel	71.9	234.5	135.9	85.0	60.3	56.1	68.2
Grodno	78.4	63.9	60.7	56.4	68.8	77.3	76.2
Minsk city	41.5	48.5	48.1	59.4	72.3	78.8	86.7
Minsk	15.7	21.5	15.1	9.2	11.0	10.6	12.7
Mogilev	97.6	91.0	42.0	55.5	71.0	88.5	90.7

Continued

	2012	2013	2014	2015	2016	2017	2018
Waste disposed, thousand tonnes							
Republic of Belarus	28 527	25 277	39 037	38 905	36 921	40 035	41 975
Regions and Minsk city:							
Brest	165	209	248	241	223	196	130
Vitebsk	348	301	224	173	148	162	152
Gomel	1 305	648	1 431	1 306	1 322	1 435	2 138
Grodno	475	856	824	827	694	619	622
Minsk city	949	1 240	1 091	820	887	705	474
Minsk	25 049	21 526	32 522	33 274	32 667	36 445	37 852
Mogilev	236	497	2 698	2 264	979	472	607

13.2. Dynamics of generation, recovery and disposal of industrial waste

(thousand tonnes)



13.3. Generation, recovery and disposal of industrial waste by waste types

(thousand tonnes)

	2012	2013	2014	2015	2016	2017	2018
Waste generated							
Total	40 847	40 305	52 529	49 865	49 448	55 506	60 723
of which waste of:							
plant and animal origin	4 872	5 228	5 349	4 113	4 145	4 966	5 269
mineral origin	8 521	9 606	11 028	9 369	8 607	9 804	12 888
chemical production and related industries	25 945	22 632	33 374	34 155	34 076	38 140	39 562
of which halite	23 019	20 049	29 801	30 541	30 202	33 853	35 050
medical	11	9	10	14	17	51	26
(precipitation) of water treatment of boiler and heat economy and drinking water, sewage treatment, rainwater and water use in electric power station	590	1 971	1 902	1 538	1 782	1 635	2 165
from human vital activities and similar production waste	906	860	866	677	822	911	814
Waste recovered							
Total	13 066	20 059	16 654	12 164	13 213	15 798	20 106
of which waste of:							
plant and animal origin	4 854	5 270	5 452	4 134	4 138	4 813	5 120
mineral origin	6 902	12 945	9 571	6 685	6 783	8 326	11 220
chemical production and related industries	989	1 195	935	945	1 529	1 762	2 060
of which halite	755	914	651	692	903	1 119	1 232

Continued

	2012	2013	2014	2015	2016	2017	2018
medical	1	4	5	3	4	22	11
(precipitation) of water treatment of boiler and heat economy and drinking water, sewage treatment, rainwater and water use in electric power station	317	635	681	384	687	641	1 465
from human vital activities and similar production waste	3	10	11	13	72	233	229
Waste disposed							
Total	28 527	25 277	39 037	38 905	36 921	40 035	41 975
of which waste of:							
plant and animal origin	450	418	326	381	293	254	329
mineral origin	1 906	1 142	4 063	3 420	2 152	1 673	2 486
chemical production and related industries	24 971	21 464	32 461	33 241	32 570	36 397	37 531
of which halite	22 264	19 136	29 151	29 849	29 299	32 734	33 818
medical	10	5	5	11	13	29	15
(precipitation) of water treatment of boiler and heat economy and drinking water, sewage treatment, rainwater and water use in electric power station	288	1 396	1 324	1 186	1 140	1 003	1 024
from human vital activities and similar production waste	903	852	858	666	753	679	589

13.4. Generation of industrial waste per inhabitant by regions and Minsk city

(kilogrammes)

	2012	2013	2014	2015	2016	2017	2018
Republic of Belarus	4 316	4 258	5 544	5 255	5 204	5 844	6 403
Regions and Minsk city:							
Brest	757	1 016	1 043	896	1 139	1 074	1 428
Vitebsk	712	700	696	461	428	649	655
Gomel	2 184	2 098	2 598	2 176	2 017	2 196	3 283
Grodno	1 680	2 078	1 769	1 699	1 976	2 246	2 427
Minsk city	854	1 254	1 074	1 016	1 453	1 586	1 602
Minsk	21 149	19 508	27 190	25 910	25 748	28 576	30 343
Mogilev	2 549	2 893	4 102	4 307	2 811	3 705	4 085

13.5. Recovery of industrial waste per inhabitant by regions and Minsk city

(kilogrammes)

	2012	2013	2014	2015	2016	2017	2018
Republic of Belarus	1 381	2 119	1 758	1 282	1 391	1 663	2 120
Regions and Minsk city:							
Brest	648	879	896	749	1 046	969	1 599
Vitebsk	428	459	526	325	334	535	533
Gomel	1 571	4 921	3 532	1 849	1 217	1 232	2 238
Grodno	1 317	1 329	1 073	959	1 359	1 737	1 849
Minsk city	354	608	516	604	1 051	1 250	1 389
Minsk	3 317	4 187	4 107	2 380	2 828	3 021	3 860
Mogilev	2 488	2 632	1 724	2 392	1 996	3 279	3 705

13.6. Generation of industrial waste by regions, cities and districts

(thousand tonnes)

	2012	2013	2014	2015	2016	2017	2018
Republic of Belarus	40 847.1	40 305.0	52 529.3	49 865.3	49 448.2	55 506.0	60 723.4
Brest region	1 053.0	1 411.9	1 449.1	1 244.0	1 579.4	1 487.7	1 973.7
Brest city of	265.0	764.9	762.7	497.5	889.9	688.3	1 220.1
District:							
Baranovichy	47.4	52.1	72.3	77.4	109.7	78.2	124.1
Bereza	91.3	96.8	87.4	84.2	108.9	52.3	71.1
Brest	2.2	4.1	1.7	54.6	7.2	52.3	52.2
Gantsevichy	7.2	38.2	35.0	77.0	13.5	21.1	20.5
Drogichin	11.9	13.2	14.4	17.1	16.3	12.4	15.1
Zhabinka	126.6	77.2	79.0	93.2	96.7	39.7	5.3
Ivanovo	72.6	69.1	90.1	25.9	20.5	23.9	87.9
Ivatsevichy	160.3	51.4	84.0	45.5	61.1	258.6	198.4
Kamenets	29.4	2.4	10.0	5.1	3.3	3.8	24.9
Kobrin	0.7	15.0	13.6	11.7	11.7	17.1	17.2
Luninets	33.4	45.3	43.9	14.4	12.8	12.3	15.4
Lyakhovichy	7.3	32.2	5.5	7.6	8.5	15.6	11.5
Malorita	4.3	4.5	7.2	6.5	7.7	8.0	6.6
Pinsk	171.3	129.0	91.7	209.4	198.4	183.9	78.6
Pruzhany	15.2	10.7	14.4	14.4	11.2	12.1	15.0
Stolin	8.1	6.1	38.6	2.3	2.2	8.3	9.9

Continued

	2012	2013	2014	2015	2016	2017	2018
Vitebsk region	862.3	843.0	835.8	551.6	509.9	769.0	769.8
Vitebsk city of	218.1	235.8	201.5	115.4	101.5	109.9	91.8
District:							
Beshenkovichy	1.2	1.2	0.9	0.5	0.4	0.4	1.3
Braslav	9.4	9.4	12.2	8.0	12.5	22.7	27.3
Verkhnedvinsk	7.4	7.4	13.8	14.2	11.1	16.2	16.0
Vitebsk	10.7	5.3	0.2	8.7	6.8	25.6	74.2
Glubokoye	11.8	16.6	13.6	11.9	11.7	21.2	11.4
Gorodok	2.4	2.4	4.1	1.8	7.2	9.2	11.4
Dokshitsy	3.2	3.2	1.6	1.6	1.8	5.0	1.6
Dubrovno	2.0	2.0	1.3	2.2	2.8	2.7	2.0
Lepel	6.8	6.7	9.6	16.0	12.1	16.3	23.4
Liozno	5.3	5.3	2.8	4.3	18.6	19.7	24.4
Miory	7.3	7.3	4.9	4.2	4.4	4.4	4.3
Orsha	34.9	35.2	79.6	67.1	46.6	121.8	76.3
Polotsk	104.9	104.5	93.8	70.5	63.2	98.0	125.4
Postavy	137.2	137.2	218.3	43.2	34.3	60.8	64.9
Rossony	4.6	4.6	3.8	3.6	3.8	1.9	4.8
Senno	162.2	162.2	80.3	58.0	71.5	83.6	83.2
Tolochin	16.7	16.7	10.9	51.6	28.4	44.5	26.5
Ushachy	4.8	5.7	5.2	6.2	6.5	6.5	5.3
Chashniki	108.9	68.9	70.8	58.8	57.8	94.4	86.3
Sharkovshchina	1.3	1.5	2.5	1.7	4.3	1.8	4.7
Shumilino	3.8	3.7	4.2	2.4	2.6	2.5	3.2

Continued

	2012	2013	2014	2015	2016	2017	2018
Gomel region	3 120.0	2 993.5	3 702.1	3 097.4	2 867.1	3 114.3	4 638.5
Gomel city of	1 128.4	1 011.8	983.1	1 016.2	1 047.7	1 115.2	1 209.3
District:							
Bragin	0.1	1.5	0.0	0.2	0.1	0.1	0.6
Buda-Koshelyovo	12.3	15.6	11.0	9.1	12.5	14.1	23.3
Vetka	8.7	8.1	3.0	4.7	4.4	3.2	1.8
Gomel	41.7	89.9	80.5	12.5	47.2	181.9	180.3
Dobrush	135.2	95.9	81.1	53.0	34.7	22.2	11.4
Yelsk	8.6	0.6	2.6	4.5	3.8	3.3	3.4
Zhitkovichy	23.8	22.2	12.3	29.4	25.8	27.6	13.2
Zhlobin	1 157.6	968.3	1 907.6	1 385.1	1 221.5	1 184.1	2 570.6
Kalinkovichy	12.9	18.6	14.7	21.6	23.2	24.7	19.3
Korma	5.6	2.9	1.4	4.0	6.0	4.8	6.8
Lelchitsy	3.9	9.4	3.6	10.6	7.3	17.5	9.2
Loyev	1.7	1.5	1.8	1.5	2.1	1.2	1.5
Mozyr	177.3	236.5	124.4	87.7	121.9	113.8	137.5
Narovlya	2.1	4.1	3.1	2.5	3.0	0.9	2.4
Oktyabrsky	6.4	5.6	5.7	12.1	5.0	4.6	8.5
Petrikov	79.9	68.2	69.3	37.8	82.1	119.8	79.1
Rechitsa	84.7	247.5	222.3	260.1	107.9	118.5	186.9
Rogachev	45.9	7.3	7.8	14.4	15.3	20.7	18.8
Svetlogorsk	170.1	151.8	140.5	108.4	67.5	114.3	131.0
Khoyniki	12.3	18.1	11.5	12.8	17.8	13.9	11.0
Chechersk	4.9	8.1	14.8	9.3	10.5	8.0	12.7

Continued

	2012	2013	2014	2015	2016	2017	2018
Grodno region	1 780.9	2 196.1	1 863.7	1 785.8	2 072.4	2 348.5	2 528.1
Grodno city of	627.0	751.5	823.5	821.3	1 040.3	985.9	904.7
District:							
Berestovitsa	5.0	2.4	3.2	2.8	17.0	15.9	20.0
Volkovysk	335.1	274.2	330.8	275.8	224.6	238.2	284.5
Voronovo	2.7	7.0	3.3	3.3	5.0	3.3	4.2
Grodno	465.4	585.2	172.0	100.4	100.4	160.6	318.0
Dyatlovo	7.7	4.2	4.2	6.8	3.3	9.4	8.5
Zelva	7.9	2.8	3.0	1.7	2.2	1.8	1.9
Ivye	11.5	21.5	7.5	2.6	5.6	7.2	10.4
Korelichy	4.9	5.0	5.2	6.9	6.5	5.2	13.2
Lida	136.9	97.0	81.5	72.3	84.5	116.3	129.4
Mosty	10.6	3.8	5.5	6.2	5.0	85.7	21.1
Novogrudok	6.4	8.9	8.0	13.2	4.5	11.0	19.5
Ostrovets	11.0	10.0	9.7	6.6	12.6	18.4	21.0
Oshmyany	10.5	8.7	26.0	21.4	39.6	35.7	26.8
Svisloch	3.9	8.0	7.4	4.6	5.3	4.7	4.5
Slonim	100.3	202.7	200.3	184.5	198.7	214.7	235.6
Smorgon	4.1	182.2	152.1	247.3	310.2	413.8	487.2
Shchuchin	30.0	21.3	20.8	8.2	7.5	20.8	17.4

Continued

	2012	2013	2014	2015	2016	2017	2018
Minsk city	1 616.6	2 397.0	2 072.3	1 980.4	2 857.9	3 138.9	3 184.7
Minsk region	29 665.1	27 355.0	38 210.1	36 600.9	36 565.3	40 714.1	43 316.0
District:							
Berezino	117.5	52.9	33.5	42.6	31.9	89.4	198.5
Borisov	114.6	201.4	230.6	212.8	174.3	214.4	241.7
Vileyka	70.7	67.9	39.7	42.9	28.7	24.5	25.7
Volozhin	19.4	5.7	8.8	8.2	6.3	7.9	21.7
Dzerzhinsk	12.5	16.8	14.4	11.4	12.5	19.8	101.5
Kletsk	14.1	15.4	19.7	13.9	16.5	10.2	25.8
Kopyl	60.2	40.9	48.1	15.8	12.0	20.7	5.3
Krupki	25.0	44.3	54.1	55.0	60.8	73.7	49.0
Logoysk	1 222.9	1 615.8	1 334.2	420.0	1 046.2	1 019.9	1 380.9
Lyuban	39.2	31.5	73.1	41.2	73.1	110.8	9 681.1
Minsk	341.7	791.3	707.9	171.1	126.1	118.2	684.6
Molodechno	240.3	194.3	221.5	167.3	171.0	274.1	211.2
Myadel	13.4	29.2	1 164.2	5.3	34.0	44.9	41.7
Nesvizh	773.1	821.8	649.9	865.8	649.0	731.7	732.4
Pukhovichy	501.3	533.6	254.5	381.7	334.7	77.4	298.5
Slutsk	249.0	430.4	190.5	196.7	186.9	221.3	358.1
Smolevichy	47.0	43.1	50.4	50.8	63.5	81.8	33.6
Soligorsk	25 613.3	22 260.1	32 970.9	33 804.7	33 439.4	37 428.6	29 059.2
Staryie Dorogi	36.3	15.5	19.0	14.1	16.8	22.8	30.1
Stolbtsy	106.5	112.2	89.3	51.5	56.4	88.9	98.0
Uzda	31.1	17.0	21.8	15.7	14.9	21.0	24.2
Cherven	16.8	13.9	13.7	12.3	10.4	12.0	13.2

Continued

	2012	2013	2014	2015	2016	2017	2018
Mogilev region	2 749.3	3 108.5	4 396.5	4 605.3	2 996.2	3 933.5	4 312.7
Mogilev city of	153.3	316.7	327.2	398.8	400.5	1 058.9	688.8
District:							
Belynichy	6.7	9.7	10.0	8.1	7.3	9.6	12.0
Bobruysk	291.3	551.6	416.8	401.9	455.5	516.6	574.2
Bykhov	8.1	5.5	8.5	12.7	8.4	4.5	7.7
Glusk	11.2	11.7	21.1	18.8	19.9	21.1	1.6
Gorki	19.4	15.4	29.5	1.3	12.9	15.0	11.6
Dribin	1.2	1.4	0.6	1.0	0.9	5.6	0.3
Kirovsk	3.5	5.9	6.0	6.3	6.7	4.5	3.6
Klimovichy	34.2	33.8	15.2	9.0	6.8	8.7	8.3
Klichev	4.2	7.4	5.0	1.8	2.8	3.0	2.3
Kostyukovichy	2 045.3	1 968.7	3 371.7	3 612.3	1 913.5	2 050.4	2 553.4
Krasnopolye	9.7	0.1	0.0	0.0	0.2	0.0	3.8
Krichev	2.7	3.0	2.1	2.9	2.1	3.7	14.2
Krugloye	7.8	4.7	9.9	10.3	14.3	15.7	15.3
Mogilev	1.8	8.6	0.8	1.9	33.1	59.8	213.5
Mstislavl	3.1	3.5	4.9	2.9	3.4	4.8	4.4
Osipovichy	56.8	59.3	57.7	53.2	54.1	78.2	106.0
Slavgorod	1.7	1.9	1.7	1.3	0.5	1.3	1.7
Khotimsk	3.0	9.2	42.6	2.5	0.3	2.0	2.1
Chausy	5.5	5.3	1.2	7.1	6.6	9.3	12.2
Cherikov	11.1	12.7	3.9	3.3	1.7	0.7	1.5
Shklov	69.0	72.5	60.0	48.2	44.6	60.1	74.2

13.7. Generation of industrial waste by economic activity

(thousand tonnes)

	2016	2017	2018
Republic of Belarus	49 448.2	55 506.0	60 723.4
of which:			
Agriculture, forestry and fishing	563.9	621.0	698.9
Mining	1 253.4	1 011.9	1 207.1
Manufacturing	42 900.1	47 855.3	52 025.0
of which:			
Manufacture of food products, beverages and tobacco products	1 858.5	2 055.2	2 548.6
Manufacture of textile articles, wearing apparel, articles of leather and fur	111.9	126.6	139.2
Manufacture of products of wood and paper; printing and reproduction of recorded media	756.7	1 244.1	1 301.8
Manufacture of coke and refined petroleum products	46.1	75.8	82.9
Manufacture of chemicals and chemical products	34 595.2	39 128.8	42 071.6
Manufacture of basic pharmaceuticals and medicinal products	6.6	7.7	8.4
Manufacture of rubber and plastics products, of other non-metallic mineral products	3 026.3	3 397.7	3 717.3
Manufacture of basic metals; manufacture of fabricated metal products, except machinery and equipment	771.6	762.5	934.3
Manufacture of computer, electronic and optical products	5.1	5.7	6.3
Manufacture of electrical equipment	12.4	13.1	14.3
Manufacture of machinery and equipment n.e.c.	300.7	298.3	331.1
Manufacture of transport vehicles and equipment	19.8	135.0	151.5
Other manufacturing; repair and installation of machinery and equipment	1 389.2	604.8	717.7
Electricity, gas, steam, hot water and air conditioning supply	276.5	447.5	705.9
Water supply; waste management and remediation activities	2 141.5	2 688.6	3 041.6
Construction	1 172.3	1 446.8	1 682.4
Wholesale and retail trade; repair of motor vehicles and motorcycles	485.2	498.6	542.6
Transportation and storage, postal and courier activities	135.1	112.7	123.3
Accommodation and food service activities	8.3	63.1	69.0
Information and communication	5.2	8.1	8.8
Financial and insurance activities	7.5	3.6	4.0
Real estate activities	168.6	23.7	25.9
Professional, scientific and technical activities	14.6	23.2	25.4
Administrative and support service activities	1.8	189.6	207.5
Public administration	103.0	36.7	40.1
Education	24.7	104.3	114.1
Human health and social work activities	68.2	138.9	149.9
Arts, sports, entertainment and recreation	116.5	43.9	48.0
Other service activity	1.9	1.7	1.9

13.8. Recovery of industrial waste by regions, cities and districts

(thousand tonnes)

	2012	2013	2014	2015	2016	2017	2018
Republic of Belarus	13 066.4	20 058.7	16 653.9	12 163.8	13 213.0	15 798.3	20 106.0
Brest region	901.9	1 221.3	1 244.2	1 039.0	1 449.8	1 343.0	2 210.8
Brest city of	228.0	692.5	705.0	466.0	909.7	648.0	1 182.6
District:							
Baranovichy	27.5	27.0	50.7	69.7	77.3	53.2	122.1
Bereza	54.1	57.8	40.6	27.5	53.2	48.8	69.5
Brest	1.6	3.6	1.6	27.7	6.1	38.8	46.8
Gantsevichy	5.9	37.4	34.7	75.9	12.9	20.4	19.8
Drogichin	10.2	11.2	12.2	14.9	15.2	11.3	13.5
Zhabinka	113.1	75.0	82.5	86.9	101.4	4.3	2.7
Ivanovo	69.2	65.3	87.9	21.6	17.5	23.1	86.6
Ivatsevichy	157.0	46.0	79.9	42.7	58.4	288.0	198.5
Kamenets	28.9	0.2	8.3	1.5	1.7	2.3	23.3
Kobrin	0.5	8.4	7.3	7.7	11.1	13.4	15.6
Luninets	28.5	36.9	38.8	9.9	10.6	7.5	11.2
Lyakhovichy	5.0	27.0	5.4	3.4	4.2	6.1	4.6
Malorita	1.8	2.0	4.4	4.2	6.4	7.2	6.3
Pinsk	158.9	119.3	72.3	169.9	156.2	161.2	394.5
Pruzhany	6.6	7.3	8.3	8.9	7.5	8.1	8.3
Stolin	5.7	4.6	4.4	1.0	0.6	1.3	4.9

Continued

	2012	2013	2014	2015	2016	2017	2018
Vitebsk region	518.5	552.9	631.1	388.3	397.2	633.1	626.5
Vitebsk city of	119.0	150.2	129.4	76.1	75.8	66.8	65.3
District:							
Beshenkovichy	0.0	0.0	0.0	0.0	0.0	0.0	0.4
Braslav	7.1	7.1	10.0	6.1	9.9	21.3	24.5
Verkhnedvinsk	3.8	3.8	12.3	13.2	9.8	15.2	14.0
Vitebsk	6.5	3.4	0.0	4.5	2.2	17.8	51.2
Glubokoye	3.3	5.7	6.9	5.8	7.0	14.4	7.5
Gorodok	0.3	0.3	2.1	0.6	5.7	8.1	10.8
Dokshitsy	0.1	0.1	0.6	0.1	0.2	3.4	0.4
Dubrovno	0.5	0.5	0.3	1.0	0.5	0.5	0.4
Lepel	3.3	3.3	6.9	11.3	12.1	14.7	20.1
Liozno	3.7	3.7	1.7	2.8	17.1	18.2	24.9
Miory	2.5	2.5	2.2	2.0	2.3	2.4	2.3
Orsha	16.8	16.9	58.5	38.9	32.4	113.3	56.4
Polotsk	37.5	37.4	37.3	28.7	26.9	57.0	87.0
Postavy	130.8	130.8	215.9	37.1	28.9	56.1	59.2
Rossony	3.0	3.0	2.3	2.1	3.0	1.0	4.1
Senno	158.6	158.6	79.7	61.5	68.6	87.7	79.1
Tolochin	15.9	15.9	7.4	43.5	32.2	42.6	24.6
Ushachy	3.8	4.0	4.6	5.2	5.3	5.3	4.5
Chashniki	2.0	3.1	51.4	47.2	53.8	86.5	85.0
Sharkovshchina	0.0	0.1	0.2	0.1	2.7	0.3	4.1
Shumilino	2.5	2.5	1.7	0.5	0.8	0.7	1.1

Continued

	2012	2013	2014	2015	2016	2017	2018
Gomel region	2 244.4	7 019.6	5 032.0	2 632.3	1 729.7	1 747.6	3 161.6
Gomel city of	243.9	4 746.1	268.7	317.9	354.9	338.9	405.7
District:							
Bragin	0.0	0.2	0.0	0.1	0.0	0.0	0.5
Buda-Koshelyovo	9.4	9.1	9.1	6.6	7.8	11.8	31.3
Vetka	4.4	5.0	2.6	4.0	2.9	2.5	1.2
Gomel	29.3	92.5	74.8	6.0	38.8	152.0	168.7
Dobrush	42.5	25.3	23.1	23.9	26.9	18.4	7.1
Yelsk	6.8	0.3	2.9	3.8	3.9	2.8	3.4
Zhitkovichy	14.7	14.3	6.4	18.8	21.3	19.8	9.7
Zhlobin	1 171.0	1 209.9	3 941.2	1 514.9	775.0	714.3	1 987.2
Kalinkovichy	7.3	12.4	9.5	15.9	18.1	20.2	14.4
Korma	0.2	0.5	0.1	2.4	4.2	3.8	6.5
Lelchitsy	2.0	7.9	1.8	7.9	6.1	15.6	7.8
Loyev	0.9	0.7	1.0	0.6	1.1	0.7	0.9
Mozyr	150.7	200.0	89.9	104.6	141.9	101.0	133.3
Narovlya	1.2	1.3	0.2	1.9	2.7	0.6	1.5
Oktyabrsky	4.9	4.0	3.5	10.0	4.3	4.3	7.4
Petrikov	79.0	64.7	60.6	42.0	76.8	115.8	77.2
Rechitsa	270.8	477.8	384.8	427.9	162.7	100.9	163.3
Rogachev	42.8	3.9	5.1	8.2	5.3	19.6	15.2
Svetlogorsk	155.1	130.6	125.4	101.2	52.4	81.7	98.9
Khoyniki	6.8	6.7	9.8	5.7	13.7	15.9	9.1
Chechersk	3.5	6.6	11.7	8.2	8.9	7.1	11.4

Continued

	2012	2013	2014	2015	2016	2017	2018
Grodno region	1 396.3	1 404.0	1 130.9	1 008.2	1 425.2	1 816.4	1 925.4
Grodno city of	409.3	169.0	262.4	280.9	595.0	623.5	557.1
District:							
Berestovitsa	3.0	0.7	1.1	0.8	14.6	14.5	17.7
Volkovysk	276.8	267.1	305.6	268.2	212.1	230.7	236.7
Voronovo	0.2	3.9	1.3	2.0	2.1	2.4	3.1
Grodno	435.7	576.5	233.6	48.7	93.2	172.7	303.0
Dyatlovo	3.9	0.3	0.3	2.5	0.6	5.5	4.8
Zelva	0.8	0.7	0.8	0.8	0.6	0.9	0.9
Ivye	9.5	18.0	6.5	1.4	4.5	4.4	6.7
Korelichy	3.1	2.9	3.2	2.7	4.4	8.0	12.6
Lida	109.2	67.4	52.9	51.0	59.6	97.2	105.5
Mosty	6.4	0.4	0.7	1.2	2.3	87.4	18.7
Novogrudok	2.3	3.2	2.2	4.6	2.0	5.2	13.1
Ostrovets	9.7	8.1	7.9	3.4	8.0	9.6	11.1
Oshmyany	2.6	2.7	9.0	20.4	35.6	33.1	23.2
Svisloch	2.3	4.7	5.5	3.2	3.0	2.8	2.9
Slonim	90.5	95.8	86.7	79.7	80.9	99.3	126.3
Smorgon	12.5	171.3	139.3	234.0	303.6	403.5	470.1
Shchuchin	22.7	11.4	12.2	2.9	3.3	15.8	12.1

Continued

	2012	2013	2014	2015	2016	2017	2018
Minsk city	670.6	1 162.1	995.8	1 177.0	2 067.5	2 473.3	2 760.1
Minsk region	4 652.2	5 871.2	5 772.1	3 361.9	4 015.5	4 303.9	5 509.8
District:							
Berezino	114.7	50.4	33.0	40.8	30.9	87.9	197.7
Borisov	78.6	174.8	198.9	184.9	150.2	196.1	217.6
Vileyka	63.7	60.5	33.5	37.2	24.1	20.0	20.9
Volozhin	17.2	3.7	7.3	5.9	3.4	3.9	13.5
Dzerzhinsk	7.7	11.0	7.2	5.0	4.5	14.1	96.4
Kletsk	9.7	12.3	15.7	10.0	13.8	7.7	22.3
Kopyl	56.6	37.4	43.3	11.9	8.9	7.5	4.1
Krupki	22.2	40.3	45.8	50.4	60.6	73.9	50.2
Logoysk	1 219.8	1 613.2	1 330.8	416.8	1 043.1	1 018.3	1 378.1
Lyuban	34.1	27.1	67.8	37.8	71.4	113.9	1 311.1
Minsk	288.7	745.0	659.5	117.1	84.3	81.5	345.6
Molodechno	203.7	185.0	210.5	158.0	161.0	251.5	201.0
Myadel	8.8	23.3	1 151.9	1.5	30.2	42.4	38.5
Nesvizh	783.4	825.2	652.1	871.6	630.0	706.1	723.4
Pukhovichy	477.7	505.0	240.2	363.9	320.6	61.7	286.0
Slutsk	233.5	421.1	166.0	176.4	167.8	197.8	317.9
Smolevichy	28.3	23.0	29.4	26.7	40.1	52.8	28.2
Soligorsk	828.8	967.8	718.4	763.0	1 080.3	1 236.6	103.4
Staryie Dorogi	34.3	13.2	15.1	12.7	14.2	20.3	26.9
Stolbtsy	101.9	107.8	86.2	47.6	55.7	85.2	95.2
Uzda	29.4	15.1	19.5	13.6	12.3	15.7	20.3
Cherven	11.2	9.3	40.1	9.2	8.2	8.9	11.6

Continued

	2012	2013	2014	2015	2016	2017	2018
Mogilev region	2 682.5	2 827.7	1 847.7	2 557.1	2 128.1	3 481.0	3 911.8
Mogilev city of	113.3	223.2	224.3	411.4	296.8	981.7	564.9
District:							
Belynichy	4.4	7.0	6.6	5.8	5.5	7.7	10.9
Bobruysk	368.4	357.8	291.8	235.7	305.8	241.8	322.6
Bykhov	2.7	2.4	3.5	10.6	4.8	2.0	11.4
Glusk	10.8	9.9	14.3	9.2	17.6	20.2	1.3
Gorki	15.1	10.4	20.2	11.8	7.8	11.3	8.4
Dribin	0.2	0.4	0.2	0.3	0.5	0.3	0.1
Kirovsk	1.5	4.0	5.3	1.3	1.5	2.9	2.0
Klimovichy	32.3	25.1	13.6	6.0	7.0	5.8	5.7
Klichev	3.0	6.3	4.3	1.3	2.2	2.6	2.0
Kostyukovichy	1 993.5	2 039.0	1 111.1	1 756.6	1 351.8	2 030.2	2 560.7
Krasnopolye	6.9	0.0	0.0	0.0	0.1	0.0	0.1
Krichev	1.9	1.8	1.3	1.0	1.1	1.5	5.7
Krugloye	3.5	4.7	15.5	9.8	13.2	14.3	14.4
Mogilev	0.9	6.7	0.1	0.4	27.3	41.8	223.3
Mstislavl	2.5	2.9	3.4	2.4	2.4	3.1	3.3
Osipovichy	51.6	53.3	53.6	48.9	50.7	76.1	109.1
Slavgorod	0.5	0.6	0.5	0.1	0.0	0.2	0.7
Khotimsk	2.2	3.4	37.8	2.2	0.1	1.8	2.0
Chausy	4.1	4.2	0.1	6.4	6.2	8.4	10.1
Cherikov	9.1	8.4	2.0	0.7	1.3	0.4	0.4
Shklov	56.0	56.5	38.2	35.6	24.4	27.0	53.0

13.9. Industrial waste by hazard class in 2018

	Genera-tion	Recovery	Disposal	Of which			
				storage facilities	burial sites	onsite storage	neutrali-sation
	Thousand tonnes						
Total	60 723.4	20 106.0	41 974.7	31 137.3	1 105.8	9 587.1	144.5
of which:							
Non-hazardous	10 281.5	9 559.4	944.8	1.6	630.3	310.7	2.2
Class 1 (extremely hazardous)	22.7	18.5	5.3	0.0	0.2	1.2	4.0
Class 2 (high-hazard)	15.0	9.3	5.8	0.3	0.0	0.1	5.3
Class 3 (hazardous)	2 161.7	2 014.1	623.8	430.0	123.7	50.2	19.8
Class 4 (low-hazard)	48 242.5	8 504.7	40 395.1	30 705.4	351.5	9 225.0	113.2
	As % of total						
Total	100	100	100	100	100	100	100
of which:							
Non-hazardous	16.9	47.5	2.3	0.0	57.0	3.2	1.5
Class 1 (extremely hazardous)	0.0	0.1	0.0	0.0	0.0	0.0	2.7
Class 2 (high-hazard)	0.0	0.0	0.0	0.0	0.0	0.0	3.7
Class 3 (hazardous)	3.6	10.0	1.5	1.4	11.2	0.5	13.7
Class 4 (low-hazard)	79.4	42.3	96.2	98.6	31.8	96.2	78.3

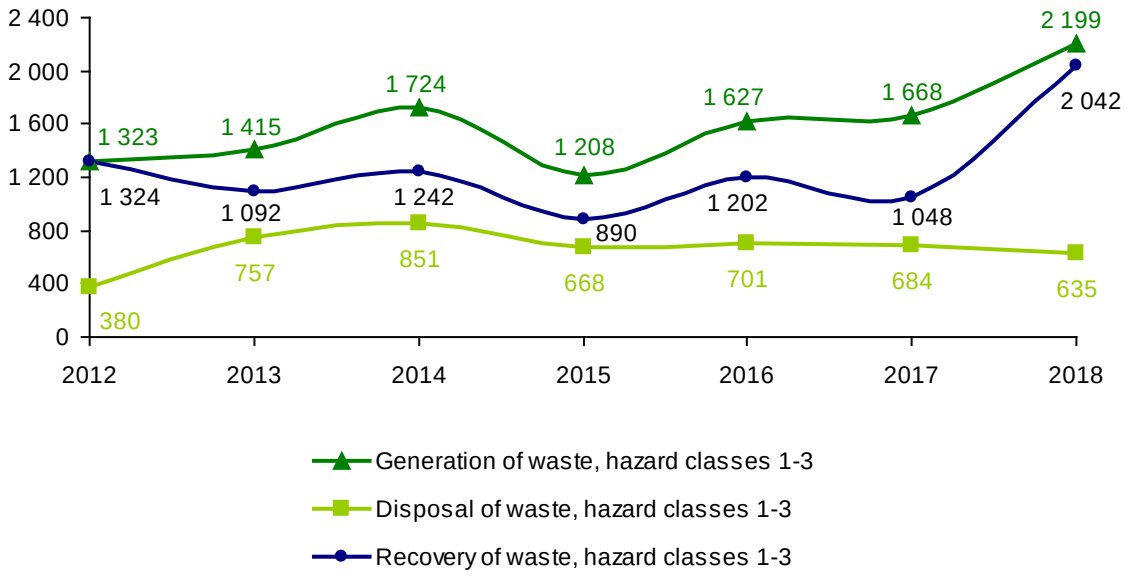
13.10. Generation, recovery and disposal of industrial waste hazard classes 1-3

(thousand tonnes)

	2012	2013	2014	2015	2016	2017	2018
Generation	1 322.8	1 415.4	1 724.0	1 207.8	1 626.6	1 668.1	2 199.4
Recovery	1 324.3	1 091.7	1 242.2	889.8	1 201.6	1 047.9	2 041.9
Disposal – total	379.8	757.0	851.4	668.1	701.0	683.6	634.9
of which:							
storage facilities	89.0	563.0	581.0	496.5	472.5	469.9	430.4
burial sites	123.7	124.7	153.6	99.3	116.0	110.7	123.9
onsite storage	138.0	48.0	57.5	47.8	78.8	53.2	51.5
neutralisation	29.1	21.3	59.3	24.5	33.8	49.8	29.1

13.11. Dynamics of generation, recovery and disposal of industrial waste hazard classes 1-3

(thousand tonnes)



13.12. Generation, recovery and disposal of industrial waste hazard classes 1-3 by regions and Minsk city in 2018

(thousand tonnes)

	Genera-tion	Reco-very	Disposal	Of which			
				storage facilities	burial sites	onsite storage	neutrali-sation
Total							
Republic of Belarus	60 723.4	20 106.0	41 974.7	31 137.3	1 105.8	9 587.2	144.5
Regions and Minsk city:							
Brest	1 973.7	2 210.8	130.4	6.3	65.8	57.0	1.2
Vitebsk	769.8	626.5	151.8	17.1	102.3	28.5	3.9
Gomel	4 638.5	3 161.6	2 138.4	1 280.7	133.4	723.4	0.9
Grodno	2 528.1	1 925.4	622.2	294.5	153.4	55.3	119.0
Minsk city	3 184.7	2 760.1	473.8	0.9	406.5	55.5	10.8
Minsk	43 316.0	5 509.8	37 851.5	29 197.6	126.3	8 521.3	6.3
Mogilev	4 312.7	3 911.8	606.6	340.1	118.0	146.1	2.3
of which:							
hazard classes 1-3							
Republic of Belarus	2 199.4	2 041.9	634.9	430.4	123.9	51.5	29.1
Regions and Minsk city:							
Brest	611.5	905.2	25.2	6.3	14.1	3.7	1.2
Vitebsk	43.8	20.1	24.7	8.3	10.7	2.6	3.1
Gomel	161.2	153.4	33.5	4.1	25.8	3.5	0.1
Grodno	393.4	261.1	136.3	80.4	15.5	26.6	13.8
Minsk city	138.6	104.3	37.2	0.9	25.3	4.8	6.2
Minsk	348.3	88.1	268.9	242.0	15.7	7.6	3.6
Mogilev	502.6	509.7	109.1	88.5	16.9	2.7	1.0

13.13. Generation, recovery and landfilling of solid municipal waste by regions and Minsk city

	2012	2013	2014	2015	2016	2017	2018
Waste generated, thousand tonnes							
Republic of Belarus	3 728	3 682	3 723	3 735	3 794	3 801	3 795
Regions and Minsk city:							
Brest	485	468	457	441	448	477	472
Vitebsk	352	387	405	416	414	419	425
Gomel	640	633	605	600	598	613	617
Grodno	382	382	380	381	413	422	446
Minsk city	1 007	951	985	985	1 008	968	935
Minsk	462	475	500	522	525	514	543
Mogilev	401	387	391	390	389	389	358
Waste recovered (collection of secondary raw materials), thousand tonnes							
Republic of Belarus	373	442	540	583	599	654	714
Regions and Minsk city:							
Brest	39	55	68	75	72	77	91
Vitebsk	32	42	48	64	71	69	75
Gomel	77	84	89	90	94	101	111
Grodno	43	46	54	58	55	75	82
Minsk city	112	127	154	158	169	181	190
Minsk	31	34	56	65	65	70	77
Mogilev	40	54	71	74	73	80	88
Waste landfilled, thousand tonnes							
Republic of Belarus	3 355	3 240	3 183	3 152	3 195	3 148	3 081
Regions and Minsk city:							
Brest	446	413	389	366	376	399	380
Vitebsk	320	345	357	352	342	349	350
Gomel	563	549	516	510	504	511	505
Grodno	338	336	326	324	358	347	365
Minsk city	895	824	831	827	839	787	745
Minsk	430	441	444	457	460	444	465
Mogilev	362	334	320	316	316	310	270

13.14. Collection of secondary raw materials by selected materials by regions and Minsk city

(thousand tonnes)

	2012	2013	2014	2015	2016	2017	2018
Total							
Republic of Belarus	372.8	441.8	539.8	582.6	599.5	653.8	714.3
Regions and Minsk city:							
Brest	38.9	55.1	68.2	74.6	72.3	77.1	91.1
Vitebsk	31.6	41.9	47.6	63.7	71.3	69.1	75.0
Gomel	76.5	83.7	89.2	90.2	94.2	101.4	111.3
Grodno	43.1	46.2	54.1	57.5	54.9	74.7	81.8
Minsk city	111.8	127.3	153.9	157.9	168.6	181.3	189.6
Minsk	31.4	34.0	55.9	64.8	65.0	70.4	77.4
Mogilev	39.5	53.6	70.9	73.9	73.1	79.9	88.2
of which:							
paper and cardboard							
Republic of Belarus	262.8	284.4	329.4	323.0	306.5	329.0	355.9
Regions and Minsk city:							
Brest	26.6	34.0	41.1	41.2	35.7	37.3	42.1
Vitebsk	24.3	29.0	31.6	33.1	33.1	31.4	35.2
Gomel	48.9	49.2	51.4	45.7	41.7	41.4	42.8
Grodno	23.4	22.9	28.0	27.8	26.0	34.8	36.8
Minsk city	89.5	98.4	109.0	103.4	105.6	114.7	123.8
Minsk	24.9	22.5	32.2	34.9	31.4	34.1	37.3
Mogilev	25.2	28.4	36.1	36.9	33.0	35.3	37.9
glass							
Republic of Belarus	59.1	83.2	122.9	164.3	168.2	181.3	189.5
Regions and Minsk city:							
Brest	8.2	13.1	17.9	21.3	19.3	20.3	25.5
Vitebsk	3.3	4.8	6.8	19.1	21.7	20.1	20.1
Gomel	13.0	18.1	19.5	25.8	28.7	34.5	38.3
Grodno	12.1	16.1	18.0	20.8	16.0	22.7	25.3
Minsk city	11.7	14.9	28.9	38.3	43.1	41.2	35.5
Minsk	3.9	5.7	13.7	19.4	19.2	19.2	19.6
Mogilev	6.9	10.5	18.1	19.6	20.2	23.3	25.2

Continued

	2012	2013	2014	2015	2016	2017	2018
				polymer			
Republic of Belarus	27.3	37.2	47.9	52.1	67.3	77.8	85.8
Regions and Minsk city:							
Brest	2.7	3.9	4.7	6.2	8.6	10.3	13.0
Vitebsk	2.0	4.0	5.1	5.8	8.7	8.9	9.0
Gomel	9.8	10.9	12.8	13.3	16.8	16.7	17.7
Grodno	2.2	2.9	3.6	4.1	6.5	9.7	10.6
Minsk city	7.0	7.9	9.8	9.8	10.3	12.6	15.2
Minsk	1.0	2.6	5.0	5.0	7.5	9.3	9.4
Mogilev	2.6	5.0	6.9	7.9	8.9	10.3	10.9
				worn tires			
Republic of Belarus	23.6	37.0	39.6	43.2	44.6	46.8	51.9
Regions and Minsk city:							
Brest	1.4	4.1	4.5	5.9	6.6	6.7	7.0
Vitebsk	2.0	4.1	4.1	5.7	6.1	6.3	6.7
Gomel	4.8	5.5	5.5	5.4	5.4	5.9	7.4
Grodno	5.4	4.3	4.5	4.8	5.2	5.7	6.5
Minsk city	3.6	6.1	6.2	6.4	6.5	8.0	7.2
Minsk	1.6	3.2	5.0	5.5	5.1	5.1	6.3
Mogilev	4.8	9.7	9.8	9.5	9.7	9.1	10.8
				waste oil			
Republic of Belarus	…	…	…	…	8.3	12.8	16.8
Regions and Minsk city:							
Brest	…	…	…	…	1.6	1.9	2.5
Vitebsk	…	…	…	…	1.0	1.6	1.9
Gomel	…	…	…	…	1.1	2.0	2.3
Grodno	…	…	…	…	0.9	1.4	1.9
Minsk city	…	…	…	…	1.5	2.9	3.6
Minsk	…	…	…	…	1.4	1.6	2.9
Mogilev	…	…	…	…	0.8	1.3	1.7

Continued

	2012	2013	2014	2015	2016	2017	2018
waste of electrical and electronic equipment							
Republic of Belarus	…	…	…	…	4.5	6.2	14.4
Regions and Minsk city:							
Brest	…	…	…	…	0.5	0.6	1.0
Vitebsk	…	…	…	…	0.8	0.8	2.0
Gomel	…	…	…	…	0.5	1.0	2.8
Grodno	…	…	…	…	0.3	0.4	0.6
Minsk city	…	…	…	…	1.6	1.9	4.3
Minsk	…	…	…	…	0.4	1.1	1.9
Mogilev	…	…	…	…	0.5	0.6	1.7

13.15. Removal of liquid municipal waste from settlements by special purpose motor road vehicles by regions and Minsk city

(thousand cubic metres)

	2012	2013	2014	2015	2016	2017	2018
Republic of Belarus	1 426	1 640	1 422	1 301	1 317	1 320	1 065
Regions and Minsk city:							
Brest	272	236	262	247	231	200	225
Vitebsk	128	191	64	81	106	175	89
Gomel	252	279	260	224	179	166	144
Grodno	244	240	216	200	193	190	174
Minsk city	49	53	47	37	16	8	6
Minsk	440	434	470	403	465	456	364
Mogilev	41	206	103	110	125	125	63

14. SELECTED DATA ON THE CHERNOBYL CATASTROPHE CONSEQUENCES

The catastrophe at the Chernobyl Nuclear Power Plant occurred on 26 April 1986. Radioactive contamination covered an area of more than 125 thsd sq. km, affecting the territory of Belarus, Russia and Ukraine.

The most widely spread radionuclide is caesium-137 (radioactive caesium) with half-life period of 30 years. However, before the radionuclide becomes non-hazardous for human or animal live, 6-10 half-life periods must pass.

Radioactive contamination with caesium-137, with its content in soil over 1 Ku/km^2, affected the territory of Belarus, covering an area of 46 thsd km^2 (22% of the total area), of which 19 thsd km^2 of agricultural land, 20 thsd km^2 of forest stock land.

14.1. Area of agricultural land contaminated with Caesium-137 in use of agricultural organisations by region[1)]

(as of January 1; thousand hectares)

	2013	2014	2015	2016	2017	2018	2019
Republic of Belarus	981.9	970.7	941.3	927.7	903.1	877.2	864.4
Region:							
Brest	62.0	57.7	52.6	52.1	50.7	45.7	41.6
Vitebsk	0.3	0.3	0.3	0.2	0.2	0.2	0.2
Gomel	570.2	567.6	561.7	552.0	533.3	516.7	513.4
Grodno	22.9	22.9	20.8	19.8	18.3	18.3	16.8
Minsk	51.9	51.2	50.0	48.7	46.9	44.7	43.2
Mogilev	274.6	271.0	255.9	254.9	253.7	251.6	249.2

[1)] Data of the Ministry of Agriculture and Food.

14.2. Area of agricultural land contaminated with Caesium-137 in use of agricultural organisations by region as of January 1, 2019[1)]

	Total agricultural land contaminated		Of which by soil contamination density, thsd ha			
	thsd ha	% of total agricultural land	1-5 Ci/km^2	5-15 Ci/km^2	15-40 Ci/km^2	40 Ci/km^2
Republic of Belarus	864.4	11.7	696.4	150.0	17.9	0.1
Region:						
Brest	41.6	3.5	40.7	0.9	–	–
Vitebsk	0.2	0.0	0.2	–	–	–
Gomel	513.4	42.8	392.0	106.7	14.6	0.1
Grodno	16.8	1.6	16.8	–	–	–
Minsk	43.2	2.7	43.0	0.2	–	–
Mogilev	249.2	22.9	203.6	42.2	3.3	–

[1)] Data of the Ministry of Agriculture and Food.

14.3. Area of forest stock of the Ministry of Forestry contaminated with Caesium-137 by region[1)]

(as of January 1; thousand hectares)

	2013	2014	2015	2016	2017	2018	2019
Republic of Belarus	1 504.6	1 457.4	1 424.8	1 395.4	1 375.9	1 356.3	1 315.5
Region:							
Brest	105.4	100.2	94.2	89.7	85.7	83.6	80.3
Vitebsk	0.3	0.1	0.1	0.1	0.1	0.1	0.1
Gomel	884.7	863.5	846.5	831.4	824.8	816.1	798.2
Grodno	40.3	33.8	31.4	30.0	26.0	25.6	18.8
Minsk	41.3	33.9	32.9	31.7	31.4	30.9	29.6
Mogilev	432.6	425.9	419.7	412.5	407.9	400.0	388.5

[1)] Data of the Ministry of Forestry.

14.4. Area of forest stock contaminated with Caesium-137 by region as of January 1, 2019[1)]

	Total area of forest fund contaminated		Of which by soil contamination density, thsd ha			
	thsd ha	% of total forest stock	1-5 Ci/km^2	5-15 Ci/km^2	15-40 Ci/km^2	40 Ci/km^2
Total						
Republic of Belarus	1 591.2	16.6	1 023.0	381.4	159.9	26.9
Region:						
Brest	80.3	5.6	77.9	2.4	–	–
Vitebsk	0.1	0.0	0.1	–	–	–
Gomel	1 070.7	46.7	639.6	287.5	117.1	26.5
Grodno	18.8	1.9	18.7	0.1	–	–
Minsk	32.8	1.9	32.6	0.2	–	–
Mogilev	388.5	30.7	254.1	91.2	42.8	0.4
of which area of forest stock of the Ministry of Forestry						
Republic of Belarus	1 315.5	13.7	920.2	286.4	108.0	0.9
Region:						
Brest	80.3	5.6	77.9	2.4	–	–
Vitebsk	0.1	0.0	0.1	–	–	–
Gomel	798.2	34.8	540.0	192.5	65.2	0.5
Grodno	18.8	1.9	18.7	0.1	–	–
Minsk	29.6	1.7	29.4	0.2	–	–
Mogilev	388.5	30.7	254.1	91.2	42.8	0.4

[1)] Data of the Ministry of Forestry.

14.5. Forest seeding and planting on areas contaminated with Caesium-137 by region

(hectares)

	2012	2013	2014	2015	2016	2017	2018
Republic of Belarus	4 924	4 818	5 767	5 541	6 037	7 359	7 707
Region:							
Brest	149	154	118	188	290	280	851
Gomel	3 397	3 232	3 702	3 403	4 052	5 543	5 091
Grodno	131	96	102	104	38	34	10
Minsk	16	108	83	87	73	70	78
Mogilev	1 231	1 228	1 762	1 759	1 584	1 432	1 677

14.6. Forest seeding and planting on areas contaminated with Caesium-137 by region in 2018

(hectares)

	Forest seeding and planting – total	Of which by soil contamination density		
		1-5 Ci/km^2	5-15 Ci/km^2	15-40 Ci/km^2
		Total		
Republic of Belarus	7 707	5 962	1 224	521
Region:				
Brest	851	844	7	–
Gomel	5 091	3 817	903	371
Grodno	10	10	–	–
Minsk	78	78	–	–
Mogilev	1 677	1 213	314	150
		of which on land excluded from agricultural use		
Republic of Belarus	256	74	–	182
Region:				
Gomel	244	62	–	182
Grodno	2	2	–	–
Mogilev	10	10	–	–

14.7. Fixed capital investment in post-catastrophe remedial actions by regions and Minsk city

(at current prices)

	2012	2013	2014	2015	2016	2017	2018
BYN million (2012 – 2015 – BYR billion)							
Republic of Belarus	619.7	1 029.1	607.3	789.9	72.6	67.4	69.1
Regions and Minsk city:							
Brest	56.2	133.4	73.8	75.2	9.8	9.9	9.3
Vitebsk	5.9	0.8	2.3	3.0	1.5	–	–
Gomel	443.1	770.8	435.8	535.1	33.1	36.7	46.7
Grodno	4.3	14.9	3.3	–	–	–	–
Minsk city	1.2	–	–	2.0	0.3	0.0	–
Minsk	5.1	8.7	3.9	2.7	–	–	–
Mogilev	103.9	100.6	88.1	171.9	27.9	20.7	13.0
As % of total investment							
Republic of Belarus	0.4	0.5	0.3	0.4	0.4	0.3	0.3
Regions and Minsk city:							
Brest	0.3	0.6	0.3	0.4	0.5	0.4	0.3
Vitebsk	0.04	0.0	0.01	0.02	0.09	–	–
Gomel	2.1	2.3	1.1	1.3	1.3	1.2	1.4
Grodno	0.02	0.1	0.01	–	–	–	–
Minsk city	0.0	–	–	0.0	0.0	0.0	–
Minsk	0.02	0.02	0.01	0.01	–	–	–
Mogilev	0.6	0.6	0.5	0.9	2.0	1.7	0.8

ENVIRONMENTAL PROTECTION
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