NATIONAL STATISTICAL COMMITTEE
OF THE REPUBLIC OF BELARUS

ENVIRONMENTAL PROTECTION IN THE REPUBLIC OF BELARUS

Statistical book

MINSK
2020

The statistical book presents data on the state of the natural environment and environmental impact of economic activities for the years 2013 – 2019.

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.

ISBN 978-985-7241-08-8

E-mail: belstat@belstat.gov.by
http://www.belstat.gov.by

Foreword

The data book provides information for the years 2013 – 2019 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 (the Ministry of Natural Resources and Environmental Protection, the Ministry of Forestry, the Ministry of Housing and Utilities, the Ministry of Health, the Ministry of Agriculture and Food, the National Academy of Sciences of Belarus, the State Committee for Property).

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 2019 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.

CONTENTS

Pg.

5. Air protection

6. Climate change

7. Protection and use of water resources

Pg.

8. Land resources and land protection

9. Application of fertilizers and pesticides

10. Specially protected natural areas

11. Protection and use of forest resources

12. Game husbandry

13. Waste

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, 2019:
9 465.7 thsd

Area: 207.6 thsd sq km

(forest land 42.5%; agricultural land 40.4%; land under swamps and water bodies 6.1%; 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

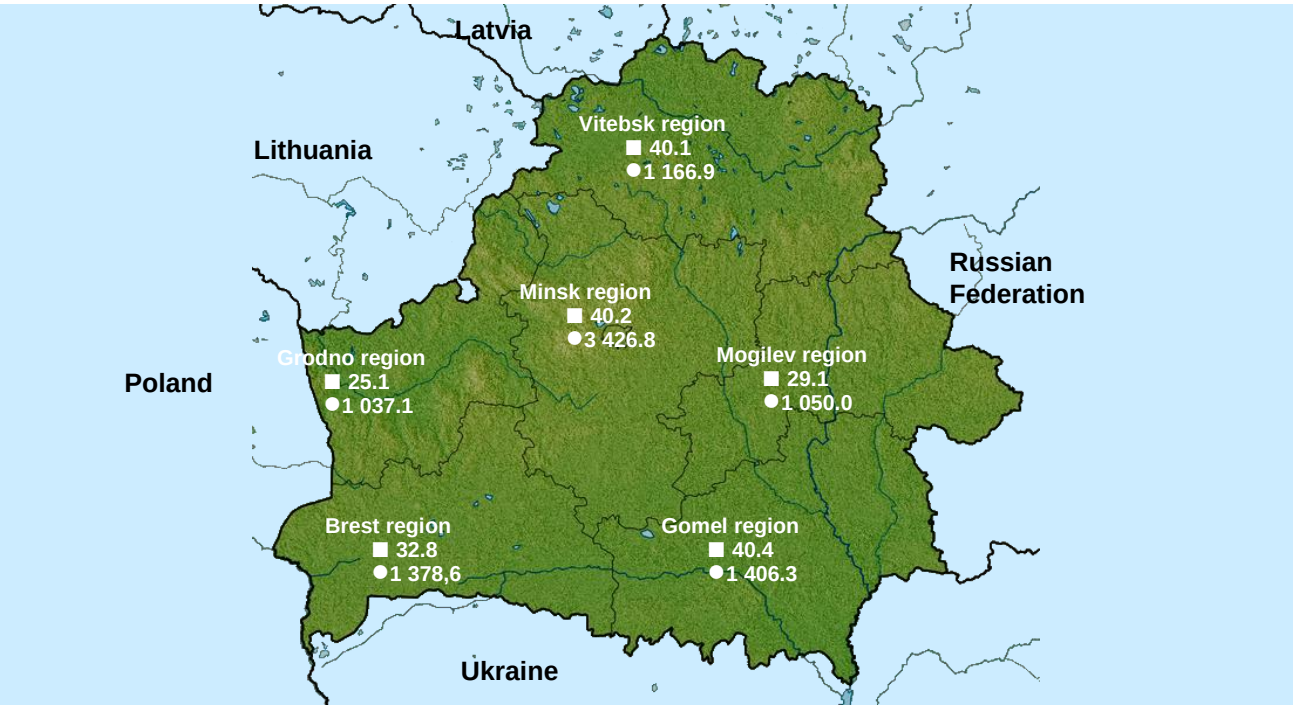
345 metres (Dzerzhinskaya mountain, Dzerzhinsk district of Minsk region).

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 2019, 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

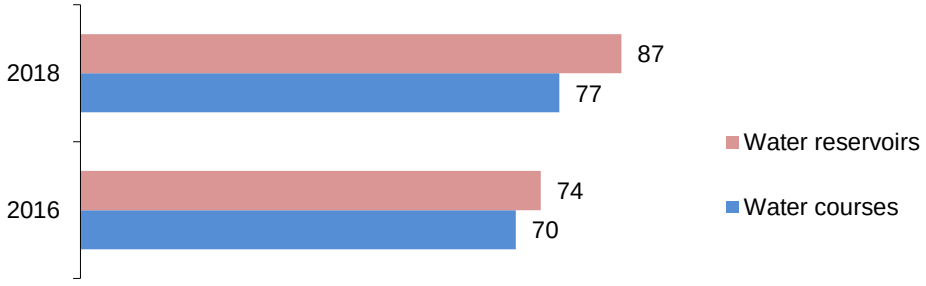
2.1.1. Proportion of domestic and industrial wastewater flows safely treated by regions and Minsk city (indicator 6.3.1)[1)]

(percent)

	2013	2014	2015	2016	2017	2018
Republic of Belarus	99.7	99.6	99.3	99.4	99.6	99.6
Regions and Minsk city:						
Brest	99.9	99.9	99.8	99.9	99.8	99.9
Vitebsk	99.9	99.9	99.9	99.4	99.7	100
Gomel	99.9	100	100	98.9	99.9	99.7
Grodno	99.9	100	100	100	99.9	99.9
Minsk city	100	100	100	99.8	100	100
Minsk	98.8	98.3	96.5	98.0	98.1	98.3
Mogilev	99.5	99.7	99.1	100	99.7	99.6

2.1.2. Proportion of surface water bodies classified as having “good” and higher ecological (hydrobiological) water quality status (indicator 6.3.2.1)[1)]

(percent)



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

2.1.3. Water use efficiency by regions and Minsk city (indicator 6.4.1)[1)]

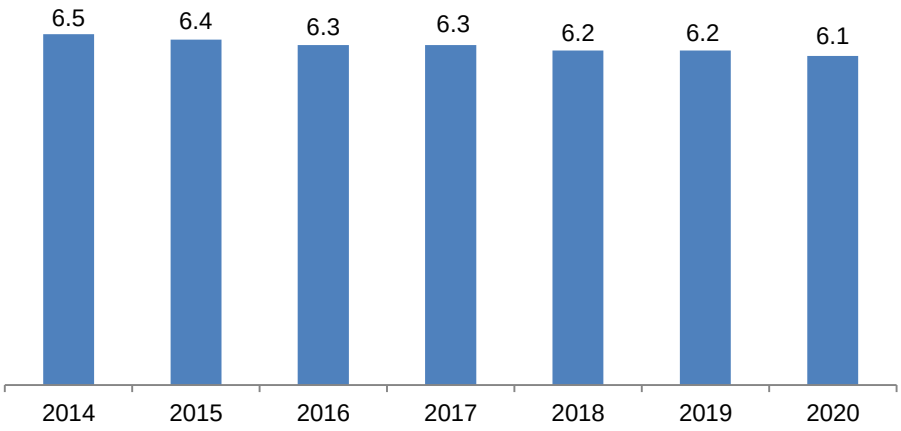
(BYN per cubic meter; GVA at constant prices 2015, for 2015 taking into account the retrospective denomination of 2016)

	2015	2016	2017	2018
Republic of Belarus	57.5	56.5	57.3	60.3
Regions and Minsk city:				
Brest	30.5	33.1	32.0	34.2
Vitebsk	36.4	36.8	39.8	40.2
Gomel	48.6	51.7	53.3	52.2
Grodno	42.4	45.3	42.8	47.4
Minsk city	134.7	123.4	144.7	151.9
Minsk	52.7	44.2	44.6	48.5
Mogilev	46.7	48.1	45.3	48.0

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

2.1.4. Proportion of land under swamps and water bodies in the total area of the republic (indicator 6.6.1)[1)]

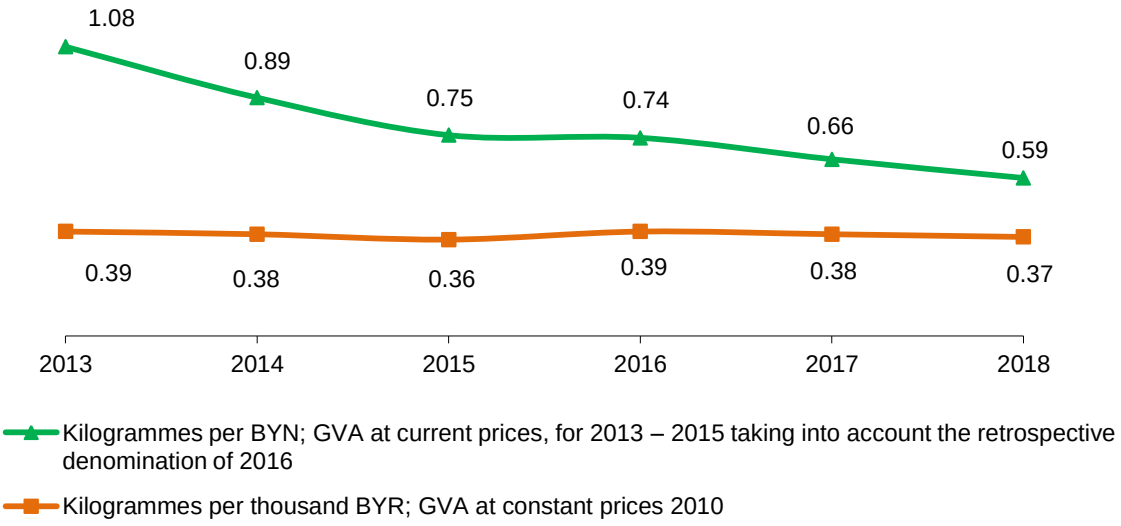
(percent)



[1)] Data of the State Committee for Property as of January 1 for calculation are used.

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)



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	2019
Republic of Belarus	75.3	89.5	90.1	95.5
Regions and Minsk city:				
Brest	70.9	92.5	92.9	99.7
Vitebsk	70.3	82.0	82.3	91.2
Gomel	71.9	95.2	95.6	99.5
Grodno	73.5	89.5	89.8	98.1
Minsk city	83.6	87.0	87.6	88.2
Minsk	71.0	87.0	87.4	99.2
Mogilev	83.0	94.8	95.2	95.5

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

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

(microgrammes per cubic metre of air)

	2013	2014	2015	2016	2017	2018	2019
Average annual concentrations of fine particulate matter (class PM_{10})							
Brest	…	22	15	11	10	20	16
Vitebsk	17	18	16	15	…	…	23
Gomel	28	38	53	…	32	29	29
Grodno	20	21	…	20	19	23	20
Minsk city							
residentional area	20	20	15	12	10	…	13
industrial area	35	40	35	24	13	12	…
Mogilev							
residentional area	18	22	14	15	13	19	20
industrial area	23	34	29	22	22	28	33
Novopolotsk	18	22	17	18	17	20	…
Polotsk	18	16	12	…	11	12	…
Average annual concentrations of fine particulate matter (class $PM_{2,5}$)							
Minsk city							
residentional area	…	…	…	17	14	15	15
Zhlobin	…	…	…	12	15	19	25

[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)

	2013	2014	2015	2016	2017	2018	2019
Republic of Belarus	149.5	182.0	127.3	171.2	175.6	231.9	219.3
Regions and Minsk city:							
Brest	215.3	260.9	103.6	248.2	122.1	442.3	497.3
Vitebsk	58.1	49.7	37.6	37.6	48.8	37.3	68.8
Gomel	58.2	64.6	64.8	83.0	103.4	114.1	108.8
Grodno	302.4	272.3	266.0	309.2	408.3	377.8	394.9
Minsk city	189.3	234.8	147.4	170.3	157.3	69.7	66.1
Minsk	64.3	77.6	55.6	68.4	92.1	244.0	209.8
Mogilev	178.2	336.8	263.2	340.8	400.6	476.1	309.3

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)

	2013	2014	2015	2016	2017	2018	2019
Republic of Belarus	77.1	72.1	73.7	73.9	62.8	92.8	72.9
Regions and Minsk city:							
Brest	92.9	75.5	60.1	97.0	68.6	148.0	95.8
Vitebsk	29.4	44.0	44.8	57.6	75.8	46.0	31.8
Gomel	392.6	293.2	324.6	167.9	105.5	95.1	92.0
Grodno	57.0	49.0	51.6	60.0	66.4	66.4	78.3
Minsk city	14.2	26.3	10.4	17.2	19.4	75.3	78.4
Minsk	46.7	53.9	47.9	59.2	59.9	25.3	22.3
Mogilev	100.0	98.1	96.7	92.0	73.2	101.4	65.4

[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 12.4.2.3)[1)]

(percent)

	2013	2014	2015	2016	2017	2018	2019
Republic of Belarus	1.5	3.4	2.0	2.1	3.0	1.3	1.5
Regions and Minsk city:							
Brest	0.3	0.2	1.0	0.4	2.9	0.2	0.0
Vitebsk	0.0	1.2	2.6	2.5	5.1	7.0	0.2
Gomel	0.3	0.5	0.3	0.2	0.2	0.1	0.0
Grodno	3.3	3.6	4.8	4.7	3.7	3.5	3.3
Minsk city	2.0	10.0	1.9	1.4	2.0	4.5	1.9
Minsk	2.4	1.6	2.7	2.4	12.2	1.0	4.1
Mogilev	0.1	0.0	0.2	2.5	0.9	0.2	0.4

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)

	2013	2014	2015	2016	2017	2018	2019
Republic of Belarus	8.8	8.9	8.2	7.1	6.6	5.6	8.6
Regions and Minsk city:							
Brest	4.9	11.3	7.1	7.0	7.4	2.3	3.1
Vitebsk	39.7	34.5	21.5	24.4	20.2	24.4	55.9
Gomel	22.9	26.1	18.7	13.7	8.3	16.0	20.6
Grodno	3.2	3.9	4.5	4.5	3.8	3.9	4.1
Minsk city	5.9	4.8	7.9	7.0	6.7	18.2	22.5
Minsk	18.3	16.9	16.2	11.6	10.9	4.5	5.2
Mogilev	8.2	4.6	5.1	4.2	5.3	3.4	5.9

[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)

	2013	2014	2015	2016	2017	2018	2019
Republic of Belarus	43.2	37.0	45.1	33.9	31.4	21.9	21.1
Regions and Minsk city:							
Brest	6.2	14.2	33.6	11.1	22.2	1.6	1.5
Vitebsk	33.1	29.6	34.9	22.7	17.1	24.9	13.5
Gomel	22.6	14.8	11.8	11.5	5.2	4.7	7.1
Grodno	41.9	47.4	46.4	32.3	28.6	27.2	22.4
Minsk city	78.3	59.9	80.2	75.1	73.4	4.1	1.9
Minsk	38.0	35.9	40.9	35.7	19.7	71.7	70.7
Mogilev	51.7	30.1	27.3	27.1	21.6	18.1	29.4

[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)

	2013	2014	2015	2016	2017	2018	2019
Republic of Belarus	12.0	14.5	15.6	15.8	17.2	18.8	22.5
Regions and Minsk city:							
Brest	11.8	14.9	16.9	16.1	16.2	19.3	30.5
Vitebsk	10.8	11.8	15.3	17.2	16.5	17.6	18.5
Gomel	13.2	14.7	15.0	15.7	16.6	18.1	21.0
Grodno	12.1	14.2	15.1	13.3	17.7	18.3	20.1
Minsk city	13.4	15.6	16.0	16.7	18.7	20.3	26.0
Minsk	7.2	11.2	12.4	12.4	13.7	14.3	17.3
Mogilev	13.8	18.2	18.9	18.8	20.5	24.6	20.8

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

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)

	2014	2015	2016	2017	2018	2019	2020
Republic of Belarus	7.8	8.2	8.8	8.7	8.7	8.9	9.0
Regions and Minsk city:							
Brest	14.0	14.1	14.2	14.4	14.4	14.7	15.0
Vitebsk	8.8	8.8	9.5	9.5	9.5	9.7	9.8
Gomel	5.7	6.8	7.4	7.4	7.4	7.4	7.4
Grodno	9.9	9.8	9.9	10.1	10.1	10.1	10.1
Minsk city	0.4	0.4	1.7	1.7	1.7	1.7	1.7
Minsk	6.4	6.9	7.6	7.6	7.6	7.6	7.5
Mogilev	2.3	3.8	4.4	3.0	3.5	4.6	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)

	2014	2015	2016	2017	2018	2019	2020
Republic of Belarus	39.3	39.5	39.7	39.8	39.8	39.8	39.9
Region:							
Brest	36.1	36.2	36.3	36.3	36.2	36.4	36.4
Vitebsk	39.8	40.3	40.8	40.8	41.0	41.1	41.3
Gomel	46.6	46.9	47.0	46.9	47.1	46.4	46.6
Grodno	35.0	35.1	35.1	35.1	35.2	35.7	35.7
Minsk	38.3	38.3	38.4	38.3	38.4	38.2	38.4
Mogilev	38.5	37.8	38.0	38.1	38.2	38.0	38.4

[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)

	2013	2014	2015	2016	2017	2018	2019
Republic of Belarus	195.7	197.7	200.1	203.5	205.9	206.7	208.2
Region:							
Brest	184.0	186.9	188.6	191.8	194.6	198.4	199.3
Vitebsk	184.3	186.5	190.2	194.0	196.4	197.6	199.2
Gomel	187.1	189.2	190.1	192.9	192.0	190.8	191.8
Grodno	216.1	216.9	220.0	226.4	237.4	239.7	240.1
Minsk	207.3	209.8	214.0	216.5	217.2	218.5	221.8
Mogilev	206.8	207.9	209.3	212.0	214.6	214.6	215.0

[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)

	2013	2014	2015	2016	2017	2018	2019
Republic of Belarus	38.6	37.8	40.1	40.9	45.4	52.0	56.7
Region:							
Brest	40.6	42.7	44.1	38.6	49.0	47.3	58.4
Vitebsk	40.0	37.3	36.3	42.7	52.2	61.8	68.3
Gomel	23.5	22.4	28.7	37.9	46.4	52.1	56.1
Grodno	55.0	54.9	51.9	52.8	58.3	54.5	57.5
Minsk	40.2	43.4	46.1	35.7	29.9	46.8	52.5
Mogilev	44.1	36.9	42.2	45.6	58.8	55.9	54.5

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

(cubic metres)

	2013	2014	2015	2016	2017	2018	2019
Republic of Belarus	2.1	2.3	2.1	2.4	2.7	3.3	3.1
Region:							
Brest	1.8	1.9	1.9	1.9	2.6	2.9	2.8
Vitebsk	2.0	2.0	2.0	1.7	1.9	2.2	2.3
Gomel	2.0	2.0	1.9	1.9	3.2	4.2	3.2
Grodno	2.1	2.4	2.1	2.1	2.2	2.6	3.1
Minsk	2.3	2.4	2.2	3.9	3.3	3.5	3.4
Mogilev	2.8	3.1	2.9	2.9	2.9	3.7	3.8

2.5.6. Progress towards sustainable forest management (indicator 15.2.1)[1)]

	2014	2015	2016	2017	2018	2019
Above-ground biomass stock in forest, tonnes per 1 ha	144.6	146.8	148.8	150.8	152.3	153.5
Forest area under an independently verified forest management certification scheme (as of December 31), thsd ha:						
PEFC	8 087.8	8 090.3	7 981.4	8 010.5	8 023.2	8 101.2
FSC	6 792.7	6 587.7	7 672.0	7 941.7	8 306.0	7 560.4
Proportion of forest area under a long term forest management plan in the total area of forest fund, %	100	100	100	100	100	100
Proportion of forest area located within legally established protect areas in the total area of forest fund, %	14.4	15.2	15.4	15.3	15.7	15.9

[1)] Data of the Ministry of Forestry.

2.5.7. Rare and endangered wildlife animal species by taxonomic group (indicator 15.5.1.1)[1)]

	2013	2014	2015	2016	2017	2018	2019
Total number of rare and endangered species relative, unit							
Mammals	17	20	20	20	20	20	20
Birds	71	70	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	9	9	9	9	9	9
Proportion of rare and endangered wildlife species relative to total species, percent							
Mammals	21.8	25.3	24.7	24.7	25.0	24.1	24.1
Birds	22.0	21.7	21.5	21.3	21.3	21.1	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	13.2	13.2	13.2	13.2	13.2	13.2

2.5.8. Rare and endangered wildlife plant species by taxonomic group (indicator 15.5.1.2)[1)]

	2013	2014	2015	2016	2017	2018	2019
Total number of rare and endangered species relative, unit							
Vascular	182	189	189	189	189	189	189
Mosses	31	34	34	34	34	34	34
Lichens	24	25	25	25	25	25	25
Algae	21	21	21	21	21	21	21
Fungi	35	34	34	34	34	34	34
Proportion of rare and endangered wildlife species relative to total species, percent							
Vascular	4.6	4.7	4.7	4.7	4.7	4.7	4.7
Mosses	7.2	7.9	7.9	7.8	7.8	7.8	7.8
Lichens	4.3	4.3	4.0	3.7	3.7	3.7	3.7
Algae	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Fungi	0.8	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 (GGIs) 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.

GGIs 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).

GGIs are divided into five groups:

- Socio-economic indicators;
- Environmental and resource productivity of the economy;
- Natural assets;
- 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

	2013	2014	2015	2016	2017	2018	2019
Socio-demographic patterns							
Average annual population, thsd	9 466	9 475	9 490	9 502	9 498	9 483	9 466
Population density, inhabitants per 1 km^2	46	46	46	46	46	46	45
Ageing ratio, k	0.885	0.888	0.885	0.884	0.890	0.899	…
Life expectancy at birth, years	72.6	73.2	73.9	74.1	74.4	74.5	74.5
Labour force participation rate, %	…	71.7	71.8	70.8	71.3	70.9	70.7
Actual unemployment rate (ILO methodology), %	…	5.1	5.2	5.8	5.6	4.8	4.2
Average annual registered unemployment rate, %	0.5	0.5	0.9	1.0	0.8	0.4	0.3
Access to education:							
gross graduation ratio from higher education, %	60.0	61.4	63.2	65.8	76.4	66.0	62.0
gross graduation ratio from secondary education, %	45.5	42.7	42.9	40.4	39.8	36.7	36.2
Gini coefficient, k	0.283	0.275	0.276	0.279	0.269	0.275	0.272
Economic patterns							
Gross domestic product							
BYN bn (2013 – 2015 – BYR bn)	670 688	805 793	899 098	94.9	105.7	122.3	132.0
% of previous year (at constant prices)	101.0	101.7	96.2	97.5	102.5	103.1	101.2
Gross domestic product, USD mln	74 761	78 536	55 317	47 479	54 698	59 955	63 174
Gross domestic product at PPP[1)], USD bn	179.4	179.6	171.2	168.4	173.6	183.3	188.8
Net national income, BYN bn (2013 – 2015 – BYR bn)	584 833	699 247	773 481	80.8	90.2	104.6	113.5
Labour productivity by GDP, BYN thsd (2013 – 2015 – BYR thsd)	146 490	177 078	199 977	21.6	24.3	28.2	30.4
Volume of foreign trade in goods and services to GDP (relative importance of trade)[2)], %	119.8	110.7	115.9	125.2	133.4	139.4	133.3
Consumer price index, % of previous year	118.3	118.1	113.5	111.8	106.0	104.9	105.6

[1)] Data of the World Bank; Years 2014 and 2017 – official results of the International Comparison Programme rounds.

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

3.2. Environmental and resource productivity of the economy

	2013	2014	2015	2016	2017	2018	2019
Production-based carbon productivity, BYN per kg	1.1	1.3	1.5	1.6	1.7	2.0	…
Demand-based carbon productivity, BYN per kg	1.0	1.2	1.5	1.5	1.7	1.9	…
Energy productivity, BYR thsd per kg of fuel equivalent (GDP at constant prices (2005))	2.6	2.6	2.7	2.7	2.7	2.6	2.7
Energy intensity of GDP, kg of fuel equivalent / BYR mln (GDP at constant prices (2005))	386.7	387.7	369.9	374.5	376.1	380.2	372.0
Renewable electricity as % of total electricity generation	0.9	0.7	0.9	1.1	2.2	1.8	2.5
Industrial waste generation intensity per unit of GDP, kg per BYN	0.60	0.65	0.55	0.52	0.52	0.50	0.46
Industrial waste generation intensity per capita, tonnes per capita	4.3	5.5	5.3	5.2	5.8	6.4	6.5
Industrial waste recovery rate, k	0.5	0.3	0.2	0.3	0.3	0.3	0.3
Solid municipal waste generation intensity per capita, kg per capita	388.9	392.9	393.5	399.3	400.2	400.2	401.9
Water productivity, BYN per m^3	43	52	61	63	73	84	93

3.3. Natural assets

3.3.1. Freshwater resources

	2013	2014	2015	2016	2017	2018	2019
Renewable freshwater resources							
mln m^3 per year[1)]	73 900	40 900	29 800	42 400	60 400	55 000	…
m^3 per capita	7 807	4 317	3 140	4 462	6 359	5 800	…
Water abstraction from groundwater bodies							
mln m^3 per year[1)]	874	867	845	818	811	809	807
m^3 per capita	92	91	89	86	85	85	86
Water abstraction from surface water bodies							
mln m^3 per year[1)]	696	704	603	632	586	581	556
m^3 per capita	74	74	64	67	62	61	59
Water resources exploitation index (by annual flow), %	2.1	3.8	4.9	3.4	2.3	2.5	…

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

3.3.2. Land resources[1)]

(at 1 January)

	2014	2015	2016	2017	2018	2019	2020
Total, thousand hectares							
Land resources	20 760	20 760	20 760	20 760	20 760	20 760	20 760
of which:							
agricultural land	8 726	8 632	8 582	8 540	8 502	8 460	8 391
forest land	8 631	8 653	8 742	8 769	8 774	8 791	8 814
land under swamps and water bodies	1 328	1 309	1 286	1 271	1 273	1 274	1 265
other land	2 075	2 166	2 150	2 180	2 212	2 235	2 291
Percent of total							
Land resources	100	100	100	100	100	100	100
of which:							
agricultural land	42.0	41.6	41.3	41.1	41.0	40.8	40.4
forest land	41.6	41.7	42.1	42.2	42.3	42.3	42.5
land under swamps and water bodies	6.4	6.3	6.2	6.1	6.1	6.1	6.1
other land	10.0	10.4	10.4	10.5	10.7	10.8	11.0

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

3.3.3. Forest resources[1)]

	2013	2014	2015	2016	2017	2018	2019
Forest-covered land:							
thsd ha	8 160.4	8 204.1	8 239.8	8 259.4	8 260.9	8 256.9	8 280.3
ha per capita	0.86	0.87	0.87	0.87	0.87	0.87	0.88
% of total land area of the country	39.3	39.5	39.7	39.8	39.8	39.8	39.9
Stock of forest vegetation, mln m^3	1 692.7	1 714.3	1 739.9	1 772.5	1 796.0	1 807.9	1 831.8
Marketable timber harvested, mln m^3	18.5	19.6	18.5	21.1	23.8	28.6	27.0
Area of forest felling, thsd ha	535.3	523.9	466.9	487.5	451.0	499.1	489.1
of which final cutting	30.5	37.5	31.3	25.1	25.0	27.1	37.8

[1)] Data of the Ministry of Forestry.

3.3.4. Fisheries and fish farming

	2013	2014	2015	2016	2017	2018	2019
Yield of fisheries, tonnes							
Total	22 701.1	19 910.4	18 118.1	18 994.1	18 111.4	19 659.1	17 614.1
of which:							
commercial	15 001.9	11 923.6	10 410.9	11 251.3	10 370.2	11 717.9	10 962.1
of which:							
in natural reservoirs	823.4	760.6	870.7	639.8	725.6	731.0	668.1
in artificial reservoirs	14 178.5	11 163.0	9 540.2	10 611.5	9 644.6	10 986.9	10 294.0
of which by species:							
carp	9 879.1	7 210.9	6 454.8	7 888.4	7 343.1	8 164.0	7 559.9
silver carp	1 869.9	1 876.9	1 271.0	541.0	329.3	476.3	727.0
salmon fishes	54.7	78.6	79.1	338.6	284.4	459.5	372.5
amateur	7 699.2	7 986.8	7 707.2	7 742.8	7 741.2	7 941.2	6 652.0
Fish sales, tonnes							
Total	12 912.6	10 507.4	9 448.8	9 006.1	9 595.1	8 981.2	9 764.4
of which caught fish:							
in natural reservoirs	806.1	762.2	857.9	635.1	717.5	683.5	614.5
in artificial reservoirs	12 106.5	9 745.2	8 590.9	8 371.0	8 877.6	8 297.7	9 149.9
of which by species:							
carp	9 202.5	7 185.3	5 857.0	6 025.0	7 040.8	6 560.4	7 309.5
silver carp	1 235.6	1 171.3	1 433.1	758.3	415.4	345.5	459.8
salmon fishes	52.5	49.7	76.4	337.4	282.2	459.7	373.1
Fish sales, BYN million (2013 – 2015 – BYR billion)							
Total	277.3	257.9	276.1	31.9	34.5	33.2	35.9
of which caught fish:							
in natural reservoirs	11.9	12.2	14.8	1.4	1.7	1.7	1.6
in artificial reservoirs	265.3	245.7	261.3	30.6	32.8	31.5	34.3
of which by species:							
carp	203.7	183.5	187.3	21.7	24.7	23.5	26.1
silver carp	20.5	23.7	34.2	2.1	1.1	1.0	1.3
salmon fishes	4.2	3.6	6.5	2.7	2.3	3.7	3.0

3.3.5. Wildlife resources[1)]

	2013	2014	2015	2016	2017	2018	2019
Animals							
Mammals – total species	78	79	81	81	80	83	83
of which rare and endangered species	17	20	20	20	20	20	20
as % of total species	21.8	25.3	24.7	24.7	25.0	24.1	24.1
Birds – total species	322	323	325	329	329	332	332
of which rare and endangered species	71	70	70	70	70	70	70
as % of total species	22.0	21.7	21.5	21.3	21.3	21.1	21.1
Reptiles – total species	7	7	7	7	7	7	7
of which rare 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 rare 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 rare and endangered species	10	9	9	9	9	9	9
as % of total species	14.7	13.2	13.2	13.2	13.2	13.2	13.2

Continued

	2013	2014	2015	2016	2017	2018	2019
				Plants			
Vascular plants – total species	3 990	4 000	4 003	4 010	4 027	4 029	4 032
of which rare and endangered species	182	189	189	189	189	189	189
as % of total species	4.6	4.7	4.7	4.7	4.7	4.7	4.7
Mosses – total species	433	433	433	435	437	437	437
of which rare and endangered species	31	34	34	34	34	34	34
as % of total species	7.2	7.9	7.9	7.8	7.8	7.8	7.8
Lichens – total species	554	586	630	669	669	670	671
of which rare and endangered species	24	25	25	25	25	25	25
as % of total species	4.3	4.3	4.0	3.7	3.7	3.7	3.7
Algae – total species	2 338	2 338	2 338	2 338	2 338	2 232	2 232
of which rare 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	4 119	4 125	4 143	4 150	4 150	4 150	4 152
of which rare and endangered species	35	34	34	34	34	34	34
as % of total species	0.8	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)

	2013	2014	2015	2016	2017	2018	2019
Average annual concentrations of fine particulate matter (class PM_{10})							
Brest	…	22	15	11	10	20	16
Vitebsk	17	18	16	15	…	…	23
Gomel	28	38	53	…	32	29	29
Grodno	20	21	…	20	19	23	20
Minsk							
residential area	20	20	15	12	10	…	13
industrial area	35	40	35	24	13	12	…
Mogilev							
residential area	18	22	14	15	13	19	20
industrial area	23	34	29	22	22	28	33
Novopolotsk	18	22	17	18	17	20	…
Polotsk	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	15
Zhlobin	…	…	…	12	15	19	25
Average annual maximum permissible concentration	15	15	15	15	15	15	15
Average annual concentrations of ground-level ozone							
Brest	65	54	61	58	58	62	61
Vitebsk	…	…	…	…	…	24	35
Gomel	54	44	45	45	47	40	42
Grodno	65	62	57	43	60	45	64
Minsk	49	32	44	40	34 – 44[2)]	37 – 38[2)]	33 – 39[2)]
Mogilev							
residential area	67	64	62	71	67	60	61
industrial area	…	…	…	46	44	52	54
Novopolotsk	59	48	55	47	39	34	29
Polotsk	55	47	56	48	44	45	48
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)

	2013	2014	2015	2016	2017	2018	2019
Wastewater discharge into surface water bodies	974	954	870	1 048	1 053	1 034	1 019
of which:							
without pre-treatment	317	316	246	339	354	341	326
treated according to standards	654	635	618	703	694	689	689
insufficiently treated	3	3	6	6	4	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)

	2014	2015	2016	2017	2018	2019	2020
Share of households living in apartments/ houses equipped with:							
piped water	89.9	90.5	92.6	93.7	94.7	95.5	96.1
hot water supply	82.7	83.6	85.1	86.1	88.6	89.7	90.9
sewerage	87.8	88.5	91.1	91.9	93.4	93.9	94.8

3.5. Economic opportunities

	2015[1)]	2016	2017	2018	2019
Total environmental protection expenditure, BYN mln	8 877.1	1 012.2	1 047.3	820.4	919.2
of which fixed capital investment spent on environmental protection and rational use of natural resources, BYN mln	2 158.7	290.8	251.6	112.6	157.3
Total environmental protection expenditure as % of GDP	1.0	1.1	1.0	0.7	0.7
Environmental tax – total, BYN mln[2)]	1 291.6	137.6	172.6	193.7	215.4
% of GDP	0.1	0.1	0.2	0.2	0.2
% of total tax revenue	0.6	0.6	0.7	0.6	0.7

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

[2)] Data of the Ministry of Finance.

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	2019
Total environmental protection expenditure	8 877.1	1 012.2	1 047.3	820.4	919.2
of which on:					
expenditure on protection of ambient air and climate	2 222.6	303.0	276.7	173.9	223.4
of which:					
current expenditure on protection of ambient air and climate	1 088.5	118.9	131.8	128.7	146.0
fixed capital investment spent on air protection	1 134.1	184.1	144.9	45.2	77.4
expenditure on wastewater management	4 453.2	469.2	509.6	375.3	389.7
of which:					
current expenditure on wastewater management	3 871.1	411.8	449.6	335.8	341.7
fixed capital investment spent on protection and rational use of water resources	582.0	57.3	60.1	39.6	48.1

Continued

	2015	2016	2017	2018	2019
expenditure on waste management	1 284.3	151.5	165.0	185.6	231.0
of which:					
current expenditure on waste management	1 207.0	131.1	145.6	180.9	207.6
fixed capital investment spent on building constructions, landfills, facilities for industrial waste disposal, utilization, neutralization	77.3	20.4	19.3	4.7	23.5
expenditure on protection and remediation of soil, groundwater and surface water	428.5	37.0	30.4	32.1	17.2
of which:					
current expenditure on protection and remediation of soil, groundwater and surface water	70.7	8.7	7.8	9.2	8.9
fixed capital investment spent on protection and remediation of soil, groundwater and surface water	357.8	28.3	22.6	22.9	8.3
expenditure on noise and vibration abatement (excluding workplace protection)	–	–	–	0.5	0.3
expenditure on protection of biodiversity and landscapes	136.9	12.3	17.5	16.7	17.9
of which:					
current expenditure on protection of biodiversity and landscapes	129.4	11.6	12.8	16.5	17.8
fixed capital investment spent on protection of biodiversity and landscapes	7.6	0.7	4.6	0.2	0.1
expenditure on protection against radiation (excluding external safety)	–	–	–	0.6	0.6
expenditure on research and development	4.3	0.4	0.9	0.9	1.5
expenditure on other environmental protection activities	347.3	38.9	47.2	34.8	37.4
Total environmental expenditure as % of GDP	1.0	1.1	1.0	0.7	0.7

4.2. Total environmental protection expenditure

(at constant prices; % of previous year)

	2016	2017	2018	2019
Total environmental protection expenditure	102.4	94.9	73.2	105.3
of which on:				
expenditure on protection of ambient air and climate	123.5	84.7	58.4	120.0
of which:				
current expenditure on protection of ambient air and climate	97.4	101.1	91.7	107.0
fixed capital investment spent on air protection	148.6	74.2	28.1	157.0
expenditure on wastewater management	94.3	99.3	69.1	97.6
of which:				
current expenditure on wastewater management	94.9	99.4	70.4	96.0
fixed capital investment spent on protection and rational use of water resources	90.2	98.7	59.4	111.5
expenditure on waste management	105.6	99.6	106.1	117.2
of which:				
current expenditure on waste management	96.9	101.2	117.2	108.3
fixed capital investment spent on building constructions, landfills, facilities for industrial waste disposal, utilization, neutralization	241.1	89.5	22.0	455.8
expenditure on protection and remediation of soil, groundwater and surface water	78.5	76.9	96.3	49.9
of which:				
current expenditure on protection and remediation of soil, groundwater and surface water	109.5	82.3	110.3	91.5
fixed capital investment spent on protection and remediation of soil, groundwater and surface water	72.4	75.2	91.4	33.2

Continued

	2016	2017	2018	2019
expenditure on noise and vibration abatement (excluding workplace protection)	–	–	–	67.5
expenditure on protection of biodiversity and landscapes	75.2	124.1	89.4	107.0
of which:				
current expenditure on protection of biodiversity and landscapes	74.6	94.0	120.4	107.6
fixed capital investment spent on protection of biodiversity and landscapes	86.2	614.1	3.6	48.4
expenditure on protection against radiation (excluding external safety)	–	–	–	94.1
expenditure on research and development	77.1	199.9	91.3	137.7
expenditure on other environmental protection activities	101.4	109.5	65.9	101.7

4.3. Current environmental protection expenditure

(at current prices)

	2018		2019	
	BYN million	as % of total	BYN million	as % of total
Republic of Belarus	657.8	100	712.6	100
Regions and Minsk city:				
Brest	77.7	11.8	77.4	10.9
Vitebsk	108.5	16.5	113.7	16.0
Gomel	145.6	22.1	153.6	21.6
Grodno	57.5	8.7	68.2	9.6
Minsk city	107.3	16.3	112.0	15.7
Minsk	88.8	13.5	108.2	15.2
Mogilev	72.5	11.0	79.6	11.2

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

(at current prices)

	2013	2014	2015	2016	2017	2018	2019
BYN million (2013 – 2015 – BYR billion)							
Republic of Belarus	963.5	1 261.4	2 158.7	290.8	251.6	112.6	157.3
Regions and Minsk city:							
Brest	96.4	114.2	107.9	6.2	18.9	13.9	20.0
Vitebsk	279.3	681.9	1 286.8	73.3	71.4	52.9	107.0
Gomel	208.5	111.5	264.0	130.3	95.6	5.3	7.7
Grodno	80.0	83.8	3.7	13.6	10.2	5.0	4.0
Minsk city	29.5	49.3	86.4	37.2	15.1	2.9	2.8
Minsk	223.5	188.1	390.3	26.7	28.1	27.5	10.9
Mogilev	46.4	32.7	19.7	3.4	12.3	5.1	4.9
As % of total							
Republic of Belarus	100	100	100	100	100	100	100
Regions and Minsk city:							
Brest	10.0	9.1	5.0	2.1	7.5	12.4	12.7
Vitebsk	29.0	54.1	59.6	25.2	28.4	47.0	68.0
Gomel	21.6	8.8	12.2	44.8	38.0	4.7	4.9
Grodno	8.3	6.6	0.2	4.7	4.0	4.4	2.6
Minsk city	3.1	3.9	4.0	12.8	6.0	2.6	1.8
Minsk	23.2	14.9	18.1	9.2	11.2	24.4	6.9
Mogilev	4.8	2.6	0.9	1.2	4.9	4.5	3.1

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 recovered air pollutants includes captured pollutants that are returned to production and recovered in industry.

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

5.1. Main indicators of air polluting emissions

	2013	2014	2015	2016	2017	2018	2019
Air polluting emissions – total, thsd t	1 373.7	1 343.6	1 258.9	1 244.8	1 240.6	1 235.3	1 201.9
of which:							
from mobile sources	928.4	880.8	800.6	791.7	787.2	782.0	775.8
from stationary sources	445.3	462.8	458.3	453.1	453.4	453.3	426.1
Air pollutants from stationary sources, thsd t	3 332.0	4 108.5	3 645.4	3 374.4	3 072.6	3 027.4	2 617.5
Captured and detoxified air pollutants from stationary sources, thsd t	2 886.7	3 645.7	3 187.1	2 921.4	2 619.2	2 574.1	2 191.5
Share of captured and detoxified air pollutants in total air polluting emissions from stationary sources, %	86.6	88.7	87.4	86.6	85.2	85.0	83.7
Reduction of air polluting emissions after emission-reducing activities, thsd t	26.1	14.2	5.8	19.3	4.9	4.8	1.4

Continued

	2013	2014	2015	2016	2017	2018	2019
As percentage of the previous year							
Air polluting emissions – total	98.9	97.8	93.7	98.9	99.7	99.6	97.3
of which:							
from mobile sources	97.1	94.9	90.9	98.9	99.4	99.3	99.2
from stationary sources	102.8	103.9	99.0	98.9	100.1	100.0	94.0
Air pollutants from stationary sources	106.7	123.3	88.7	92.6	91.1	98.5	86.5
Captured and detoxified air pollutants from stationary sources	107.3	126.3	87.4	91.7	89.7	98.3	85.1
As percentage of 2015							
Air polluting emissions – total	–	–	100	98.9	98.5	98.1	95.5
of which:							
from mobile sources	–	–	100	98.9	98.3	97.7	96.9
from stationary sources	–	–	100	98.9	98.9	98.9	93.0
Air pollutants from stationary sources	–	–	100	92.6	84.3	83.0	71.8
Captured and detoxified air pollutants from stationary sources	–	–	100	91.7	82.2	80.8	68.8

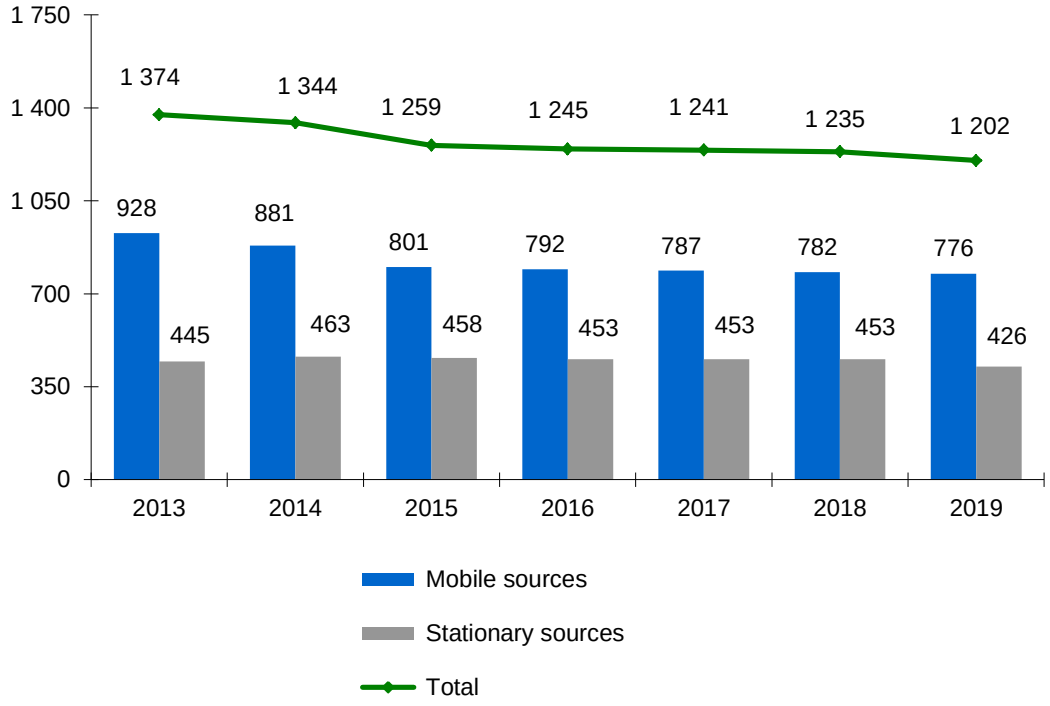
5.2. Air polluting emissions by regions and Minsk city

(thousand tonnes)

	2013	2014	2015	2016	2017	2018	2019
Air polluting emissions – total							
Republic of Belarus	1 373.7	1 343.6	1 258.9	1 244.8	1 240.6	1 235.3	1 201.9
Regions and Minsk city:							
Brest	177.6	179.6	166.6	169.0	166.7	171.3	177.5
Vitebsk	226.1	212.5	208.4	201.4	190.6	195.7	197.3
Gomel	225.9	215.3	205.6	207.7	203.4	197.0	183.6
Grodno	170.0	166.2	154.3	148.9	154.5	152.6	144.5
Minsk city	185.6	181.2	146.4	140.0	155.1	153.9	148.7
Minsk	253.5	256.3	255.6	258.8	247.2	247.6	238.7
Mogilev	134.9	132.5	122.1	118.9	123.1	117.2	111.5
of which:							
from mobile sources							
Republic of Belarus	928.4	880.8	800.6	791.7	787.2	782.0	775.8
Regions and Minsk city:							
Brest	138.4	127.8	116.3	117.5	116.1	118.2	122.8
Vitebsk	120.3	110.0	96.4	93.5	88.3	88.2	88.0
Gomel	123.2	113.7	106.0	103.1	97.8	96.6	96.5
Grodno	116.8	107.4	97.8	95.1	94.2	93.8	94.1
Minsk city	160.5	157.7	126.1	121.9	136.8	135.6	130.1
Minsk	182.5	181.8	179.7	183.9	178.6	177.0	174.4
Mogilev	86.7	82.4	78.3	76.7	75.4	72.6	69.9
from stationary sources							
Republic of Belarus	445.3	462.8	458.3	453.1	453.4	453.3	426.1
Regions and Minsk city:							
Brest	39.2	51.8	50.3	51.5	50.6	53.1	54.7
Vitebsk	105.8	102.5	112.0	107.9	102.3	107.5	109.3
Gomel	102.7	101.6	99.6	104.6	105.6	100.4	87.1
Grodno	53.2	58.8	56.5	53.8	60.3	58.8	50.4
Minsk city	25.1	23.5	20.3	18.1	18.3	18.3	18.6
Minsk	71.0	74.5	75.9	74.9	68.6	70.6	64.3
Mogilev	48.2	50.1	43.8	42.2	47.7	44.6	41.6

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)

	2013	2014	2015	2016	2017	2018	2019
Republic of Belarus	67.6	65.6	63.6	63.6	63.5	63.3	64.5
Regions and Minsk city:							
Brest	77.9	71.2	69.8	69.5	69.6	69.0	69.2
Vitebsk	53.2	51.8	46.3	46.4	46.3	45.1	44.6
Gomel	54.5	52.8	51.6	49.6	48.1	49.0	52.6
Grodno	68.7	64.6	63.4	63.9	61.0	61.5	65.1
Minsk city	86.5	87.0	86.1	87.1	88.2	88.1	87.5
Minsk	72.0	70.9	70.3	71.1	72.2	71.5	73.1
Mogilev	64.3	62.2	64.1	64.5	61.3	61.9	62.7

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

(kilogrammes)

	2013	2014	2015	2016	2017	2018	2019
Republic of Belarus	98	93	84	83	83	82	82
Regions and Minsk city:							
Brest	100	92	84	85	84	86	91
Vitebsk	100	92	81	79	75	75	77
Gomel	86	80	74	73	69	68	69
Grodno	111	102	93	91	90	90	92
Minsk city	84	82	65	62	69	68	65
Minsk	130	129	127	129	125	124	119
Mogilev	81	77	73	72	71	69	68

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

(kilogrammes)

	2013	2014	2015	2016	2017	2018	2019
Republic of Belarus	4 472	4 243	3 856	3 814	3 792	3 767	3 737
Regions and Minsk city:							
Brest	4 221	3 898	3 547	3 584	3 541	3 605	3 745
Vitebsk	3 004	2 747	2 407	2 335	2 205	2 202	2 197
Gomel	3 052	2 816	2 626	2 554	2 422	2 393	2 390
Grodno	4 648	4 274	3 892	3 785	3 749	3 733	3 745
Minsk city	461 207	453 161	362 356	350 287	393 103	387 429	368 555
Minsk	4 580	4 562	4 510	4 615	4 482	4 442	4 377
Mogilev	2 983	2 835	2 694	2 639	2 594	2 498	2 405

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

(thousand tonnes)

	2013	2014	2015	2016	2017	2018	2019
Total air polluting emissions							
Republic of Belarus	928.4	880.8	800.6	791.7	787.2	782.0	775.8
Regions and Minsk city:							
Brest	138.4	127.8	116.3	117.5	116.1	118.2	122.8
Vitebsk	120.3	110.0	96.4	93.5	88.3	88.2	88.0
Gomel	123.2	113.7	106.0	103.1	97.8	96.6	96.5
Grodno	116.8	107.4	97.8	95.1	94.2	93.8	94.1
Minsk city	160.5	157.7	126.1	121.9	136.8	135.6	130.1
Minsk	182.5	181.8	179.7	183.9	178.6	177.0	174.4
Mogilev	86.7	82.4	78.3	76.7	75.4	72.6	69.9
of which: carbon monoxide							
Republic of Belarus	604.4	576.5	526.9	521.3	514.0	508.5	505.5
Regions and Minsk city:							
Brest	88.1	81.2	74.3	74.9	73.6	74.6	77.4
Vitebsk	77.0	70.7	62.3	60.6	56.5	55.9	55.9
Gomel	78.2	71.7	67.6	65.8	61.5	60.5	60.3
Grodno	75.2	69.4	63.6	61.8	60.6	60.0	60.2
Minsk city	109.2	108.4	86.0	83.5	93.3	91.6	89.3
Minsk	120.7	121.3	121.4	124.2	119.2	118.6	116.9
Mogilev	56.0	53.8	51.7	50.5	49.3	47.3	45.5
nitrogen dioxide							
Republic of Belarus	101.7	95.1	85.1	84.0	85.4	85.6	84.2
Regions and Minsk city:							
Brest	16.0	14.8	13.3	13.5	13.5	13.9	14.5
Vitebsk	13.7	12.4	10.7	10.3	10.0	10.2	10.1
Gomel	14.3	13.4	12.1	11.8	11.6	11.6	11.6
Grodno	13.2	12.0	10.7	10.4	10.6	10.7	10.6
Minsk city	15.8	15.0	12.3	11.7	13.3	13.5	12.3
Minsk	19.1	18.6	17.7	18.2	18.3	17.8	17.5
Mogilev	9.6	8.9	8.3	8.1	8.1	7.9	7.6

Continued

	2013	2014	2015	2016	2017	2018	2019
				sulphur dioxide			
Republic of Belarus	0.3	0.2	0.1	0.0	0.1	0.1	0.1
Regions and Minsk city:							
Brest	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Vitebsk	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gomel	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Grodno	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minsk city	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Minsk	0.1	0.1	0.1	0.0	0.1	0.1	0.1
Mogilev	0.0	0.0	0.0	0.0	0.0	0.0	0.0
				hydrocarbons			
Republic of Belarus	192.7	182.0	164.5	163.1	164.0	164.2	162.8
Regions and Minsk city:							
Brest	29.4	27.3	24.7	25.1	25.0	25.6	26.7
Vitebsk	25.4	23.1	20.1	19.5	18.7	18.9	18.8
Gomel	26.2	24.4	22.5	21.9	21.1	21.0	21.1
Grodno	24.5	22.5	20.4	19.9	19.9	20.0	20.1
Minsk city	31.8	30.9	25.0	24.1	27.3	27.5	25.9
Minsk	37.2	36.7	35.9	36.8	36.3	36.0	35.5
Mogilev	18.2	17.1	16.0	15.8	15.7	15.2	14.7
				soot			
Republic of Belarus	29.3	27.0	23.9	23.3	23.7	23.6	23.2
Regions and Minsk city:							
Brest	4.8	4.5	4.0	4.0	4.0	4.1	4.3
Vitebsk	4.2	3.8	3.3	3.1	3.1	3.2	3.1
Gomel	4.5	4.2	3.8	3.6	3.6	3.5	3.6
Grodno	3.9	3.5	3.1	3.0	3.1	3.1	3.1
Minsk city	3.6	3.3	2.8	2.6	2.9	3.0	2.6
Minsk	5.4	5.1	4.6	4.7	4.7	4.5	4.4
Mogilev	2.9	2.6	2.3	2.3	2.3	2.2	2.1

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

(kilogrammes)

	2013	2014	2015	2016	2017	2018	2019
Republic of Belarus	47	49	48	48	48	48	45
Regions and Minsk city:							
Brest	28	37	36	37	37	38	41
Vitebsk	88	85	94	91	86	91	96
Gomel	72	71	70	74	74	71	63
Grodno	50	56	54	51	58	56	49
Minsk city	13	12	10	9	9	9	9
Minsk	51	53	54	53	48	49	44
Mogilev	45	47	41	40	45	42	41

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

(kilogrammes)

	2013	2014	2015	2016	2017	2018	2019
Republic of Belarus	2 145	2 229	2 208	2 182	2 184	2 184	2 052
Regions and Minsk city:							
Brest	1 196	1 580	1 533	1 571	1 545	1 621	1 668
Vitebsk	2 643	2 560	2 796	2 695	2 553	2 685	2 728
Gomel	2 543	2 517	2 467	2 591	2 617	2 486	2 158
Grodno	2 117	2 340	2 248	2 142	2 400	2 339	2 007
Minsk city	72 198	67 517	58 351	51 928	52 618	52 154	52 694
Minsk	1 781	1 870	1 905	1 879	1 723	1 773	1 615
Mogilev	1 660	1 722	1 506	1 453	1 639	1 534	1 432

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

(thousand tonnes)

	2013	2014	2015	2016	2017	2018	2019
Total							
Republic of Belarus	445.3	462.8	458.3	453.1	453.4	453.3	426.1
Regions and Minsk city:							
Brest	39.2	51.8	50.3	51.5	50.6	53.1	54.7
Vitebsk	105.8	102.5	112.0	107.9	102.3	107.5	109.3
Gomel	102.7	101.6	99.6	104.6	105.6	100.4	87.1
Grodno	53.2	58.8	56.5	53.8	60.3	58.8	50.4
Minsk city	25.1	23.5	20.3	18.1	18.3	18.3	18.6
Minsk	71.0	74.5	75.9	74.9	68.6	70.6	64.3
Mogilev	48.2	50.1	43.8	42.2	47.7	44.6	41.6
of which: solids							
Republic of Belarus	36.1	34.9	30.1	27.4	27.0	26.1	24.2
Regions and Minsk city:							
Brest	4.3	4.3	3.3	3.2	3.2	2.6	2.6
Vitebsk	6.0	6.2	5.6	5.1	4.9	4.9	4.5
Gomel	5.5	5.4	4.4	4.3	4.7	4.3	3.9
Grodno	5.6	5.2	5.0	4.4	4.3	4.0	3.7
Minsk city	2.2	2.0	1.6	1.4	1.4	1.4	1.4
Minsk	6.9	6.4	6.1	5.1	5.0	5.2	4.7
Mogilev	5.7	5.5	4.1	3.9	3.6	3.8	3.5
sulphur dioxide							
Republic of Belarus	48.5	50.3	56.8	53.3	47.6	47.0	47.1
Regions and Minsk city:							
Brest	1.2	1.3	1.3	1.2	0.9	1.1	1.3
Vitebsk	21.0	23.0	27.5	25.4	22.2	23.6	25.4
Gomel	19.9	19.8	21.8	20.6	19.6	17.3	15.5
Grodno	0.9	0.9	1.0	1.7	1.2	1.0	0.9
Minsk city	0.9	1.0	0.8	0.6	0.4	0.7	0.7
Minsk	3.3	2.4	3.1	2.7	2.3	2.2	2.1
Mogilev	1.3	1.9	1.3	1.3	1.1	1.0	1.2

Continued

	2013	2014	2015	2016	2017	2018	2019
carbon monoxide							
Republic of Belarus	81.9	80.9	75.4	73.1	75.1	76.9	72.0
Regions and Minsk city:							
Brest	6.3	6.2	5.5	5.5	6.0	5.7	6.1
Vitebsk	14.5	14.4	14.6	14.4	13.9	14.1	13.6
Gomel	16.8	15.9	12.9	15.1	15.7	15.9	14.3
Grodno	8.3	8.8	9.9	7.8	9.7	10.1	8.9
Minsk city	10.1	10.3	8.5	7.0	7.0	7.0	7.1
Minsk	17.9	17.1	17.4	16.5	15.4	16.2	14.6
Mogilev	7.8	8.2	6.6	6.8	7.3	7.9	7.4
nitrogen dioxide							
Republic of Belarus	55.7	54.3	49.3	50.8	48.8	45.8	44.2
Regions and Minsk city:							
Brest	3.0	3.8	4.0	3.7	3.6	2.9	3.6
Vitebsk	11.7	9.4	9.6	10.3	10.1	10.6	10.6
Gomel	10.0	9.1	8.7	9.5	9.6	7.9	7.3
Grodno	8.7	9.8	8.5	9.3	8.1	6.5	5.7
Minsk city	6.0	5.4	5.0	5.2	5.1	5.6	5.7
Minsk	5.8	6.4	5.6	5.2	5.1	5.3	4.9
Mogilev	10.4	10.5	8.0	7.6	7.2	7.1	6.5
non–methane volatile organic compounds							
Republic of Belarus	60.9	55.5	54.0	54.0	53.8	54.8	55.0
Regions and Minsk city:							
Brest	2.2	2.4	1.9	1.5	1.9	1.9	2.1
Vitebsk	27.1	25.3	25.8	25.2	26.2	27.9	29.6
Gomel	14.8	13.6	13.8	14.0	13.1	12.6	11.3
Grodno	4.1	3.5	3.0	3.2	3.3	3.3	3.0
Minsk city	4.3	3.3	2.8	2.3	3.0	2.2	2.2
Minsk	4.1	3.5	2.9	3.5	2.9	3.2	2.8
Mogilev	4.4	3.9	3.9	4.3	3.4	3.7	4.0

Continued

	2013	2014	2015	2016	2017	2018	2019
				hydrocarbons			
Republic of Belarus	125.8	149.1	157.7	158.8	166.1	166.9	150.3
Regions and Minsk city:							
Brest	18.3	28.0	28.8	30.7	29.6	31.7	31.5
Vitebsk	19.2	18.7	23.2	21.5	19.6	21.4	20.5
Gomel	29.9	30.7	31.8	34.3	36.3	36.2	29.7
Grodno	19.4	23.8	22.5	21.2	26.5	26.4	21.9
Minsk city	0.6	0.5	0.6	0.5	0.5	0.5	0.5
Minsk	23.5	30.7	33.7	34.8	30.9	31.8	29.1
Mogilev	14.8	16.6	17.2	15.7	22.5	18.9	17.1
				nitrogen oxide			
Republic of Belarus	6.5	6.0	5.7	5.9	5.8	5.7	5.7
Regions and Minsk city:							
Brest	0.5	0.6	0.7	0.6	0.6	0.5	0.6
Vitebsk	1.5	1.1	1.1	1.4	1.4	1.6	1.6
Gomel	0.9	0.9	0.8	0.9	0.9	0.6	0.6
Grodno	0.7	0.6	0.7	0.7	0.8	0.8	0.7
Minsk city	0.9	0.8	0.8	0.8	0.8	0.9	0.9
Minsk	1.1	1.2	1.1	1.0	1.0	1.0	0.9
Mogilev	0.9	0.8	0.5	0.4	0.4	0.4	0.4
				other			
Republic of Belarus	29.9	31.7	29.2	29.7	29.2	30.1	27.4
Regions and Minsk city:							
Brest	3.5	5.3	4.8	5.1	4.9	6.7	6.8
Vitebsk	4.8	4.4	4.7	4.7	3.9	3.6	3.5
Gomel	4.8	6.1	5.5	5.9	5.8	5.6	4.6
Grodno	5.4	6.1	5.9	5.5	6.4	6.6	5.6
Minsk city	0.1	0.1	0.2	0.1	0.1	0.1	0.1
Minsk	8.4	6.9	6.0	6.1	6.0	5.7	5.3
Mogilev	2.9	2.7	2.1	2.3	2.1	1.8	1.5

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

(thousand tonnes)

	2013	2014	2015	2016	2017	2018	2019
Total							
Republic of Belarus	90.1	83.0	83.1	89.9	87.2	89.3	85.0
Regions and Minsk city:							
Brest	8.6	9.7	9.4	8.7	8.2	7.8	8.8
Vitebsk	21.5	20.6	20.8	26.6	22.8	24.2	23.7
Gomel	12.2	11.3	9.5	12.0	12.9	12.7	11.2
Grodno	8.2	7.3	7.3	7.7	8.7	8.1	7.3
Minsk city	8.8	7.9	7.1	7.3	7.1	8.0	8.1
Minsk	21.3	16.4	20.7	19.6	18.7	20.0	17.8
Mogilev	9.5	9.9	8.4	8.2	8.8	8.4	8.2
of which: solids							
Republic of Belarus	11.5	10.9	9.6	9.2	8.5	8.8	7.9
Regions and Minsk city:							
Brest	1.8	1.7	1.3	1.2	1.1	1.0	0.9
Vitebsk	2.2	2.3	2.2	2.1	1.9	2.0	1.8
Gomel	1.7	1.7	1.0	1.0	1.2	1.1	0.9
Grodno	1.0	0.9	0.9	0.8	0.8	0.9	0.9
Minsk city	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minsk	2.8	2.4	2.5	2.3	2.2	2.4	2.2
Mogilev	2.0	1.9	1.7	1.8	1.4	1.5	1.3
sulphur dioxide							
Republic of Belarus	7.7	8.5	8.6	12.5	7.9	8.1	8.0
Regions and Minsk city:							
Brest	0.8	0.9	1.0	0.9	0.6	0.8	1.0
Vitebsk	1.3	3.0	2.3	5.0	1.8	2.1	2.0
Gomel	1.1	0.9	0.9	2.1	2.0	1.7	1.5
Grodno	0.4	0.5	0.4	0.8	0.5	0.4	0.4
Minsk city	0.6	0.8	0.6	0.4	0.2	0.5	0.5
Minsk	2.9	1.9	2.8	2.4	2.0	1.8	1.7
Mogilev	0.6	0.6	0.6	0.9	0.8	0.7	0.8

Continued

	2013	2014	2015	2016	2017	2018	2019
carbon monoxide							
Republic of Belarus	33.8	28.8	32.3	32.9	34.6	35.3	32.7
Regions and Minsk city:							
Brest	2.9	2.9	2.6	2.7	2.8	2.8	2.9
Vitebsk	7.9	7.9	8.4	9.3	9.0	8.7	8.7
Gomel	4.6	4.3	3.6	4.2	4.5	5.1	4.3
Grodno	3.0	2.8	3.0	3.0	4.0	3.3	2.9
Minsk city	1.9	1.7	1.5	1.3	1.5	1.5	1.5
Minsk	10.1	5.8	10.3	9.6	9.2	10.3	9.0
Mogilev	3.2	3.4	2.8	2.9	3.5	3.7	3.4
nitrogen dioxide							
Republic of Belarus	29.8	27.1	25.6	26.4	27.0	26.5	26.5
Regions and Minsk city:							
Brest	2.4	3.2	3.4	3.2	3.1	2.4	3.1
Vitebsk	8.6	6.3	6.3	7.1	7.2	7.7	7.6
Gomel	3.8	3.3	3.0	3.6	4.0	3.4	3.2
Grodno	2.5	2.1	1.9	1.9	2.2	2.1	1.9
Minsk city	5.3	4.7	4.3	4.7	4.6	5.1	5.2
Minsk	4.2	4.5	4.0	3.7	3.7	3.8	3.5
Mogilev	3.0	3.0	2.6	2.2	2.3	2.1	2.1

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

(thousand tonnes)

	2013	2014	2015	2016	2017	2018	2019
Total							
Republic of Belarus	355.2	379.8	375.2	363.1	366.2	364.0	341.1
Regions and Minsk city:							
Brest	30.5	42.1	40.9	42.8	42.4	45.4	45.9
Vitebsk	84.4	82.0	91.2	81.4	79.4	83.3	85.6
Gomel	90.5	90.3	90.1	92.6	92.8	87.7	75.9
Grodno	45.0	51.5	49.2	46.2	51.6	50.6	43.2
Minsk city	16.4	15.6	13.2	10.8	11.2	10.3	10.5
Minsk	49.7	58.1	55.2	55.3	49.9	50.6	46.5
Mogilev	38.8	40.2	35.4	34.1	38.8	36.2	33.5
of which: solids							
Republic of Belarus	24.6	24.0	20.5	18.2	18.5	17.3	16.3
Regions and Minsk city:							
Brest	2.5	2.6	2.0	2.0	2.1	1.7	1.7
Vitebsk	3.7	3.9	3.4	3.0	3.0	2.9	2.7
Gomel	3.8	3.7	3.4	3.3	3.5	3.2	3.0
Grodno	4.5	4.3	4.1	3.5	3.4	3.1	2.8
Minsk city	2.2	2.0	1.6	1.4	1.4	1.3	1.4
Minsk	4.1	4.0	3.6	2.8	2.9	2.8	2.5
Mogilev	3.7	3.5	2.4	2.1	2.1	2.3	2.2
sulphur dioxide							
Republic of Belarus	40.8	41.8	48.2	40.8	39.7	38.9	39.1
Regions and Minsk city:							
Brest	0.4	0.4	0.3	0.3	0.2	0.3	0.3
Vitebsk	19.6	19.9	25.2	20.4	20.5	21.5	23.4
Gomel	18.8	18.9	20.9	18.5	17.6	15.6	14.0
Grodno	0.5	0.5	0.6	0.9	0.6	0.6	0.5
Minsk city	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Minsk	0.5	0.5	0.3	0.3	0.3	0.4	0.3
Mogilev	0.7	1.4	0.7	0.4	0.3	0.4	0.3

Continued

	2013	2014	2015	2016	2017	2018	2019
carbon monoxide							
Republic of Belarus	48.1	52.1	43.1	40.2	40.5	41.6	39.3
Regions and Minsk city:							
Brest	3.4	3.2	2.9	2.8	3.3	3.0	3.3
Vitebsk	6.6	6.5	6.2	5.2	4.9	5.3	4.9
Gomel	12.2	11.6	9.2	10.9	11.2	10.8	9.9
Grodno	5.3	6.0	6.8	4.8	5.7	6.8	6.0
Minsk city	8.2	8.7	7.1	5.7	5.5	5.5	5.6
Minsk	7.8	11.3	7.1	6.9	6.2	6.0	5.6
Mogilev	4.6	4.8	3.8	3.9	3.7	4.2	4.0
nitrogen dioxide							
Republic of Belarus	25.9	27.2	23.8	24.4	21.9	19.3	17.7
Regions and Minsk city:							
Brest	0.6	0.5	0.5	0.5	0.5	0.5	0.5
Vitebsk	3.2	3.1	3.3	3.2	2.9	2.9	3.0
Gomel	6.2	5.8	5.7	5.9	5.6	4.5	4.2
Grodno	6.3	7.7	6.6	7.4	6.0	4.4	3.8
Minsk city	0.8	0.7	0.7	0.5	0.5	0.5	0.5
Minsk	1.6	1.9	1.6	1.5	1.4	1.5	1.3
Mogilev	7.4	7.5	5.5	5.4	4.9	5.0	4.4

5.13. Air polluting emissions from stationary sources by economic activity

(thousand tonnes)

	2016	2017	2018	2019
Republic of Belarus	453.1	453.4	453.3	426.1
of which:				
Agriculture, forestry and fishing	163.2	165.3	168.6	146.9
Mining	5.0	4.6	4.7	4.2
Manufacturing	176.8	175.2	173.5	168.5
of which:				
Manufacture of food products, beverages and tobacco products	15.8	15.9	16.0	16.7
Manufacture of textile articles, wearing apparel, articles of leather and fur	3.5	3.6	3.5	1.8
Manufacture of products of wood and paper; printing and reproduction of recorded media	7.5	8.8	8.5	9.6
Manufacture of coke and refined petroleum products	84.0	83.9	84.1	83.5
Manufacture of chemicals and chemical products	13.9	13.1	14.0	13.9
Manufacture of basic pharmaceuticals and medicinal products	0.1	0.1	0.1	0.1
Manufacture of rubber and plastics products, of other non-metallic mineral products	26.5	23.5	21.7	18.7
Manufacture of basic metals; manufacture of fabricated metal products, except machinery and equipment	11.4	11.7	10.6	9.7
Manufacture of computer, electronic and optical products	0.3	0.4	0.4	0.6
Manufacture of electrical equipment	0.6	0.5	0.5	0.6
Manufacture of machinery and equipment n.e.c.	8.9	8.9	8.9	8.8
Manufacture of transport vehicles and equipment	2.1	2.7	3.1	3.1
Other manufacturing; repair and installation of machinery and equipment	2.2	2.0	2.3	1.6

Continued

	2016	2017	2018	2019
Electricity, gas, steam, hot water and air conditioning supply	67.7	61.8	62.1	63.8
Water supply; waste management and remediation activities	8.6	8.8	9.8	10.1
Construction	4.3	4.6	4.4	4.3
Wholesale and retail trade; repair of motor vehicles and motorcycles	2.5	2.2	2.9	2.2
Transportation and storage, postal and courier activities	23.0	29.2	25.5	24.8
Real estate activities	0.4	0.5	0.4	0.3
Administrative and support service activities	0.5	0.1	0.5	0.2
Public administration	0.4	0.4	0.4	0.3

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

(thousand tonnes)

	2013	2014	2015	2016	2017	2018	2019
Republic of Belarus	445.3	462.8	458.3	453.1	453.4	453.3	426.1
Brest region	39.2	51.8	50.3	51.5	50.6	53.1	54.7
Brest, city of	3.7	3.3	3.3	3.1	2.8	2.6	3.2
District:							
Baranovichy	3.4	4.8	3.0	3.5	4.0	4.1	4.8
Bereza	2.4	4.9	4.8	5.0	4.3	3.8	5.8
Brest	1.8	2.3	2.0	2.2	2.5	2.0	1.8
Gantsevichy	0.2	0.7	0.6	0.6	0.8	1.3	0.7
Drogichin	2.7	2.5	2.7	2.7	1.0	1.4	1.5
Zhabinka	2.6	3.0	3.4	3.2	3.9	3.7	4.0
Ivanovo	3.2	3.3	2.8	2.8	3.0	2.6	2.9
Ivatsevichy	2.4	3.1	2.6	2.3	2.4	1.9	1.9
Kamenets	2.9	3.9	4.0	4.3	5.3	4.9	4.2
Kobrin	1.7	3.1	3.4	2.8	3.4	3.3	4.4
Luninets	3.6	3.3	2.9	3.3	3.2	2.8	1.9
Lyakhovichy	1.4	2.2	2.7	2.2	2.6	2.8	2.3
Malorita	1.1	1.6	1.9	1.8	0.6	1.5	1.3
Pinsk	3.9	3.9	4.9	6.2	4.7	6.3	5.5
Pruzhany	1.5	4.0	3.9	3.9	3.6	4.6	5.9
Stolin	0.5	1.8	1.5	1.6	2.8	3.4	2.4

Continued

	2013	2014	2015	2016	2017	2018	2019
Vitebsk region	105.8	102.5	112.0	107.9	102.3	107.5	109.3
Vitebsk, city of	3.8	3.6	3.5	3.1	3.1	3.5	3.1
District:							
Beshenkovichy	0.5	0.5	0.6	0.5	0.6	0.7	0.7
Braslav	2.3	1.6	2.0	1.5	1.1	1.3	1.5
Verkhnedvinsk	1.6	2.1	2.5	2.3	2.4	1.7	1.5
Vitebsk	4.1	3.9	3.2	3.1	3.3	1.6	2.8
Glubokoye	2.4	2.1	3.3	3.4	3.2	3.2	3.0
Gorodok	1.5	1.7	1.6	1.8	1.1	1.0	1.6
Dokshitsy	1.1	1.3	1.5	0.9	0.9	1.0	0.7
Dubrovno	1.8	1.8	1.9	1.7	1.8	2.1	1.8
Lepel	1.4	1.3	1.3	1.7	1.4	1.1	1.0
Liozno	1.2	1.5	1.9	1.8	1.4	1.6	2.2
Miory	1.7	1.6	2.3	2.2	1.8	1.9	1.9
Orsha	8.0	7.5	8.7	8.2	7.4	9.0	7.3
Polotsk	57.5	56.1	61.3	55.0	55.2	57.8	62.1
Postavy	1.3	1.3	1.4	1.3	1.2	1.6	1.7
Rossony	0.5	0.5	0.7	0.7	0.4	0.5	0.3
Senno	0.9	1.0	1.0	0.9	0.4	0.7	0.7
Tolochin	1.6	1.6	1.3	1.7	1.9	1.8	1.2
Ushachy	0.8	0.8	0.8	0.8	0.8	0.7	0.5
Chashniki	9.5	8.4	9.0	13.4	10.8	12.6	12.5
Sharkovshchina	0.3	0.7	0.7	0.7	0.6	0.8	0.4
Shumilino	2.1	1.9	1.5	1.3	1.5	1.5	0.6

Continued

	2013	2014	2015	2016	2017	2018	2019
Gomel region	102.7	101.6	99.6	104.6	105.6	100.4	87.1
Gomel, city of	7.2	8.6	7.1	8.9	8.6	6.8	7.2
District:							
Bragin	0.8	0.9	0.1	0.2	0.6	0.7	0.1
Buda-Koshelyovo	3.3	3.6	4.0	3.2	3.8	3.9	2.6
Vetka	1.6	1.8	1.6	2.4	2.2	2.0	2.0
Gomel	7.0	5.4	5.2	5.2	5.1	5.0	4.8
Dobrush	2.0	2.1	2.1	3.2	2.6	2.6	2.1
Yelsk	0.2	0.8	0.2	1.0	0.9	1.4	1.6
Zhitkovichy	1.8	2.5	2.2	2.3	2.6	2.3	1.7
Zhlobin	12.5	11.5	10.9	13.5	14.7	13.6	12.6
Kalinkovichy	1.8	1.9	2.1	2.8	2.8	2.6	2.5
Korma	1.7	1.6	1.4	1.8	1.8	1.7	0.7
Lelchitsy	0.2	1.8	1.8	1.3	1.8	1.8	1.2
Loyev	0.9	0.9	0.7	0.1	0.2	0.6	0.2
Mozyr	38.4	38.2	40.8	38.2	37.6	33.7	29.6
Narovlya	0.5	0.4	0.3	0.3	0.3	0.3	0.3
Oktyabrsky	1.0	1.3	1.5	1.7	1.6	1.2	0.8
Petrikov	1.7	1.3	1.9	2.0	2.9	2.2	2.0
Rechitsa	8.5	6.0	5.8	6.4	6.3	6.9	5.3
Rogachev	3.6	3.7	3.4	3.8	3.2	4.2	2.3
Svetlogorsk	5.6	5.0	4.3	3.7	3.3	4.1	5.5
Khoyniki	1.3	0.8	1.1	1.5	1.6	1.7	1.0
Chechersk	1.3	1.3	1.3	1.2	1.2	1.5	0.8

Continued

	2013	2014	2015	2016	2017	2018	2019
Grodno region	53.2	58.8	56.5	53.8	60.3	58.8	50.4
Grodno, city of	10.6	10.0	9.7	9.6	9.4	9.8	8.5
District:							
Berestovitsa	0.8	1.2	1.7	2.0	2.1	1.6	2.1
Volkovysk	10.2	10.9	10.6	11.4	9.4	7.8	6.3
Voronovo	1.8	1.4	1.8	1.4	2.1	2.0	1.6
Grodno	5.1	6.9	6.7	5.8	6.7	6.8	5.2
Dyatlovo	0.4	0.5	1.0	1.1	1.7	1.6	1.1
Zelva	0.5	1.1	0.4	1.2	1.7	2.5	1.5
Ivye	0.6	0.6	0.6	0.7	1.3	1.3	0.8
Korelichy	1.9	2.0	2.1	2.0	2.0	1.6	2.0
Lida	5.1	5.1	3.8	3.6	4.5	4.6	3.2
Mosty	1.7	2.4	1.2	1.2	1.6	0.9	1.3
Novogrudok	1.1	1.2	1.5	1.8	1.9	1.9	1.8
Ostrovets	0.3	0.4	0.8	0.4	0.5	0.4	0.3
Oshmyany	0.8	0.9	0.4	0.4	1.1	1.0	0.7
Svisloch	1.3	1.3	1.4	1.5	1.3	1.3	1.4
Slonim	5.0	5.9	5.6	3.2	5.8	6.2	5.2
Smorgon	2.7	3.6	4.2	3.2	3.0	3.6	5.1
Shchuchin	3.4	3.5	3.1	3.3	4.2	4.0	2.3

Continued

	2013	2014	2015	2016	2017	2018	2019
Minsk city	25.1	23.5	20.3	18.1	18.3	18.3	18.6
Minsk region	71.0	74.5	75.9	74.9	68.6	70.6	64.3
District:							
Berezino	2.5	1.9	2.1	0.9	0.8	1.8	1.0
Borisov	4.3	4.7	4.0	4.4	4.2	6.4	4.5
Vileyka	2.6	1.5	1.4	1.1	1.3	1.4	1.2
Volozhin	0.9	1.1	1.4	1.4	1.1	1.2	2.8
Dzerzhinsk	2.3	1.6	1.6	2.3	1.8	2.2	2.1
Kletsk	2.1	3.0	3.3	3.0	2.2	2.9	2.7
Kopyl	1.3	2.0	2.4	2.4	2.1	1.6	1.7
Krupki	3.3	3.2	2.5	2.2	3.0	1.9	1.5
Logoysk	1.9	1.6	2.0	1.9	1.4	1.9	1.2
Lyuban	2.1	4.9	4.5	4.0	4.7	4.0	3.3
Minsk	9.8	9.9	9.2	10.7	10.7	8.6	7.8
Molodechno	2.6	2.8	3.0	2.6	2.3	2.7	2.5
Myadel	0.7	0.6	0.9	1.2	1.0	1.0	0.9
Nesvizh	8.6	9.1	9.4	9.3	7.1	8.5	8.3
Pukhovichy	3.4	4.4	4.9	4.2	4.0	3.4	3.5
Slutsk	4.9	5.4	5.6	5.6	5.7	5.4	5.2
Smolevichy	3.8	3.4	3.1	4.1	3.9	3.5	4.0
Soligorsk	7.5	7.3	6.9	6.3	5.0	5.3	4.1
Staryie Dorogi	1.7	1.7	1.9	1.7	1.7	1.3	1.7
Stolbtsy	3.0	2.7	2.7	2.6	2.6	2.2	2.1
Uzda	0.7	0.8	1.7	1.7	1.1	1.8	1.3
Cherven	0.8	0.9	1.3	1.3	0.9	1.6	1.0

Continued

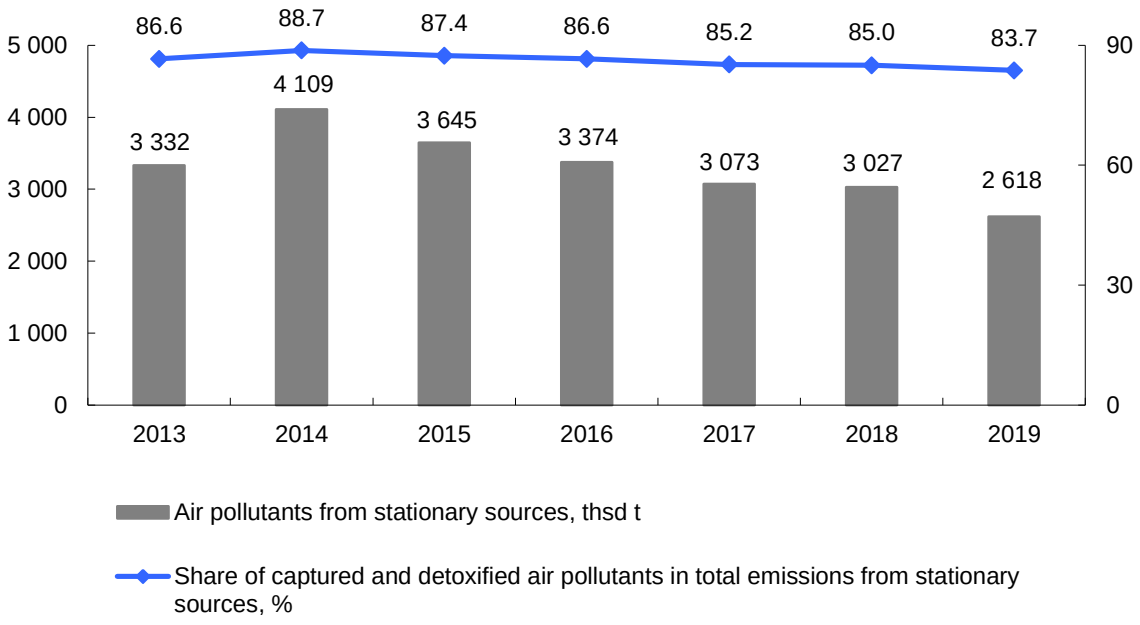
	2013	2014	2015	2016	2017	2018	2019
Mogilev region	48.2	50.1	43.8	42.2	47.7	44.6	41.6
Mogilev, city of	6.5	5.6	6.4	5.9	4.7	5.7	6.0
District:							
Belynichy	0.7	1.2	2.1	1.3	1.5	0.8	1.1
Bobruysk	6.5	5.7	4.9	4.4	4.1	3.5	3.8
Bykhov	1.2	1.1	0.8	1.2	1.3	0.9	1.5
Glusk	0.4	0.7	0.9	0.4	0.2	0.4	0.2
Gorki	0.7	1.2	1.4	1.2	1.4	1.5	1.5
Dribin	0.6	0.6	0.5	0.8	0.5	0.8	0.6
Kirovsk	1.5	1.5	0.3	2.0	1.7	2.3	1.8
Klimovichy	0.6	0.6	0.8	0.9	0.6	1.1	1.9
Klichev	1.6	1.6	1.6	1.5	1.7	1.6	1.3
Kostyukovichy	5.5	6.3	5.5	5.0	4.4	4.9	4.2
Krasnopolye	0.9	0.9	0.0	0.0	0.1	0.0	0.0
Krichev	6.8	7.6	4.6	4.3	4.4	4.2	3.7
Krugloye	0.4	0.5	0.5	0.4	0.6	0.6	0.8
Mogilev	2.6	3.1	1.7	1.4	3.5	2.6	1.7
Mstislavl	0.4	0.4	0.6	0.5	1.1	0.7	0.1
Osipovichy	5.9	5.1	4.9	5.1	8.7	6.3	5.6
Slavgorod	0.5	0.4	0.0	0.2	0.4	0.9	0.5
Khotimsk	0.2	0.2	0.0	0.1	0.2	0.2	0.1
Chausy	0.4	0.5	0.2	0.3	0.3	0.2	0.2
Cherikov	0.5	0.5	1.1	0.3	0.3	0.0	0.3
Shklov	3.9	4.7	5.1	5.3	5.9	5.4	5.0

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

(thousand tonnes)

	2013	2014	2015	2016	2017	2018	2019
Republic of Belarus	3 332.0	4 108.5	3 645.4	3 374.4	3 072.6	3 027.4	2 617.5
Regions and Minsk city:							
Brest	123.8	153.9	129.2	139.8	148.0	146.9	143.4
Vitebsk	222.2	214.5	222.3	204.5	204.2	214.5	210.3
Gomel	321.1	332.1	311.1	332.4	328.8	389.9	379.3
Grodno	708.6	831.4	631.1	608.1	386.1	369.4	308.8
Minsk city	86.5	76.2	139.7	106.2	85.9	74.7	76.2
Minsk	1 069.2	1 514.6	1 442.0	1 448.7	1 462.2	1 362.4	1 080.1
Mogilev	800.4	985.9	770.1	534.8	457.4	469.6	419.4

5.16. Air pollutants from stationary sources



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

	2013	2014	2015	2016	2017	2018	2019
			Thousand tonnes				
Republic of Belarus	2 886.7	3 645.7	3 187.1	2 921.4	2 619.2	2 574.1	2 191.5
Regions and Minsk city:							
Brest	84.6	102.1	78.9	88.3	97.3	93.8	88.7
Vitebsk	116.4	112.0	110.3	96.5	102.0	106.9	101.1
Gomel	218.4	230.5	211.4	227.8	223.2	289.5	292.2
Grodno	655.4	772.6	574.6	554.2	325.8	310.6	258.3
Minsk city	61.4	52.7	119.4	88.1	67.6	56.5	57.6
Minsk	998.3	1 440.1	1 366.1	1 373.8	1 393.5	1 291.8	1 015.8
Mogilev	752.2	935.8	726.3	492.6	409.7	425.0	377.8
			As % of total air pollutants from stationary sources				
Republic of Belarus	86.6	88.7	87.4	86.6	85.2	85.0	83.7
Regions and Minsk city:							
Brest	68.3	66.3	61.1	63.1	65.8	63.8	61.9
Vitebsk	52.4	52.2	49.6	47.2	49.9	49.9	48.0
Gomel	68.0	69.4	68.0	68.5	67.9	74.3	77.0
Grodno	92.5	92.9	91.0	91.2	84.4	84.1	83.7
Minsk city	71.0	69.2	85.5	83.0	78.7	75.6	75.6
Minsk	93.4	95.1	94.7	94.8	95.3	94.8	94.0
Mogilev	94.0	94.9	94.3	92.1	89.6	90.5	90.1

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

(thousand tonnes)

	2013	2014	2015	2016	2017	2018	2019
Republic of Belarus	2 886.7	3 645.7	3 187.1	2 921.4	2 619.2	2 574.1	2 191.5
Brest region	84.6	102.1	78.9	88.3	97.3	93.8	88.7
Brest, city of	1.7	1.5	2.7	3.3	2.0	9.6	11.6
District:							
Baranovichy	11.9	11.6	9.7	9.9	8.7	4.4	5.7
Bereza	1.2	10.7	4.5	2.9	3.0	1.5	2.2
Brest	0.0	0.2	0.1	0.1	0.2	0.2	0.2
Gantsevichy	0.0	0.1	0.1	0.1	0.1	0.1	0.0
Drogichin	0.6	1.0	0.6	0.6	0.3	0.3	0.4
Zhabinka	1.4	1.9	1.4	1.0	1.2	1.6	1.7
Ivanovo	2.1	1.6	1.0	1.0	1.1	1.1	1.3
Ivatsevichy	17.0	24.2	15.3	13.2	13.4	15.0	15.5
Kamenets	1.9	2.5	2.8	1.5	2.3	0.8	0.6
Kobrin	0.4	2.3	0.7	0.4	0.4	0.2	0.3
Luninets	1.9	6.3	5.6	7.5	7.5	5.7	4.0
Lyakhovichy	33.2	25.3	21.5	31.8	36.3	42.8	35.3
Malorita	1.2	1.2	1.5	1.4	1.4	0.6	0.5
Pinsk	7.8	10.5	10.4	12.7	12.8	8.9	8.5
Pruzhany	1.5	0.7	0.7	0.6	6.1	0.4	0.5
Stolin	0.8	0.5	0.4	0.3	0.5	0.7	0.5

Continued

	2013	2014	2015	2016	2017	2018	2019
Vitebsk region	116.4	112.0	110.3	96.5	102.0	106.9	101.1
Vitebsk, city of	54.8	54.7	56.0	53.3	53.3	54.3	48.5
District:							
Beshenkovichy	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Braslav	0.6	0.5	0.5	0.5	0.4	0.4	0.4
Verkhnedvinsk	1.2	0.7	1.7	0.2	1.8	0.5	0.5
Vitebsk	0.5	2.1	0.0	0.0	0.1	0.1	0.2
Glubokoye	7.3	7.5	5.9	0.8	0.3	6.7	6.4
Gorodok	0.2	0.4	0.1	0.1	0.1	0.2	0.4
Dokshitsy	0.2	0.3	0.3	0.3	0.2	0.3	0.2
Dubrovno	0.2	0.2	0.2	0.2	1.1	0.2	0.2
Lepel	1.0	0.8	0.6	0.3	0.3	0.3	0.3
Liozno	0.5	0.9	2.3	1.6	1.2	1.2	1.6
Miory	0.5	0.3	0.6	0.6	0.1	0.4	0.4
Orsha	10.7	10.6	7.9	8.9	6.8	5.8	4.7
Polotsk	16.8	16.8	22.1	19.8	21.6	21.4	22.3
Postavy	3.9	4.4	3.7	3.0	3.0	3.1	3.4
Rossony	0.4	0.3	0.2	0.1	–	–	–
Senno	0.0	0.2	0.3	0.1	0.0	0.3	0.3
Tolochin	3.7	1.1	1.6	0.7	3.8	0.1	0.1
Ushachy	0.3	0.1	0.1	0.1	0.1	0.2	0.1
Chashniki	13.1	9.7	5.8	5.6	7.7	11.0	10.8
Sharkovshchina	0.2	0.1	0.0	0.0	–	0.1	0.1
Shumilino	0.4	0.2	0.4	0.3	0.1	0.3	0.1

Continued

	2013	2014	2015	2016	2017	2018	2019
Gomel region	218.4	230.5	211.4	227.8	223.2	289.5	292.2
Gomel, city of	98.2	90.9	85.5	95.0	95.1	97.2	103.4
District:							
Bragin	–	0.0	0.0	0.0	0.0	0.0	0.0
Buda-Koshelyovo	1.1	1.4	1.0	1.0	0.6	0.9	0.6
Vetka	1.1	0.4	0.6	0.5	0.4	0.2	0.2
Gomel	5.5	0.1	0.2	0.2	0.2	0.2	0.2
Dobrush	0.4	0.7	0.6	0.0	0.6	0.6	0.5
Yelsk	0.2	0.1	0.1	0.1	0.1	0.0	0.0
Zhitkovichy	7.6	5.3	0.8	4.1	4.8	4.3	3.3
Zhlobin	31.9	34.2	39.6	40.8	38.6	45.5	42.0
Kalinkovichy	2.9	2.6	0.3	2.7	2.3	2.1	2.1
Korma	0.3	0.3	1.0	0.6	0.6	1.0	0.4
Lelchitsy	0.2	0.5	0.4	0.2	0.2	0.3	0.2
Loyev	0.0	0.0	0.0	–	–	0.6	0.3
Mozyr	49.4	64.3	64.3	63.3	62.2	71.9	63.3
Oktyabrsky	0.2	0.1	0.3	0.2	0.2	0.2	0.2
Petrikov	0.5	0.6	0.4	0.2	0.3	0.2	0.2
Rechitsa	2.8	13.3	3.7	16.0	15.9	17.4	13.4
Rogachev	1.5	0.6	1.7	1.0	0.4	0.2	0.1
Svetlogorsk	13.1	14.5	11.0	1.8	0.6	45.3	61.0
Khoyniki	1.5	0.3	0.1	0.2	0.2	1.3	0.8
Chechersk	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Continued

	2013	2014	2015	2016	2017	2018	2019
Grodno region	655.4	772.6	574.6	554.2	325.8	310.6	258.3
Grodno, city of	66.4	70.5	60.6	38.8	37.4	44.1	38.6
District:							
Berestovitsa	0.4	0.2	0.2	0.0	0.0	0.0	0.0
Volkovysk	517.8	628.9	458.0	461.3	210.9	191.7	153.7
Voronovo	0.3	0.3	0.2	0.2	0.2	0.2	0.2
Grodno	8.9	7.6	5.2	2.0	7.1	7.4	5.7
Dyatlovo	1.7	1.6	1.6	0.1	0.2	0.2	0.1
Zelva	0.2	0.2	0.3	0.1	0.1	0.2	0.1
Ivye	0.3	0.2	0.1	0.1	0.3	0.5	0.3
Korelichy	0.4	0.4	0.4	0.3	2.2	0.2	0.3
Lida	38.6	33.8	22.9	28.3	35.6	39.8	27.8
Mosty	1.5	7.8	4.8	5.4	14.2	7.5	11.0
Novogrudok	1.2	1.1	1.2	0.2	0.6	0.6	0.6
Ostrovets	0.0	0.0	0.2	0.6	0.7	0.6	0.4
Oshmyany	11.9	10.1	8.8	6.1	5.3	5.4	4.1
Svisloch	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Slonim	3.2	3.1	3.3	3.0	3.1	2.9	2.5
Smorgon	2.8	6.6	6.8	7.6	7.8	9.0	12.9
Shchuchin	0.2	0.2	0.1	0.1	0.1	0.1	0.1

Continued

	2013	2014	2015	2016	2017	2018	2019
Minsk city	61.4	52.7	119.4	88.1	67.6	56.5	57.6
Minsk region	998.3	1 440.1	1 366.1	1 373.8	1 393.5	1 291.8	1 015.8
District:							
Berezino	0.9	0.5	5.5	15.3	0.4	28.1	15.8
Borisov	7.6	9.5	9.6	1.7	2.7	8.1	5.7
Vileyka	2.6	2.5	2.0	1.6	0.2	1.8	1.5
Volozhin	0.6	0.8	0.8	0.1	0.2	3.4	7.8
Dzerzhinsk	3.0	5.3	2.9	2.9	5.0	3.1	3.0
Kletsk	0.9	1.2	–	–	–	–	–
Kopyl	0.0	0.1	0.1	0.1	0.1	0.0	0.0
Krupki	2.3	3.6	2.2	1.8	2.2	2.8	2.2
Logoysk	0.8	1.0	0.2	0.4	0.4	0.0	0.0
Lyuban	75.6	123.4	102.7	85.2	107.5	120.2	99.8
Minsk	2.5	2.8	13.2	14.8	13.9	3.7	3.3
Molodechno	11.1	10.4	8.4	8.7	13.5	13.5	12.4
Myadel	0.0	0.1	0.1	0.1	0.1	0.2	0.2
Nesvizh	1.3	1.1	0.9	1.0	2.4	2.3	2.3
Pukhovichy	3.0	4.8	15.0	4.7	1.4	0.4	0.4
Slutsk	8.0	5.5	4.1	2.5	4.3	4.2	4.0
Smolevichy	5.7	4.9	8.9	19.2	21.6	22.7	27.9
Soligorsk	869.5	1 260.0	1 187.3	1 209.5	1 215.8	1 073.1	825.8
Staryie Dorogi	0.2	0.4	0.3	0.2	0.3	0.3	0.4
Stolbtsy	1.7	1.0	1.0	3.2	0.7	2.6	2.4
Uzda	0.2	0.2	0.0	0.0	0.0	0.0	0.0
Cherven	0.7	1.2	1.0	0.6	1.1	1.1	0.7

Continued

	2013	2014	2015	2016	2017	2018	2019
Mogilev region	752.2	935.8	726.3	492.6	409.7	425.0	377.8
Mogilev, city of	14.8	8.8	19.9	25.1	8.2	10.6	11.3
District:							
Belynichy	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Bobruysk	4.9	3.1	3.5	2.1	2.7	3.5	4.1
Bykhov	2.0	2.0	0.4	1.7	1.5	1.6	2.7
Glusk	0.0	0.0	–	–	–	–	–
Gorki	0.3	0.7	0.4	0.3	0.4	0.4	0.4
Dribin	0.1	0.1	–	0.1	–	–	–
Kirovsk	0.2	0.3	1.5	0.3	0.0	0.0	0.0
Klimovichy	10.9	11.0	10.9	11.3	11.2	11.0	19.3
Klichev	0.0	0.0	–	0.0	0.0	0.0	0.0
Kostyukovichy	513.9	513.0	494.9	276.8	197.1	198.7	168.7
Krasnopolye	0.0	0.0	–	–	0.0	0.0	0.0
Krichev	202.4	395.1	193.2	173.2	174.7	179.4	157.8
Krugloye	0.0	0.0	–	–	0.0	0.0	0.0
Mogilev	0.8	0.2	0.1	0.7	11.3	17.8	11.9
Mstislavl	0.1	0.1	0.0	0.2	0.0	0.0	0.0
Osipovichy	1.1	1.1	0.9	0.9	1.5	1.0	0.9
Slavgorod	0.0	0.1	0.0	0.0	–	–	–
Khotimsk	0.0	0.0	–	0.0	0.3	0.3	0.2
Chausy	0.0	0.0	–	–	0.3	–	–
Cherikov	0.0	0.0	0.0	0.0	–	–	–
Shklov	0.3	0.1	0.3	0.3	0.4	0.4	0.4

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

	2013	2014	2015	2016	2017	2018	2019
				Thousand tonnes			
Republic of Belarus	2 639.8	3 386.0	2 850.8	2 553.9	2 294.2	2 159.1	1 802.4
Regions and Minsk city:							
Brest	70.3	84.3	63.2	68.6	65.6	61.5	54.4
Vitebsk	91.9	88.1	76.3	73.6	75.8	75.4	66.5
Gomel	124.6	128.4	116.7	72.2	97.3	145.3	161.8
Grodno	628.4	744.0	547.6	531.1	315.7	267.6	220.9
Minsk city	21.1	8.8	12.2	15.3	14.1	11.7	12.0
Minsk	969.5	1 407.8	1 317.7	1 313.8	1 330.1	1 205.3	939.4
Mogilev	734.1	924.6	717.1	479.2	395.7	392.3	347.4
				As % of total pollutants captured and detoxified			
Republic of Belarus	91.4	92.9	89.5	87.4	87.6	83.9	82.2
Regions and Minsk city:							
Brest	83.0	82.6	80.0	77.7	67.4	65.6	61.3
Vitebsk	79.0	78.7	69.2	76.2	74.3	70.5	65.8
Gomel	57.0	55.7	55.2	31.7	43.6	50.2	55.4
Grodno	95.9	96.3	95.3	95.8	96.9	86.2	85.5
Minsk city	34.4	16.6	10.2	17.4	20.9	20.8	20.8
Minsk	97.1	97.8	96.5	95.6	95.4	93.3	92.5
Mogilev	97.6	98.8	98.7	97.3	96.6	92.3	92.0

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

	2013	2014	2015	2016	2017	2018	2019
Total							
Republic of Belarus	136 425	132 282	133 012	135 987	137 484	137 213	135 608
Regions and Minsk city:							
Brest	19 331	18 366	16 408	20 234	20 492	20 843	20 172
Vitebsk	15 789	15 762	16 801	16 641	15 376	15 720	15 740
Gomel	19 962	18 548	19 673	21 457	22 812	22 897	22 918
Grodno	22 148	22 408	22 180	19 471	22 510	22 443	22 166
Minsk city	13 980	13 605	13 702	14 660	14 252	11 126	10 457
Minsk	27 281	26 808	26 924	25 967	25 808	26 694	26 622
Mogilev	17 934	16 785	17 324	17 557	16 234	17 490	17 533
of which organised sources of emission							
Republic of Belarus	114 976	110 270	107 272	108 900	110 426	110 381	108 962
Regions and Minsk city:							
Brest	15 971	15 486	12 643	16 229	16 696	16 867	16 450
Vitebsk	12 931	12 748	13 184	12 435	11 570	12 003	12 003
Gomel	16 880	15 818	16 269	17 463	18 521	18 367	18 367
Grodno	17 337	17 312	16 956	14 454	16 596	16 647	16 332
Minsk city	13 494	13 071	12 599	13 458	13 164	10 658	10 026
Minsk	23 002	21 319	21 162	20 174	20 876	21 454	21 399
Mogilev	15 361	14 516	14 459	14 687	13 003	14 385	14 385

Continued

	2013	2014	2015	2016	2017	2018	2019
of which equipped with gas treatment plants							
Republic of Belarus	13 786	14 023	13 641	13 148	12 852	12 767	12 399
Regions and Minsk city:							
Brest	1 576	1 585	1 655	1 725	1 473	1 603	1 479
Vitebsk	1 557	1 584	1 518	1 408	1 380	1 278	1 282
Gomel	2 781	2 941	2 667	2 670	2 766	2 564	2 576
Grodno	1 468	1 603	1 623	1 424	1 595	1 568	1 563
Minsk city	2 201	2 139	2 101	2 145	1 998	1 757	1 493
Minsk	2 051	2 001	2 025	1 805	1 855	2 094	2 090
Mogilev	2 152	2 170	2 052	1 971	1 785	1 903	1 916
As % of total organised sources of emission							
Republic of Belarus	12.0	12.7	12.7	12.1	11.6	11.6	11.4
Regions and Minsk city:							
Brest	9.9	10.2	13.1	10.6	8.8	9.5	9.0
Vitebsk	12.0	12.4	11.5	11.3	11.9	10.6	10.7
Gomel	16.5	18.6	16.4	15.3	14.9	14.0	14.0
Grodno	8.5	9.3	9.6	9.9	9.6	9.4	9.6
Minsk city	16.3	16.4	16.7	15.9	15.2	16.5	14.9
Minsk	8.9	9.4	9.6	8.9	8.9	9.8	9.8
Mogilev	14.0	14.9	14.2	13.4	13.7	13.2	13.3

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

City, pollutant monitored	Maximum single allowable concentration, microgrammes per m^3	Number of days with prescribed maximum single allowable concentration exceeded						
		2013	2014	2015	2016	2017	2018	2019
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	1	1	0	0	0	0	0
Phenol	10	0	2	0	0	0	0	0
Brest								
Solid particles	300	0	1	0	1	0	0	0
Sulphur dioxide	500	0	…	…	0	0	0	0
Carbon monoxide	5 000	0	1	4	0	0	0	0
Nitrogen dioxide	250	3	14	1	2	3	9	13
Vitebsk								
Solid particles	300	0	0	0	0	0	2	11
Sulphur dioxide	500	…	…	…	…	…	0	0
Carbon monoxide	5 000	0	0	0	0	0	0	1
Nitrogen dioxide	250	0	0	0	2	0	2	2
Phenol	10	0	0	0	0	…	…	0
Ammonia	200	0	0	2	1	1	0	0
Gomel								
Solid particles	300	1	10	4	0	1	6	0
Carbon monoxide	5 000	…	…	…	35	40	16	20
Nitrogen dioxide	250	0	1	0	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						
		2013	2014	2015	2016	2017	2018	2019
Grodno								
Solid particles	300	0	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	1	0	0
Ammonia	200	0	0	0	0	0	0	0
Minsk city								
Solid particles	300	1	3	0	9	1	10	6
Sulphur dioxide	500	0	0	0	0	0	0	0
Carbon monoxide	5 000	0	1	0	6	3	2	8
Nitrogen dioxide	250	9	2	1	5	18	15	11
Phenol	10	0	0	0	0	0	0	0
Ammonia	200	2	0	0	0	0	1	0
Mogilev								
Solid particles	300	0	0	0	0	0	0	0
Sulphur dioxide	500	0	…	0	…	…	…	0
Carbon monoxide	5 000	1	0	0	1	0	0	2
Nitrogen dioxide	250	33	2	22	3	2	18	15
Phenol	10	32	72	42	33	15	5	4
Hydrogen sulphide	8	0	0	1	0	0	0	0
Methyl alcohol	1 000	1	0	0	0	0	0	0
Ammonia	200	2	9	21	16	1	14	11
Orsha								
Solid particles	300	0	0	0	0	0	0	0
Carbon monoxide	5 000	0	0	0	1	0	0	0
Nitrogen dioxide	250	0	0	0	1	0	0	4

Continued

City, pollutant monitored	Maximum single allowable concentration, microgrammes per m^3	Number of days with prescribed maximum single allowable concentration exceeded						
		2013	2014	2015	2016	2017	2018	2019
Novopolotsk								
Solid particles	300	0	3	10	8	4	3	12
Sulphur dioxide	500	16	15	35	13	19	15	15
Carbon monoxide	5 000	0	0	0	0	0	0	0
Nitrogen dioxide	250	11	15	17	5	1	1	7
Phenol	10	2	3	5	7	6	4	2
Hydrogen sulphide	8	0	0	0	0	0	0	0
Ammonia	200	0	0	0	0	0	0	0
Pinsk								
Solid particles	300	0	12	7	2	2	2	2
Carbon monoxide	5 000	0	0	0	0	0	0	0
Nitrogen dioxide	250	0	1	0	0	0	0	1
Polotsk								
Solid particles	300	2	3	9	5	5	10	4
Sulphur dioxide	500	8	12	…	…	0	0	0
Carbon monoxide	5 000	0	0	0	1	1	0	0
Nitrogen dioxide	250	10	6	3	1	1	0	5
Phenol	10	1	1	2	1	3	0	0
Ammonia	200	1	0	0	0	0	0	0
Hydrogen sulphide	8	0	0	0	0	0	0	0
Svetlogorsk								
Solid particles	300	0	2	1	0	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	2013	2014	2015	2016	2017	2018	2019
Bobruysk							
Solid particles	<15	<15	<15	<15	<15	<15	<15
Carbon monoxide	769	879	1 129	1 263	1 507	1 467	1 427
Nitrogen dioxide	33	37	46	49	45	52	63
Phenol	1.3	3.0	3.1	3.2	3.1	2.8	3.6
Brest							
Solid particles	33	35	35	43	48	44	71
Sulphur dioxide	19	…	…	21	12	26	38
Carbon monoxide	913	938	924	859	904	730	1 345
Nitrogen dioxide	34	39	36	24	28	34	45
Vitebsk							
Solid particles	113	52	42	37	<15	<15	<15
Sulphur dioxide	…	…	…	…	31	23	24
Carbon monoxide	517	530	519	586	696	690	548
Nitrogen dioxide	32	41	37	38	43	35	34
Phenol	1.4	1.6	1.2	0.4	…	…	0.2
Ammonia	29	28	29	13	17	13	17
Gomel							
Solid particles	29	33	37	31	31	18	31
Carbon monoxide	452	500	530	588	549	589	576
Nitrogen dioxide	17	26	27	27	39	24	19
Phenol	0.6	0.9	0.9	1.1	0.7	0.5	0.2
Ammonia	12	11	14	18	24	16	16

Continued

City, pollutant monitored	2013	2014	2015	2016	2017	2018	2019
Grodno							
Solid particles	26	31	26	<15	<15	<15	<15
Sulphur dioxide	9	15	26	…	26	…	44
Carbon monoxide	664	509	567	417	348	337	364
Nitrogen dioxide	17	26	30	25	27	28	24
Ammonia	15	19	14	15	16	15	19
Minsk city							
Solid particles	<15	21	25	<15	<15	<15	<15
Sulphur dioxide	4	8	15	15	17	22	41
Carbon monoxide	499	470	430	401	413	477	410
Nitrogen dioxide	39	37	35	32	30	30	29
Phenol	0.3	0.6	0.5	0.6	0.5	0.5	0.2
Ammonia	14	11	8	7	6	5	4
Mogilev							
Solid particles	27	<15	<15	<15	<15	<15	<15
Sulphur dioxide	24	…	43	…	…	…	56
Carbon monoxide	661	495	479	483	429	382	362
Nitrogen dioxide	49	51	57	41	41	47	47
Phenol	1.8	1.7	1.7	1.4	1.2	0.7	0.7
Carbon bisulphide	6	4	1.2	0.8	1.1	2.4	1.3
Methyl alcohol	108	68	117	68	48	39	33
Novopolotsk							
Solid particles	<15	<15	<15	21	19	16	<15
Sulphur dioxide	24	32	64	50	47	80	52
Carbon monoxide	577	916	602	604	569	467	435
Nitrogen dioxide	54	46	34	28	30	22	15
Phenol	1.0	1.2	1.3	2.5	2.3	1.1	0.8
Ammonia	8	11	15	13	13	22	22
Hydrogen sulphide	1.2	1.1	0.8	0.9	1.1	0.7	0.6

Continued

City, pollutant monitored	2013	2014	2015	2016	2017	2018	2019
Orsha							
Solid particles	<15	<15	<15	<15	<15	<15	<15
Carbon monoxide	781	1 100	1 058	1 090	1 106	1 057	1 061
Nitrogen dioxide	21	23	28	29	27	26	30
Pinsk							
Solid particles	20	43	67	30	<15	<15	<15
Carbon monoxide	515	517	584	577	683	1 124	1 089
Nitrogen dioxide	49	22	26	28	24	22	26
Polotsk							
Solid particles	<15	<15	<15	27	24	29	18
Sulphur dioxide	67	46	…	…	39	49	48
Carbon monoxide	797	1 256	957	646	535	405	445
Nitrogen dioxide	59	58	42	26	32	25	23
Phenol	1.0	1.3	1.2	2.4	2.2	1.1	0.8
Ammonia	15	12	17	13	13	22	22
Hydrogen sulphide	1.2	1.0	0.6	0.9	1.2	0.6	0.5
Hydrogen fluoride	0.5	0.8	1.2	0.8	1.2	0.7	0.7
Svetlogorsk							
Solid particles	22	50	45	30	31	40	30
Carbon monoxide	705	751	637	397	538	665	536
Nitrogen dioxide	53	32	31	31	37	36	45

[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)]

	2013	2014	2015	2016	2017	2018	2019
Total, metric tonnes	140.9	115.1	63.3	51.5	41.2	20.1	13.3
Total, metric tonnes in terms of ozone-depleting potential	7.2	5.8	4.5	3.5	2.6	1.5	0.7
Assigned for Belarus maximum amount of consumption, metric tonnes in terms of ozone-depleting potential	12.7	12.7	5.1	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)]

	2013	2014	2015	2016	2017	2018	2019
Number of tested air samples – total, thousand							
Republic of Belarus	67.2	78.3	78.2	81.9	73.3	101.5	124.2
Regions and Minsk city:							
Brest	2.6	4.8	5.2	6.5	3.7	8.5	24.2
Vitebsk	0.6	0.6	0.5	0.5	0.4	0.7	1.1
Gomel	21.0	21.4	23.8	23.0	23.1	32.9	37.0
Grodno	3.6	4.7	5.1	6.5	3.8	4.3	6.3
Minsk city	18.5	21.1	20.4	24.5	23.0	26.3	25.2
Minsk	6.9	8.9	7.3	6.6	6.6	10.9	9.7
Mogilev	14.0	16.8	15.9	14.2	12.8	18.0	20.7

Continued

	2013	2014	2015	2016	2017	2018	2019
	of which air samples with maximum single allowable concentration exceeded, thousand						
Republic of Belarus	0.5	0.7	0.6	0.3	0.1	0.3	0.2
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	0.1	0.0	0.0	0.1	0.1
Grodno	0.0	0.0	0.0	0.0	–	–	–
Minsk city	0.4	0.5	0.5	0.2	0.1	0.1	0.0
Minsk	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Mogilev	0.0	0.1	0.0	0.0	–	0.0	0.1
	As % of total air samples tested						
Republic of Belarus	0.7	0.9	0.8	0.4	0.2	0.3	0.2
Regions and Minsk city:							
Brest	0.2	0.0	0.1	0.0	0.2	0.0	0.1
Vitebsk	–	–	0.0	0.0	–	–	–
Gomel	0.1	0.1	0.4	0.0	0.1	0.2	0.2
Grodno	0.0	0.0	0.0	0.0	–	–	–
Minsk city	2.2	2.4	2.5	0.8	0.5	0.5	0.2
Minsk	0.3	0.2	0.1	1.5	0.1	0.3	0.2
Mogilev	0.3	0.6	0.2	0.0	–	0.2	0.3

[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

	2013	2014	2015	2016	2017	2018	2019
Average annual temperature, °C							
Republic of Belarus	7.5	7.8	8.5	7.7	7.6	7.9	8.8
Regions and Minsk city:							
Brest	8.2	8.5	9.3	8.5	8.3	8.9	9.6
Vitebsk	6.8	7.1	7.8	6.9	6.7	7.1	8.0
Gomel	8.3	8.3	9.2	8.3	8.2	8.3	9.4
Grodno	7.5	7.8	8.6	7.7	7.6	8.3	8.9
Minsk city	7.5	7.8	8.7	7.8	7.6	8.0	8.4
Minsk	7.3	7.7	8.4	7.4	7.3	7.8	8.6
Mogilev	7.1	7.2	8.1	7.2	7.2	7.1	8.2
Divergence from the norm (1981 – 2010), °C							
Republic of Belarus	0.8	1.1	1.8	1.0	0.9	1.2	2.1
Regions and Minsk city:							
Brest	0.7	1.0	1.8	1.0	0.8	1.4	2.1
Vitebsk	0.8	1.1	1.8	0.9	0.7	1.1	2.0
Gomel	1.1	1.1	2.0	1.1	1.0	1.1	2.2
Grodno	0.7	1.0	1.8	0.9	0.8	1.5	2.1
Minsk city	0.8	1.1	2.0	1.1	0.9	1.3	1.7
Minsk	0.8	1.2	1.9	0.9	0.8	1.3	2.1
Mogilev	0.9	1.0	1.9	1.0	1.0	0.9	2.0

6.2. Average monthly air temperatures by regions and Minsk city

	2013	2014	2015	2016	2017	2018	2019
January, °C							
Republic of Belarus	-7.1	-7.0	-1.1	-7.3	-5.5	-2.7	-5.0
Regions and Minsk city:							
Brest	-5.3	-5.3	0.1	-5.3	-5.2	-1.8	-4.0
Vitebsk	-8.5	-8.0	-1.6	-8.8	-5.8	-2.9	-5.6
Gomel	-6.4	-6.6	-1.0	-7.0	-5.4	-2.8	-4.9
Grodno	-6.5	-6.4	-0.7	-6.5	-5.0	-2.2	-4.6
Minsk city	-7.3	-7.4	-1.3	-7.4	-5.7	-2.8	-5.0
Minsk	-7.5	-7.3	-1.2	-7.8	-5.9	-2.8	-5.1
Mogilev	-8.3	-8.3	-1.9	-8.3	-6.2	-3.4	-6.0
Divergence from the norm (1981 – 2010), °C							
Republic of Belarus	-2.7	-2.6	3.3	-2.9	-1.1	1.7	-0.6
Regions and Minsk city:							
Brest	-1.8	-1.8	3.6	-1.8	-1.7	1.7	-0.5
Vitebsk	-3.5	-3.0	3.4	-3.8	-0.8	2.1	-0.6
Gomel	-2.2	-2.4	3.2	-2.8	-1.2	1.4	-0.7
Grodno	-2.5	-2.4	3.3	-2.5	-1.0	1.8	-0.6
Minsk city	-2.8	-2.9	3.2	-2.9	-1.2	1.7	-0.5
Minsk	-2.9	-2.7	3.4	-3.2	-1.3	1.8	-0.5
Mogilev	-3.0	-3.0	3.4	-3.0	-0.9	1.9	-0.7
July, °C							
Republic of Belarus	18.5	20.6	18.4	19.4	17.4	19.6	17.0
Regions and Minsk city:							
Brest	18.8	21.1	19.3	19.7	18.2	20.0	18.1
Vitebsk	18.1	20.1	17.3	18.8	16.6	19.2	16.1
Gomel	19.3	21.3	19.7	20.8	18.1	19.8	17.6
Grodno	18.2	20.2	17.9	18.4	17.1	19.6	17.1
Minsk city	18.6	20.8	18.6	19.5	17.6	19.6	16.5
Minsk	18.3	20.6	18.0	19.2	17.2	19.5	16.7
Mogilev	18.2	20.1	18.3	19.7	17.3	19.1	16.4
Divergence from the norm (1981 – 2010), °C							
Republic of Belarus	0.1	2.2	0.0	1.0	-1.0	1.2	-1.4
Regions and Minsk city:							
Brest	0.1	2.4	0.6	1.0	-0.5	1.3	-0.6
Vitebsk	0.2	2.2	-0.6	0.9	-1.3	1.3	-1.8
Gomel	0.1	2.1	0.5	1.6	-1.1	0.6	-1.6
Grodno	0.2	2.2	-0.1	0.4	-0.9	1.6	-0.9
Minsk city	0.1	2.3	0.1	1.0	-0.9	1.1	-2.0
Minsk	0.1	2.4	-0.2	1.0	-1.0	1.3	-1.5
Mogilev	-0.1	1.8	0.0	1.4	-1.0	0.8	-1.9

6.3. Average annual precipitation by regions and Minsk city

	2013	2014	2015	2016	2017	2018	2019
Average annual precipitation, millimetre							
Republic of Belarus	671	567	540	742	765	581	574
Regions and Minsk city:							
Brest	712	548	518	743	714	532	558
Vitebsk	670	624	571	743	823	588	687
Gomel	660	533	520	719	712	599	522
Grodno	675	588	566	785	796	558	506
Minsk city	677	605	563	756	787	649	658
Minsk	657	581	574	780	807	596	621
Mogilev	650	523	499	671	704	610	552
As % of the norm (1981 – 2010)							
Republic of Belarus	104	88	84	115	118	90	89
Regions and Minsk city:							
Brest	117	90	85	122	117	87	91
Vitebsk	97	90	83	108	119	85	100
Gomel	103	84	82	113	112	94	82
Grodno	103	89	86	119	121	85	77
Minsk city	98	87	81	109	114	94	95
Minsk	101	89	88	119	124	91	95
Mogilev	104	84	80	108	113	98	88

6.4. Average monthly precipitation by regions and Minsk city

	2013	2014	2015	2016	2017	2018	2019
Average for January, millimetre							
Republic of Belarus	47	48	54	50	38	40	48
Regions and Minsk city:							
Brest	59	46	46	51	27	32	34
Vitebsk	37	42	60	55	43	53	51
Gomel	47	49	49	49	40	40	55
Grodno	55	53	49	42	36	37	46
Minsk city	50	51	63	55	36	39	48
Minsk	48	46	56	50	40	42	47
Mogilev	34	50	63	53	39	37	53
As % of the norm (1981 – 2010)							
Republic of Belarus	118	120	135	125	95	100	120
Regions and Minsk city:							
Brest	159	124	124	138	73	86	92
Vitebsk	82	93	133	122	96	118	113
Gomel	131	136	136	136	111	111	153
Grodno	125	120	111	95	82	84	105
Minsk city	111	113	140	122	80	87	107
Minsk	114	110	133	119	95	100	112
Mogilev	94	139	175	147	108	103	147
Average for July, millimetre							
Republic of Belarus	76	63	74	133	113	147	90
Regions and Minsk city:							
Brest	59	50	54	125	121	127	74
Vitebsk	100	59	77	144	122	140	127
Gomel	62	81	99	89	109	152	93
Grodno	79	66	68	171	111	134	60
Minsk city	96	55	53	135	150	169	119
Minsk	74	55	75	153	121	148	98
Mogilev	85	69	72	113	94	179	89
As % of the norm (1981 – 2010)							
Republic of Belarus	89	74	87	156	133	173	106
Regions and Minsk city:							
Brest	69	59	64	147	142	149	87
Vitebsk	122	72	94	176	149	171	155
Gomel	66	86	105	95	116	162	99
Grodno	92	77	79	199	129	156	70
Minsk city	108	62	60	152	169	190	134
Minsk	90	67	91	187	148	180	120
Mogilev	104	84	88	138	115	218	109

6.5. Greenhouse gas emissions

	2013	2014	2015	2016	2017	2018
Total, without land use, land-use change and forestry						
mln tonnes in terms of CO_2 per year	93.9	93.0	88.4	90.0	91.1	92.0
of which:						
energy	58.5	57.3	53.4	55.4	55.7	57.0
industrial processes and product use	6.6	7.0	6.5	6.1	6.1	6.2
agriculture	22.9	22.7	22.4	22.5	23.1	22.5
waste	5.9	6.1	6.2	6.1	6.1	6.3
as % of 1990	68.2	67.5	64.2	65.4	66.1	66.8
Absorption of greenhouse gases in land use, land-use change and forestry sector, mln tonnes in terms of CO_2 per year	-34.4	-29.3	-26.6	-20.5	-13.1	-22.6
Total, with land use, land-use change and forestry						
mln tonnes in terms of CO_2 per year	59.5	63.7	61.8	69.6	78.0	69.4
as % of 1990	50.8	54.3	52.7	59.4	66.6	59.2

6.6. Structure of greenhouse gas emissions

(as percentage of total)

	2013	2014	2015	2016	2017	2018
Total, without land use, land-use change and forestry	100	100	100	100	100	100
of which:						
energy	62.3	61.6	60.3	61.5	61.2	62.0
industrial processes and product use	7.0	7.5	7.4	6.8	6.7	6.7
agriculture	24.4	24.4	25.3	25.0	25.4	24.5
waste	6.3	6.5	7.0	6.7	6.7	6.9

6.7. Greenhouse gas emissions in energy sector

	2013	2014	2015	2016	2017	2018
Total, million tonnes in terms of CO_2 per year						
Greenhouse gas emissions in energy sector	58.5	57.3	53.4	55.4	55.7	57.0
of which:						
carbon dioxide	57.0	55.8	51.9	54.0	54.3	55.6
methane	1.2	1.2	1.2	1.1	1.2	1.2
dinitrogen monoxide	0.3	0.3	0.3	0.2	0.2	0.2
As % of total						
Greenhouse gas emissions in energy sector	100	100	100	100	100	100
of which:						
carbon dioxide	97.4	97.4	97.2	97.5	97.3	97.5
methane	2.1	2.1	2.2	2.0	2.2	2.1
dinitrogen monoxide	0.5	0.5	0.6	0.4	0.4	0.4

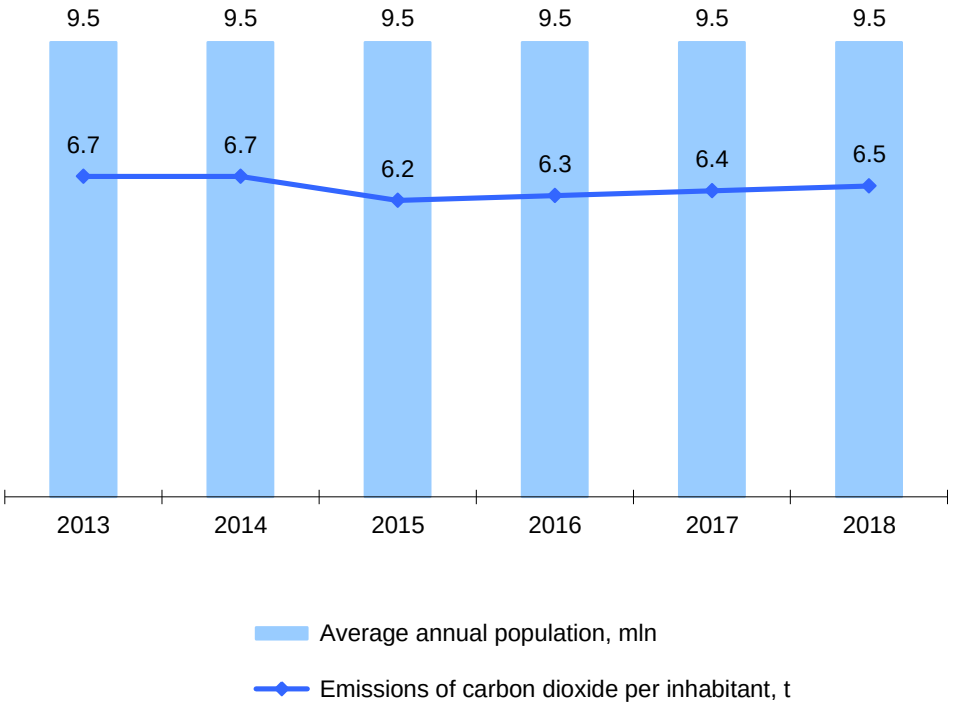
6.8. Greenhouse gas emissions from industrial processes and product use

	2013	2014	2015	2016	2017	2018
Total, million tonnes in terms of CO_2 per year						
Greenhouse gas emissions from industrial processes and product use	6.6	7.0	6.5	6.1	6.1	6.2
of which:						
carbon dioxide	5.8	6.2	5.7	5.4	5.4	5.4
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	88.0	88.8	87.9	88.2	87.3	87.0
methane	1.1	1.0	1.1	1.0	1.1	1.1
dinitrogen monoxide	10.9	10.1	10.9	10.7	11.6	11.9
fluorine-containing gases	0.0	0.0	0.0	0.0	0.0	0.0

6.9. Emissions of carbon dioxide (CO_2)

	2013	2014	2015	2016	2017	2018
Total, million tonnes						
Emissions of carbon dioxide (CO_2) without land use, land-use change and forestry	63.7	63.1	58.6	60.3	60.7	61.9
of which by sector:						
energy	57.0	55.8	51.9	54.0	54.3	55.6
industrial processes and product use	5.8	6.2	5.7	5.4	5.4	5.4
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	89.4	88.4	88.6	89.5	89.5	89.8
industrial processes and product use	9.1	9.8	9.8	8.9	8.8	8.7

6.10. 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)

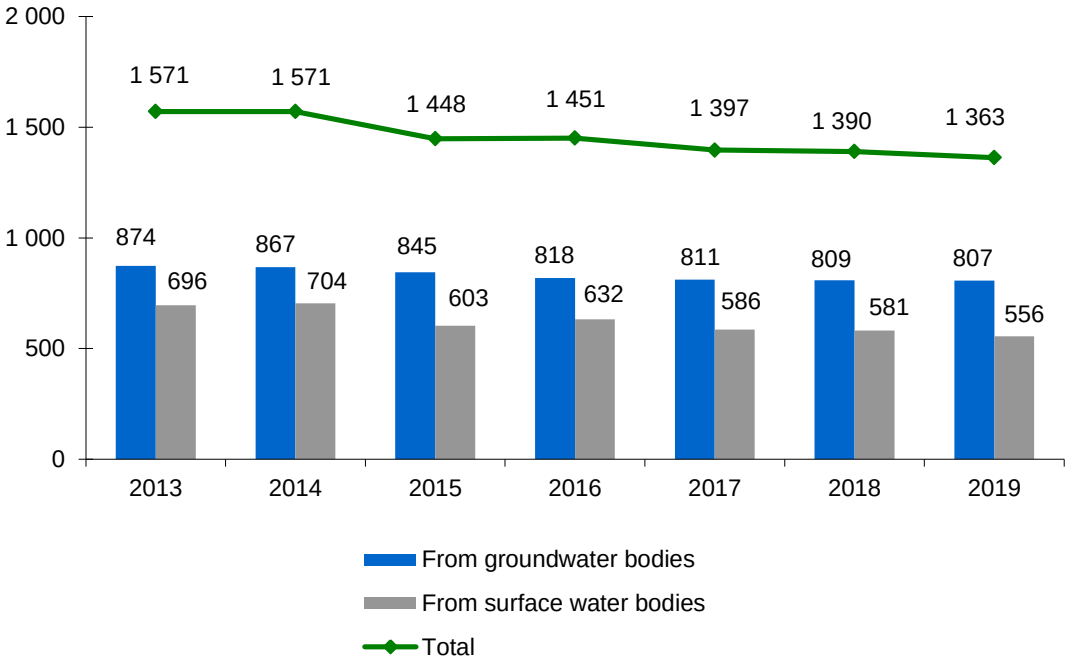
	2013	2014	2015	2016	2017	2018	2019
Water abstraction from natural sources – total	1 571	1 571	1 448	1 451	1 397	1 390	1 363
of which from groundwater bodies	874	867	845	818	811	809	807
Water use – total	1 373	1 371	1 270	1 302	1 264	1 247	1 234
of which for:							
domestic and drinking, including curative, purposes	477	473	474	504	493	490	528
agricultural purposes (except fishery)	117	115	114	116	119	120	121
fishery	372	378	293	344	335	307	261
industrial and other purposes	407	405	389	338	317	331	323
Water loss during transport	83	82	78	68	58	58	42
Circulating water supply	5 574	5 711	5 320	4 921	5 226	5 728	6 168
Recycling (successive) water supply	105	93	94	67	81	77	69
Water discharge – total	1 058	1 034	948	1 153	1 163	1 152	1 143
of which wastewater into surface water bodies	974	954	870	1 048	1 053	1 034	1 019

Continued

	2013	2014	2015	2016	2017	2018	2019
As % of the previous year							
Water abstraction from natural sources – total	95.7	100.0	92.2	100.2	96.3	99.5	98.0
of which from groundwater bodies	97.3	99.1	97.5	96.9	99.1	99.7	99.8
Water use	95.2	99.8	92.6	102.5	97.1	98.6	99.0
Water loss during transport	98.0	99.0	95.5	86.6	85.6	99.5	72.4
Circulating water supply	100.8	102.5	93.2	92.5	106.2	109.6	107.7
Recycling (successive) water supply	128.5	89.4	101.9	71.1	121.0	95.4	89.1
Water discharge – total	96.2	97.8	91.7	121.7	100.9	99.0	99.2
of which wastewater into surface water bodies	96.0	98.0	91.1	120.6	100.4	98.2	98.6
As % of 2015							
Water abstraction from natural sources – total	–	–	100	100.2	96.5	96.0	94.2
of which from groundwater bodies	–	–	100	96.9	96.1	95.8	95.6
Water use	–	–	100	102.5	99.6	98.2	97.2
Water loss during transport	–	–	100	86.6	74.1	73.7	53.4
Circulating water supply	–	–	100	92.5	98.2	107.7	115.9
Recycling (successive) water supply	–	–	100	71.1	86.0	82.0	73.1
Water discharge – total	–	–	100	121.7	122.7	121.5	120.6
of which wastewater into surface water bodies	–	–	100	120.6	121.1	118.9	117.2

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)

	2013	2014	2015	2016	2017	2018	2019
Republic of Belarus	166	166	153	153	147	147	145
Regions and Minsk city:							
Brest	202	204	192	184	190	191	175
Vitebsk	168	167	163	156	143	145	152
Gomel	148	144	136	123	116	122	129
Grodno	134	152	149	146	142	141	137
Minsk city	23	23	22	21	23	23	22
Minsk	389	381	325	349	325	318	305
Mogilev	135	133	127	136	135	128	139

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

(million cubic metres)

	2013	2014	2015	2016	2017	2018	2019
				Total			
Republic of Belarus	1 571	1 571	1 448	1 451	1 397	1 390	1 363
Regions and Minsk city:							
Brest	280	284	266	256	263	264	236
Vitebsk	203	200	195	185	169	170	173
Gomel	211	204	193	175	164	173	179
Grodno	141	160	156	153	148	147	141
Minsk city	44	45	42	42	46	47	44
Minsk	546	535	459	495	463	455	448
Mogilev	145	142	136	145	144	135	143
				of which from groundwater bodies			
Republic of Belarus	874	867	845	818	811	809	807
Regions and Minsk city:							
Brest	141	141	139	134	139	147	142
Vitebsk	106	104	102	98	92	93	97
Gomel	136	134	128	114	117	114	113
Grodno	97	95	97	91	87	89	87
Minsk city	44	45	42	40	44	46	43
Minsk	249	248	239	232	223	219	215
Mogilev	102	100	98	110	109	101	110

7.5. Water abstraction from natural sources by river basin

(million cubic metres)

	2013	2014	2015	2016	2017	2018	2019
				Total			
Total	1 571	1 571	1 448	1 451	1 397	1 390	1 363
Baltic Sea basin	596	625	600	596	546	542	545
of which river basin:							
Neman	350	376	364	366	329	328	335
Western Dvina	178	176	172	164	150	151	154
Western Bug	68	73	65	66	67	63	56
Black Sea basin	974	946	847	855	851	849	818
of which river basin							
Dnieper	523	516	498	483	468	483	487
Pripyat	451	430	349	372	383	366	330
				of which:			
				from groundwater bodies			
Total	874	867	845	818	811	809	807
Baltic Sea basin	316	315	312	296	289	285	286
of which river basin:							
Neman	181	181	178	168	164	159	157
Western Dvina	85	83	81	79	75	76	78
Western Bug	51	50	53	50	50	51	51
Black Sea basin	558	552	532	522	522	524	521
of which river basin							
Dnieper	421	417	402	391	378	388	389
Pripyat	136	135	131	131	144	136	132
				from surface water bodies			
Total	696	704	603	632	586	581	556
Baltic Sea basin	280	311	288	300	257	256	259
of which river basin:							
Neman	169	195	185	198	166	169	178
Western Dvina	93	93	90	85	75	75	76
Western Bug	18	22	13	17	17	12	5
Black Sea basin	416	394	315	333	329	325	297
of which river basin							
Dnieper	101	99	97	92	90	94	99
Pripyat	315	295	218	241	239	230	198

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

(million cubic metres)

	Total				Of which from groundwater bodies			
	2016	2017	2018	2019	2016	2017	2018	2019
Republic of Belarus	1 450.8	1 397.5	1 390.2	1 363.0	818.5	811.3	809.2	807.2
Brest region	255.5	262.9	264.3	235.6	134.3	139.3	147.0	142.4
Brest, city of	28.1	28.4	28.7	28.1	27.0	27.3	27.4	27.1
District:								
Baranovichy	20.3	20.7	19.4	16.2	16.8	17.1	15.7	13.9
Bereza	53.1	52.0	50.7	46.6	6.3	6.4	6.4	6.3
Brest	7.7	8.4	8.9	4.8	3.6	3.7	3.9	3.9
Gantsevichy	33.2	34.1	34.1	24.0	2.2	2.1	2.1	1.9
Drogichin	4.0	3.6	3.7	3.6	2.8	2.5	2.5	2.5
Zhabinka	6.8	6.4	6.1	3.5	2.4	2.3	2.4	2.3
Ivanovo	4.8	4.6	4.3	4.3	4.1	3.9	4.0	3.8
Ivatsevichy	6.3	6.7	6.6	6.5	4.4	4.7	4.7	4.6
Kamenets	4.0	3.8	4.3	4.4	4.0	3.8	4.2	4.4
Kobrin	6.0	6.4	5.8	5.9	5.9	6.1	5.6	5.8
Luninets	34.8	42.9	50.5	43.2	28.6	33.8	41.5	37.0
Lyakhovichy	2.5	2.3	2.3	5.1	2.5	2.2	2.3	3.9
Malorita	8.6	8.4	4.1	4.5	2.7	2.8	3.4	3.8
Pinsk	26.1	25.1	25.3	22.7	11.8	11.5	11.6	11.9
Pruzhany	4.9	4.9	5.0	5.1	4.9	4.9	5.0	5.1
Stolin	4.2	4.0	4.4	7.0	4.2	4.0	4.4	4.2

Continued

	Total				Of which from groundwater bodies			
	2016	2017	2018	2019	2016	2017	2018	2019
Vitebsk region	185.2	169.4	170.1	173.3	97.7	92.3	92.7	96.7
Vitebsk, city of	33.8	30.7	29.8	31.1	29.3	26.7	26.1	27.6
District:								
Beshenkovichy	1.0	1.1	0.9	1.1	1.0	1.1	0.9	1.1
Braslav	2.1	2.1	2.0	1.8	1.8	1.8	1.8	1.7
Verkhnedvinsk	2.5	2.4	2.5	2.5	2.5	2.3	2.5	2.5
Vitebsk	5.2	5.1	4.9	6.6	5.2	5.1	4.9	4.8
Glubokoye	3.5	3.7	3.9	4.8	3.5	3.7	3.9	4.7
Gorodok	2.0	2.0	2.1	2.3	2.0	2.0	2.1	2.3
Dokshitsy	1.8	1.8	1.7	1.7	1.8	1.8	1.7	1.7
Dubrovno	1.2	1.2	1.2	1.0	1.2	1.2	1.2	1.0
Lepel	3.2	2.5	2.5	2.4	3.0	2.4	2.3	2.3
Liozno	2.2	1.6	1.9	1.7	1.7	1.6	1.9	1.7
Miory	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Orsha	16.0	14.9	15.4	17.8	13.4	12.5	13.3	15.8
Polotsk	73.1	68.4	71.4	71.3	16.6	15.9	15.7	15.5
Postavy	14.8	14.7	14.6	12.0	2.5	2.4	2.4	2.2
Rossony	0.6	0.7	0.7	0.8	0.6	0.7	0.7	0.8
Senno	2.1	2.2	2.2	2.6	1.7	1.8	1.7	1.8
Tolochin	2.6	2.1	2.5	2.4	2.5	2.0	2.5	2.3
Ushachy	0.9	0.8	0.9	0.8	0.9	0.8	0.9	0.8
Chashniki	12.6	7.2	5.0	4.8	2.5	2.4	2.4	2.4
Sharkovshchina	1.0	1.0	0.9	0.9	1.0	1.0	0.9	0.9
Shumilino	1.7	1.9	1.6	1.6	1.7	1.9	1.6	1.6

Continued

	Total				Of which from groundwater bodies			
	2016	2017	2018	2019	2016	2017	2018	2019
Gomel region	174.7	164.5	172.6	178.9	113.6	116.6	114.2	112.7
Gomel, city of	46.2	46.3	45.1	44.3	39.9	40.3	38.8	38.4
District:								
Bragin	0.9	0.9	1.0	1.0	0.9	0.9	1.0	1.0
Buda-Koshelyovo	2.5	3.0	3.2	3.3	2.5	3.0	3.2	3.3
Vetka	1.5	1.4	2.0	1.4	1.3	1.3	2.0	1.4
Gomel	6.4	6.7	6.0	6.0	5.6	5.7	5.0	5.0
Dobrush	4.5	4.5	4.8	4.6	3.6	3.5	3.6	3.5
Yelsk	1.4	1.2	1.5	1.4	1.4	1.2	1.5	1.4
Zhitkovichy	18.5	7.6	11.0	14.1	2.1	2.0	2.3	2.5
Zhlobin	9.5	9.8	10.6	9.7	7.7	7.8	8.2	7.8
Kalinkovichy	5.3	6.1	6.2	6.3	5.3	6.1	6.2	6.3
Korma	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Lelchitsy	1.7	1.2	1.2	1.2	1.1	1.2	1.2	1.2
Loyev	1.1	1.0	0.9	0.9	1.1	1.0	0.9	0.9
Mozyr	23.5	21.9	23.5	22.3	10.4	10.7	9.9	9.4
Narovlya	1.5	1.7	1.1	1.8	0.9	1.2	1.1	1.6
Oktyabrsky	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Petrikov	13.9	15.3	15.5	15.2	2.2	2.2	2.3	2.1
Rechitsa	9.1	9.8	9.3	9.3	9.1	9.5	9.0	9.0
Rogachev	5.3	6.5	5.6	5.4	4.8	6.0	5.2	5.1
Svetlogorsk	16.7	14.5	19.0	25.3	8.2	7.7	7.7	7.4
Khoyniki	1.9	1.8	1.6	1.7	1.9	1.8	1.6	1.7
Chechersk	1.1	0.9	1.2	1.3	1.1	0.9	1.2	1.3

Continued

	Total				Of which from groundwater bodies			
	2016	2017	2018	2019	2016	2017	2018	2019
Grodno region	153.1	148.2	147.2	141.1	90.9	87.3	88.6	87.3
Grodno, city of	55.2	53.1	53.9	52.5	28.0	27.2	27.1	27.0
District:								
Berestovitsa	2.2	2.1	2.0	2.0	2.2	2.1	1.9	2.0
Volkovysk	10.0	9.2	11.1	10.7	7.6	7.2	7.7	7.5
Voronovo	3.8	3.7	3.5	3.7	2.4	2.0	2.0	2.0
Grodno	24.7	24.4	18.9	19.3	6.0	5.9	6.0	6.0
Dyatlovo	2.9	2.8	2.9	2.8	2.5	2.4	2.5	2.3
Zelva	1.7	1.6	2.0	1.6	1.7	1.0	0.9	1.4
Ivye	1.4	1.3	1.3	1.4	1.4	1.3	1.3	1.4
Korelichy	1.9	2.1	2.1	2.0	1.8	1.9	1.8	1.8
Lida	12.4	12.2	12.1	11.6	11.9	11.2	11.6	11.3
Mosty	2.8	2.8	2.8	3.1	2.3	2.4	2.4	2.3
Novogrudok	3.5	3.4	3.4	3.4	3.5	3.3	3.3	3.4
Ostrovets	2.4	2.2	2.8	2.7	1.7	1.7	2.1	2.2
Oshmyany	2.4	2.4	2.4	2.4	2.4	2.4	2.3	2.3
Svisloch	1.7	1.6	1.6	1.5	1.6	1.5	1.5	1.5
Slonim	10.4	10.1	10.7	7.1	5.7	5.2	5.3	4.6
Smorgon	8.2	8.3	8.3	6.6	4.2	4.3	4.6	4.3
Shchuchin	5.6	4.9	5.5	7.0	4.0	4.1	4.3	4.1

Continued

	Total				Of which from groundwater bodies			
	2016	2017	2018	2019	2016	2017	2018	2019
Minsk city	42.0	45.8	46.5	43.5	40.1	43.7	46.1	43.0
Minsk region	495.5	463.1	454.6	447.8	232.3	222.7	219.0	214.7
District:								
Berezino	2.2	2.7	2.7	2.5	2.2	2.1	2.0	1.8
Borisov	21.0	18.8	18.0	17.0	17.5	16.7	16.2	15.4
Vileyka	125.2	93.1	99.4	114.8	3.8	3.7	3.7	3.6
Volozhin	3.1	3.0	2.8	2.9	3.1	2.7	2.8	2.9
Dzerzhinsk	18.4	18.0	16.2	16.1	18.3	18.0	16.2	16.1
Kletsk	4.0	3.9	3.9	3.8	4.0	3.9	3.9	3.8
Kopyl	3.4	3.1	2.6	2.3	3.4	3.1	2.6	2.3
Krupki	2.3	2.4	2.3	2.3	2.3	2.4	2.2	2.3
Logoysk	3.8	4.5	4.9	4.9	3.6	3.4	3.6	3.6
Lyuban	56.8	67.9	59.1	42.6	4.1	3.9	4.2	4.9
Minsk	69.9	67.4	69.4	66.1	69.4	67.0	68.9	65.7
Molodechno	16.8	16.3	15.0	15.3	12.8	12.1	11.2	11.5
Myadel	4.4	4.1	4.3	4.1	2.6	2.2	2.4	2.2
Nesvizh	6.7	6.6	6.8	6.9	5.2	5.5	5.7	5.8
Pukhovichy	17.0	17.0	16.5	16.6	14.0	13.9	12.7	11.8
Slutsk	16.2	15.2	15.0	14.9	16.2	15.2	15.0	14.9
Smolevichy	22.4	21.3	21.9	21.6	20.2	18.6	18.6	18.8
Soligorsk	52.2	48.4	45.6	44.7	5.3	5.1	5.1	4.9
Staryie Dorogi	2.3	2.3	2.2	2.4	2.3	2.3	2.2	2.4
Stolbtsy	6.0	6.3	6.7	6.4	4.5	4.0	4.3	4.1
Uzda	3.2	2.9	2.9	2.7	3.2	2.9	2.9	2.7
Cherven	38.3	37.8	36.3	37.1	14.3	13.8	12.3	13.2

Continued

	Total				Of which from groundwater bodies			
	2016	2017	2018	2019	2016	2017	2018	2019
Mogilev region	144.7	143.5	134.9	142.8	109.6	109.4	101.5	110.4
Mogilev, city of	44.3	43.9	43.5	43.1	34.0	33.0	32.6	32.6
District:								
Belynichy	2.3	2.1	2.1	2.1	2.3	2.1	2.1	2.1
Bobruysk	18.5	18.4	18.5	17.7	12.2	13.3	13.4	13.2
Bykhov	2.8	2.9	3.2	2.9	2.8	2.9	3.2	2.9
Glusk	1.1	1.0	1.1	0.8	1.1	1.0	1.1	0.8
Gorki	4.1	3.7	3.7	3.5	4.1	3.7	3.7	3.5
Dribin	0.9	0.8	0.9	0.8	0.9	0.8	0.9	0.8
Kirovsk	8.4	7.3	6.8	6.4	6.6	6.4	6.2	5.9
Klimovichy	2.1	2.1	2.0	1.9	2.1	2.1	2.0	1.9
Klichev	0.9	0.9	1.0	1.0	0.9	0.9	1.0	1.0
Kostyukovichy	19.4	19.9	12.9	21.5	19.4	19.9	12.9	21.5
Krasnopolye	0.4	0.4	0.7	0.6	0.4	0.4	0.7	0.6
Krichev	1.5	1.6	1.6	3.5	1.5	1.6	1.6	3.5
Krugloye	1.1	1.3	1.3	1.2	1.1	1.3	1.3	1.2
Mogilev	6.1	6.6	6.2	6.4	4.7	5.0	5.0	5.0
Mstislavl	2.1	2.2	1.6	1.9	2.1	2.2	1.5	1.9
Osipovichy	16.7	16.6	16.4	16.7	3.7	3.7	3.6	3.9
Slavgorod	2.4	1.7	1.2	0.9	2.4	1.7	1.2	0.9
Khotimsk	0.8	0.6	0.8	0.8	0.8	0.6	0.8	0.8
Chausy	1.8	2.2	2.3	1.8	1.8	1.8	1.9	1.7
Cherikov	1.1	1.3	1.2	0.9	1.0	1.1	1.1	0.9
Shklov	5.8	6.0	6.1	6.4	3.7	3.8	3.6	3.7

7.7. Water abstraction from natural sources by economic activity

(million cubic metres)

	Total				Of which from groundwater bodies			
	2016	2017	2018	2019	2016	2017	2018	2019
Republic of Belarus	1 450.8	1 397.5	1 390.2	1 363.0	818.5	811.3	809.2	807.2
of which:								
Agriculture, forestry and fishing	427.7	431.2	415.5	367.3	134.2	136.4	135.3	134.0
Mining	25.8	31.1	39.1	34.1	25.8	31.0	38.9	34.1
Manufacturing	193.7	188.8	188.1	198.5	87.9	89.1	83.8	92.0
of which:								
Manufacture of food products, beverages and tobacco products	49.8	51.3	50.5	49.4	43.5	45.6	44.8	45.0
Manufacture of textile articles, wearing apparel, articles of leather and fur	10.8	8.0	7.7	7.5	1.7	1.6	1.7	1.7
Manufacture of products of wood and paper; printing and reproduction of recorded media	14.7	14.2	17.9	24.8	1.8	1.9	2.0	1.8
Manufacture of coke and refined petroleum products	14.3	13.4	14.1	13.4	2.1	2.1	2.0	1.7
Manufacture of chemicals and chemical products	53.8	52.0	53.1	51.1	4.3	4.3	4.4	4.0
Manufacture of basic pharmaceuticals and medicinal products	0.6	0.5	0.6	0.7	0.6	0.5	0.6	0.7
Manufacture of rubber and plastics products, of other non-metallic mineral products	30.8	31.6	25.7	35.1	22.3	21.7	17.0	26.4
Manufacture of basic metals; manufacture of fabricated metal products, except machinery and equipment	3.7	3.9	4.4	3.8	2.0	2.0	2.1	1.9
Manufacture of computer, electronic and optical products	2.8	2.8	2.7	2.4	2.4	2.5	2.4	2.1

Continued

	Total				Of which from groundwater bodies			
	2016	2017	2018	2019	2016	2017	2018	2019
Manufacture of electrical equipment	1.3	1.1	1.1	1.1	0.5	0.4	0.4	0.6
Manufacture of machinery and equipment n.e.c.	7.7	6.3	7.0	6.3	3.9	3.7	3.8	3.8
Manufacture of transport vehicles and equipment	2.8	3.0	2.8	2.5	2.6	2.8	2.5	2.2
Other manufacturing; repair and installation of machinery and equipment	0.6	0.6	0.4	0.5	0.2	0.2	0.2	0.1
Electricity, gas, steam, hot water and air conditioning supply	223.4	209.0	202.8	194.3	151.3	145.0	133.7	120.7
Water supply; waste management and remediation activities	530.1	491.8	504.7	529.3	406.9	400.7	407.3	416.8
Construction	15.1	14.5	11.8	11.7	1.6	0.8	0.8	0.9
Wholesale and retail trade; repair of motor vehicles and motorcycles	1.9	1.7	1.5	2.0	0.6	0.6	0.6	0.8
Transportation and storage, postal and courier activities	3.6	1.3	3.5	3.0	1.3	0.9	1.3	0.9
Accommodation and food service activities	17.8	17.0	11.9	11.9	1.0	0.2	0.3	0.3
Information and communication	0.0	0.0	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	0.0	0.0
Real estate activities	1.5	0.3	0.5	0.4	1.4	0.3	0.5	0.4
Professional, scientific and technical activities	1.8	2.0	1.8	1.8	0.3	0.2	0.2	0.2
Administrative and support service activities	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1
Public administration	1.9	1.8	2.0	1.8	1.9	1.8	2.0	1.8
Education	0.2	0.2	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	3.4	3.3	3.4	3.4
Arts, sports, entertainment and recreation	2.7	3.1	3.4	3.2	0.6	0.5	0.5	0.5
Other service activity	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.0

7.8. Water use by regions and Minsk city

(million cubic metres)

	2013	2014	2015	2016	2017	2018	2019
Total							
Republic of Belarus	1 373	1 371	1 270	1 302	1 264	1 247	1 234
Regions and Minsk city:							
Brest	246	250	236	222	231	224	197
Vitebsk	187	184	181	172	159	162	160
Gomel	189	183	176	164	156	165	174
Grodno	129	148	146	143	145	139	136
Minsk city	180	180	174	169	161	161	200
Minsk	313	302	237	315	292	278	253
Mogilev	128	125	121	116	120	117	113
of which for:							
domestic and drinking, including curative, purposes							
Republic of Belarus	477	473	474	504	493	490	528
Regions and Minsk city:							
Brest	60	60	60	55	60	58	56
Vitebsk	55	53	53	54	52	54	53
Gomel	66	65	66	70	67	69	69
Grodno	50	49	50	47	51	48	53
Minsk city	126	127	126	127	123	125	167
Minsk	65	67	67	108	83	81	76
Mogilev	55	52	53	44	57	54	55

Continued

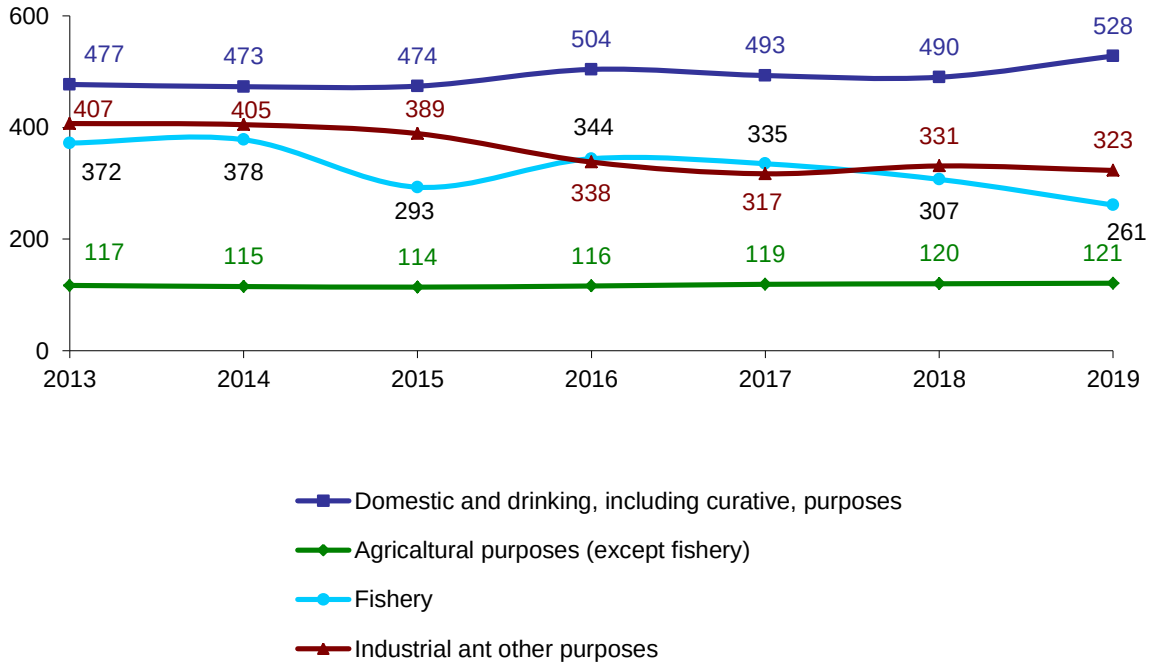
	2013	2014	2015	2016	2017	2018	2019
agricultural purposes (except fishery)							
Republic of Belarus	117	115	114	116	119	120	121
Regions and Minsk city:							
Brest	25	23	24	24	24	24	24
Vitebsk	17	16	15	15	15	13	14
Gomel	17	18	18	16	19	20	20
Grodno	14	14	16	17	17	18	18
Minsk	30	30	28	31	29	29	29
Mogilev	15	14	14	13	15	15	15
fishery							
Republic of Belarus	372	378	293	344	335	307	261
Regions and Minsk city:							
Brest	131	137	117	116	118	109	83
Vitebsk	19	16	16	16	15	13	10
Gomel	28	27	25	29	18	20	25
Grodno	9	29	26	34	32	26	23
Minsk	171	154	94	133	134	121	104
Mogilev	14	15	15	16	17	17	16

Continued

	2013	2014	2015	2016	2017	2018	2019
				industrial and other purposes			
Republic of Belarus	407	405	389	338	317	331	323
Regions and Minsk city:							
Brest	30	30	35	27	29	33	34
Vitebsk	97	99	97	88	77	82	83
Gomel	79	72	68	49	51	55	60
Grodno	56	56	54	45	44	46	42
Minsk city	54	53	48	38	38	37	32
Minsk	47	51	48	46	46	48	45
Mogilev	44	44	40	42	32	31	27

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)

	2013	2014	2015	2016	2017	2018	2019
Republic of Belarus	50	50	50	53	52	52	56
Regions and Minsk city:							
Brest	43	43	43	40	43	42	41
Vitebsk	45	44	44	45	44	46	46
Gomel	46	46	46	49	47	49	49
Grodno	48	46	47	45	49	46	51
Minsk city	66	66	64	64	62	63	83
Minsk	47	47	47	76	58	57	52
Mogilev	51	49	49	42	53	52	54

7.11. Water use by economic activity

(million cubic metres)

	2016	2017	2018	2019
Total	1 301.6	1 264.2	1 246.9	1 234.0
of which:				
Agriculture, forestry and fishing	480.2	443.9	423.8	378.6
Mining	1.5	6.8	8.7	8.1
Manufacturing	175.4	179.6	187.0	177.6
of which:				
Manufacture of food products, beverages and tobacco products	49.8	52.3	50.5	49.9
Manufacture of textile articles, wearing apparel, articles of leather and fur	10.8	8.8	7.8	7.6
Manufacture of products of wood and paper; printing and reproduction of recorded media	14.7	14.4	18.4	25.1
Manufacture of coke and refined petroleum products	14.3	14.7	18.6	15.7
Manufacture of chemicals and chemical products	53.8	55.0	57.0	47.9
Manufacture of basic pharmaceuticals and medicinal products	0.6	0.5	0.6	0.6
Manufacture of rubber and plastics products, of other non-metallic mineral products	12.5	14.5	14.5	13.3
Manufacture of basic metals; manufacture of fabricated metal products, except machinery and equipment	3.7	5.1	5.4	4.3
Manufacture of computer, electronic and optical products	2.8	2.8	2.7	2.5
Manufacture of electrical equipment	1.3	1.1	1.1	1.1

Continued

	2016	2017	2018	2019
Manufacture of machinery and equipment n.e.c.	7.7	6.6	7.2	6.4
Manufacture of transport vehicles and equipment	2.8	3.2	2.8	2.7
Other manufacturing; repair and installation of machinery and equipment	0.6	0.6	0.4	0.6
Electricity, gas, steam, hot water and air conditioning supply	200.1	192.4	184.3	181.4
Water supply; waste management and remediation activities	394.4	392.8	402.0	448.5
Construction	15.1	14.5	12.0	11.7
Wholesale and retail trade; repair of motor vehicles and motorcycles	1.9	1.7	1.5	2.1
Transportation and storage, postal and courier activities	3.6	4.1	3.9	3.1
Accommodation and food service activities	17.8	17.0	11.9	11.9
Information and communication	0.0	0.0	0.0	0.0
Financial and insurance activities	0.0	0.0	0.0	0.0
Real estate activities	1.4	0.3	0.5	0.4
Professional, scientific and technical activities	1.8	2.1	1.8	1.8
Administrative and support service activities	0.1	0.1	0.2	0.2
Public administration	1.9	1.8	2.0	1.8
Education	0.2	0.2	0.2	0.1
Human health and social work activities	3.4	3.4	3.3	3.4
Arts, sports, entertainment and recreation	2.7	3.4	3.5	3.2
Other service activity	0.2	0.1	0.2	0.1

7.12. Water loss during transport by regions and Minsk city

(million cubic metres)

	2013	2014	2015	2016	2017	2018	2019
Republic of Belarus	82.7	81.8	78.1	67.6	57.9	57.6	41.7
Regions and Minsk city:							
Brest	6.4	5.9	5.6	4.4	4.6	4.5	3.8
Vitebsk	8.4	8.4	8.3	7.4	7.0	6.9	5.1
Gomel	12.5	11.8	11.0	5.2	4.6	4.1	4.4
Grodno	6.6	6.7	5.0	4.4	4.3	3.8	3.5
Minsk city	24.8	25.0	24.5	19.7	24.6	27.1	13.9
Minsk	13.9	13.1	15.2	19.4	6.1	4.7	4.8
Mogilev	10.1	11.0	8.6	7.1	6.7	6.5	6.1

7.13. Water discharge by regions and Minsk city

(million cubic metres)

	2013	2014	2015	2016	2017	2018	2019
Total							
Republic of Belarus	1 058	1 034	948	1 153	1 163	1 152	1 143
Regions and Minsk city:							
Brest	190	195	163	204	215	206	194
Vitebsk	138	137	139	150	144	148	150
Gomel	144	139	128	158	153	150	155
Grodno	103	115	114	130	127	119	124
Minsk city	174	168	162	215	211	214	209
Minsk	202	185	146	171	176	182	171
Mogilev	106	96	95	125	137	134	139
of which wastewater into surface water bodies							
Republic of Belarus	974	954	870	1 048	1 053	1 034	1 019
Regions and Minsk city:							
Brest	176	181	149	167	171	157	147
Vitebsk	128	127	129	144	138	140	141
Gomel	124	119	110	147	142	137	143
Grodno	89	103	101	120	116	105	112
Minsk city	174	168	162	215	211	213	209
Minsk	183	166	128	155	159	163	154
Mogilev	99	90	90	101	115	117	112

7.14. Water discharge by regions, cities and districts

(million cubic metres)

	Total				Of which wastewater into surface water bodies			
	2016	2017	2018	2019	2016	2017	2018	2019
Republic of Belarus	1 152.9	1 162.9	1 151.8	1 142.8	1 048.4	1 052.7	1 034.0	1 019.3
Brest region	204.0	215.2	206.2	194.0	167.0	171.4	157.4	147.5
Brest, city of	30.9	31.2	30.6	30.8	30.8	31.2	30.9	30.8
District:								
Baranovichy	18.1	18.4	17.5	16.1	15.6	15.7	14.3	13.1
Bereza	44.3	45.6	37.3	33.3	43.9	45.1	36.6	32.6
Brest	3.9	3.6	4.1	2.6	2.4	2.7	2.9	0.6
Gantsevichy	16.4	16.3	19.2	17.4	16.3	16.1	19.0	17.1
Drogichin	2.1	1.9	2.0	1.9	1.8	1.7	1.7	1.7
Zhabinka	5.3	5.3	4.9	1.6	3.7	3.7	3.3	0.1
Ivanovo	3.2	3.1	2.9	3.2	1.9	2.2	1.8	2.1
Ivatsevichy	4.1	4.2	4.2	4.1	3.4	3.5	3.3	3.2
Kamenets	2.2	1.1	1.9	2.7	0.8	0.6	1.0	1.0
Kobrin	4.6	4.1	4.4	4.3	3.6	3.4	3.5	3.4
Luninets	30.9	45.1	46.5	39.3	10.4	14.0	13.7	10.9
Lyakhovichy	0.9	0.7	0.9	1.1	0.6	0.6	0.6	0.7
Malorita	10.4	10.1	4.2	4.8	7.8	8.8	3.2	2.9
Pinsk	20.8	20.8	20.7	23.7	20.3	20.2	19.8	22.8
Pruzhany	4.2	2.3	3.0	2.8	3.3	1.8	1.9	1.8
Stolin	1.7	1.6	1.9	4.3	0.2	0.2	0.2	2.6

Continued

	Total				Of which wastewater into surface water bodies			
	2016	2017	2018	2019	2016	2017	2018	2019
Vitebsk region	149.9	144.1	148.0	149.7	143.5	138.1	140.3	141.0
Vitebsk, city of	33.6	35.2	37.1	39.1	33.6	35.2	37.0	38.5
District:								
Beshenkovichy	0.2	0.3	0.3	0.6	0.2	0.2	0.3	0.4
Braslav	0.6	0.6	0.6	0.6	0.4	0.5	0.5	0.5
Verkhnedvinsk	0.9	0.9	1.0	0.9	0.3	0.3	0.6	0.5
Vitebsk	1.5	1.6	3.7	3.5	0.9	1.1	3.0	2.8
Glubokoye	1.3	1.3	1.9	2.1	0.5	0.1	0.1	0.1
Gorodok	1.5	1.4	1.3	1.2	1.1	1.3	1.1	0.8
Dokshitsy	0.4	0.5	0.5	0.6	0.2	0.2	0.3	0.3
Dubrovno	0.4	0.3	0.4	0.3	0.3	0.2	0.2	0.2
Lepel	1.7	1.8	1.7	1.9	1.5	1.5	1.4	1.6
Liozno	0.7	0.4	0.5	0.5	0.4	–	–	–
Miory	0.7	0.5	0.6	0.6	0.1	0.1	0.1	0.1
Orsha	12.9	12.6	12.2	12.3	12.4	12.2	11.8	11.3
Polotsk	69.2	62.7	64.0	66.3	68.7	62.3	63.4	65.8
Postavy	13.9	14.0	13.5	10.9	13.3	13.4	13.1	10.2
Rossony	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1
Senno	1.3	1.3	1.5	1.8	1.3	1.3	1.4	1.7
Tolochin	1.0	0.9	1.8	1.1	0.8	0.6	0.7	0.8
Ushachy	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.4
Chashniki	6.5	6.1	3.7	3.7	6.4	6.1	3.7	3.6
Sharkovshchina	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Shumilino	0.8	0.8	0.8	1.0	0.7	0.7	0.8	0.9

Continued

	Total				Of which wastewater into surface water bodies			
	2016	2017	2018	2019	2016	2017	2018	2019
Gomel region	157.6	152.6	149.6	155.0	147.3	141.7	137.2	143.0
Gomel, city of	82.2	81.7	72.6	72.4	82.2	81.7	72.6	72.4
District:								
Bragin	0.3	0.2	0.3	0.3	0.0	–	–	–
Buda-Koshelyovo	1.1	1.0	1.4	1.4	0.9	0.9	1.1	1.0
Vetka	0.5	0.5	0.9	0.5	0.5	0.5	0.4	–
Gomel	1.5	1.4	1.6	1.3	0.1	0.1	0.1	0.1
Dobrush	1.8	1.8	2.2	1.7	0.2	0.2	0.2	0.2
Yelsk	0.3	0.3	0.5	0.4	–	–	–	–
Zhitkovichy	11.1	5.8	7.2	9.1	11.0	5.6	7.0	8.4
Zhlobin	5.9	7.2	6.7	7.2	5.6	6.8	6.1	6.6
Kalinkovichy	0.7	0.6	1.0	1.3	–	0.0	0.0	0.4
Korma	0.4	0.3	0.4	0.3	–	–	–	–
Lelchitsy	0.7	0.3	0.4	0.4	0.4	–	–	–
Loyev	0.3	0.2	0.3	0.3	0.0	–	–	0.0
Mozyr	19.6	17.5	17.2	15.9	18.7	17.0	16.8	15.5
Narovlya	1.0	1.0	0.5	0.9	0.5	0.5	–	0.1
Oktyabrsky	0.4	0.3	0.4	0.4	0.1	0.1	0.1	0.1
Petrikov	10.2	10.1	11.6	11.1	10.0	9.9	11.1	10.6
Rechitsa	3.9	6.3	5.8	5.1	3.3	4.7	4.9	4.1
Rogachev	2.6	3.0	3.2	3.3	2.3	2.3	2.4	2.4
Svetlogorsk	11.8	11.8	14.1	20.4	10.4	10.2	13.4	19.8
Khoyniki	1.0	1.0	0.9	1.0	0.9	0.8	0.8	0.9
Chechersk	0.3	0.3	0.3	0.4	0.2	0.2	0.2	0.3

Continued

	Total				Of which wastewater into surface water bodies			
	2016	2017	2018	2019	2016	2017	2018	2019
Grodno region	130.5	126.7	118.7	124.5	119.7	115.7	105.1	111.9
Grodno, city of	54.1	48.4	44.5	48.8	53.6	48.3	44.2	48.7
District:								
Berestovitsa	0.6	0.6	0.9	1.0	0.4	0.3	0.4	0.4
Volkovysk	8.9	9.7	9.4	9.0	6.9	7.6	7.1	7.0
Voronovo	2.1	1.9	2.4	2.2	1.7	1.7	1.8	1.8
Grodno	21.2	21.1	15.6	16.5	18.8	18.6	12.8	13.8
Dyatlovo	1.4	1.6	1.6	1.8	0.7	0.8	0.7	0.8
Zelva	1.0	0.6	1.0	0.5	0.7	0.4	0.2	0.2
Ivye	0.3	0.3	0.5	0.5	0.3	0.3	0.3	0.3
Korelichy	1.0	0.9	1.2	0.9	0.6	0.5	0.6	0.5
Lida	14.2	15.2	14.4	13.8	13.5	14.3	13.6	12.9
Mosty	1.0	0.8	1.3	1.6	0.8	0.7	0.8	1.1
Novogrudok	2.3	2.5	2.4	5.0	2.1	2.2	2.2	4.7
Ostrovets	1.1	1.1	1.4	1.4	1.0	0.9	1.1	1.1
Oshmyany	1.2	1.1	1.2	1.5	0.9	0.9	0.9	1.1
Svisloch	0.8	0.4	0.6	0.6	0.1	0.0	–	0.0
Slonim	10.5	11.1	11.6	9.8	10.2	10.9	10.9	9.2
Smorgon	5.2	5.9	5.4	4.5	4.9	4.7	4.7	3.8
Shchuchin	3.5	3.3	3.4	5.1	2.6	2.6	2.7	4.5

Continued

	Total				Of which wastewater into surface water bodies			
	2016	2017	2018	2019	2016	2017	2018	2019
Minsk city	214.9	211.5	213.6	209.4	214.7	211.4	213.4	209.3
Minsk region	171.4	175.5	181.7	171.1	155.3	159.1	163.1	154.4
District:								
Berezino	0.6	1.0	1.5	1.5	0.6	–	1.2	1.2
Borisov	17.2	16.8	15.6	15.6	16.4	16.4	15.0	15.1
Vileyka	1.9	2.0	2.1	2.0	1.6	1.8	1.5	1.5
Volozhin	1.4	1.4	1.2	1.3	1.2	1.1	0.9	1.0
Dzerzhinsk	3.0	3.2	3.6	3.3	2.4	2.5	2.6	2.8
Kletsk	1.4	1.4	1.5	1.4	0.4	0.4	0.4	0.2
Kopyl	0.8	1.0	1.0	0.9	0.6	0.9	0.8	0.8
Krupki	0.8	0.8	0.8	0.8	0.6	0.6	0.6	0.6
Logoysk	1.3	1.3	1.6	1.5	1.1	1.2	1.3	1.4
Lyuban	26.5	32.6	28.2	20.4	26.1	32.2	27.7	19.8
Minsk	3.9	3.8	4.3	3.9	0.3	0.4	0.3	0.3
Molodechno	14.2	13.7	23.9	23.2	13.0	12.6	22.8	22.3
Myadel	3.4	3.4	3.6	3.5	3.1	3.1	3.2	3.2
Nesvizh	3.0	3.5	4.0	4.1	1.8	2.1	2.2	2.3
Pukhovichy	4.3	4.6	5.1	4.2	3.1	3.5	3.4	3.4
Slutsk	10.1	10.5	10.7	10.4	8.9	9.3	9.3	9.0
Smolevichy	10.0	10.7	11.2	10.6	9.2	9.8	10.3	9.7
Soligorsk	45.2	40.4	39.3	39.7	44.4	40.0	38.5	39.1
Staryie Dorogi	0.6	0.7	0.7	0.7	0.5	0.6	0.6	0.6
Stolbtsy	2.8	3.7	3.7	3.5	2.3	3.2	3.1	2.8
Uzda	1.2	1.2	0.7	0.6	0.0	0.1	0.1	0.0
Cherven	17.7	17.6	17.5	17.9	17.3	17.3	17.3	17.3

Continued

	Total				Of which wastewater into surface water bodies			
	2016	2017	2018	2019	2016	2017	2018	2019
Mogilev region	124.6	137.4	134.1	139.1	100.9	115.4	117.4	112.1
Mogilev, city of	43.7	55.9	56.7	54.1	43.7	55.8	56.6	54.1
District:								
Belynichy	1.0	0.8	0.9	0.8	0.3	0.1	0.2	0.1
Bobruysk	28.7	28.3	28.0	26.3	28.7	28.3	27.7	26.1
Bykhov	0.4	1.2	2.2	1.7	0.3	1.1	1.9	1.4
Glusk	0.0	0.3	0.3	0.2	–	0.2	0.2	0.2
Gorki	1.5	1.6	2.3	1.7	1.5	1.5	2.1	1.5
Dribin	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2
Kirovsk	2.8	2.1	2.2	2.1	2.1	1.9	2.2	2.0
Klimovichy	1.0	1.0	1.1	1.0	0.2	0.1	0.1	0.1
Klichev	0.7	0.3	0.3	0.3	–	–	–	–
Kostyukovichy	18.4	18.4	11.7	20.0	1.1	1.1	0.8	1.2
Krasnopolye	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Krichev	1.1	1.0	1.5	3.0	1.1	1.0	1.5	1.2
Krugloye	0.2	0.2	0.2	0.2	0.0	0.0	0.0	0.0
Mogilev	1.0	3.1	3.1	3.0	0.8	2.7	2.6	2.4
Mstislavl	0.4	0.7	0.4	0.5	0.0	0.4	0.1	0.3
Osipovichy	16.2	15.7	15.3	15.3	16.0	15.4	15.1	15.1
Slavgorod	0.6	0.6	0.3	0.3	–	–	–	0.0
Khotimsk	0.1	0.2	0.3	0.3	–	0.1	0.1	0.1
Chausy	0.8	1.2	1.1	1.3	0.8	1.2	1.0	1.2
Cherikov	1.1	0.4	1.0	0.9	0.6	0.2	0.8	0.6
Shklov	4.2	3.9	4.8	5.4	3.5	3.7	4.2	4.3

7.15. Water discharge by economic activity

(million cubic metres)

	2016	2017	2018	2019	
				total	of which wastewater into surface water bodies
Total	1 152.9	1 162.9	1 151.8	1 142.8	1 019.3
of which:					
Agriculture, forestry and fishing	245.0	241.2	242.6	216.3	188.8
Mining	24.2	36.1	35.1	30.7	3.2
Manufacturing	121.5	118.8	116.0	129.5	95.9
of which:					
Manufacture of food products, beverages and tobacco products	16.0	16.0	16.9	17.0	8.1
Manufacture of textile articles, wearing apparel, articles of leather and fur	2.1	0.6	0.6	0.5	0.3
Manufacture of products of wood and paper; printing and reproduction of recorded media	5.1	6.1	8.6	15.7	14.6
Manufacture of coke and refined petroleum products	48.6	47.1	45.7	45.6	45.0
Manufacture of chemicals and chemical products	25.7	24.6	25.5	22.3	22.2
Manufacture of basic pharmaceuticals and medicinal products	0.1	0.0	0.0	0.1	0.0
Manufacture of rubber and plastics products, of other non-metallic mineral products	21.7	21.9	16.0	25.8	3.5
Manufacture of basic metals; manufacture of fabricated metal products, except machinery and equipment	0.1	0.1	0.1	0.0	0.0
Manufacture of computer, electronic and optical products	0.0	0.0	0.0	0.0	0.0
Manufacture of electrical equipment	0.1	0.1	0.1	0.1	0.1

Continued

	2016	2017	2018	2019	
				total	of which wastewater into surface water bodies
Manufacture of machinery and equipment n.e.c.	1.5	1.4	1.4	1.3	1.1
Manufacture of transport vehicles and equipment	0.1	0.7	0.9	0.8	0.8
Other manufacturing; repair and installation of machinery and equipment	0.1	0.2	0.1	0.1	0.1
Electricity, gas, steam, hot water and air conditioning supply	149.0	151.1	140.1	134.1	115.1
Water supply; waste management and remediation activities	513.4	512.6	529.2	540.1	529.3
Construction	18.0	13.0	7.7	12.8	12.6
Wholesale and retail trade; repair of motor vehicles and motorcycles	1.9	1.8	1.8	2.0	1.3
Transportation and storage, postal and courier activities	11.7	12.1	17.5	11.7	11.4
Accommodation and food service activities	16.9	17.0	11.6	13.4	12.6
Information and communication	–	–	0.0	0.0	–
Financial and insurance activities	0.0	0.0	0.0	0.0	0.0
Real estate activities	2.2	0.1	0.2	0.2	0.0
Professional, scientific and technical activities	2.3	2.6	1.2	1.1	1.0
Administrative and support service activities	40.3	51.3	42.8	45.2	45.2
Public administration	1.0	0.9	1.0	0.7	0.3
Education	0.1	0.1	0.1	0.1	0.0
Human health and social work activities	3.5	2.2	2.3	2.3	0.2
Arts, sports, entertainment and recreation	1.8	1.8	2.6	2.5	2.4
Other service activity	0.0	0.0	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)

	2013	2014	2015	2016	2017	2018	2019
Total							
Republic of Belarus	973.9	954.2	869.6	1 048.4	1 052.7	1 034.0	1 019.3
Regions and Minsk city:							
Brest	175.8	181.0	149.1	167.0	171.4	157.4	147.5
Vitebsk	128.2	127.2	128.8	143.5	138.1	140.3	141.0
Gomel	124.3	119.3	110.0	147.3	141.7	137.2	143.0
Grodno	89.4	102.6	101.4	119.7	115.7	105.1	111.9
Minsk city	173.9	168.0	162.4	214.7	211.4	213.4	209.3
Minsk	182.8	165.8	128.0	155.3	159.1	163.1	154.4
Mogilev	99.4	90.3	89.9	100.9	115.4	117.4	112.1
of which:							
without pre-treatment							
Republic of Belarus	317.0	315.7	245.7	339.1	354.0	340.9	325.8
Regions and Minsk city:							
Brest	103.7	112.4	82.3	92.0	99.8	88.8	76.9
Vitebsk	40.5	42.5	43.0	51.0	47.0	49.7	49.7
Gomel	26.7	22.2	19.5	55.7	49.2	43.7	47.6
Grodno	7.0	26.2	25.3	30.4	30.4	24.7	26.9
Minsk city	8.8	0.8	0.4	0.5	4.5	4.2	4.0
Minsk	118.3	99.9	62.3	86.0	89.4	94.4	85.6
Mogilev	12.1	11.8	13.0	23.4	33.6	35.5	35.2
treated according to standards							
Republic of Belarus	653.9	635.0	618.2	703.0	694.4	689.1	689.4
Regions and Minsk city:							
Brest	72.0	68.3	66.5	74.8	71.4	68.4	70.5
Vitebsk	87.6	84.6	85.7	91.7	90.7	90.6	91.2
Gomel	97.6	97.1	90.5	89.9	92.4	93.1	95.3
Grodno	82.4	76.4	76.1	89.3	85.2	80.3	84.9
Minsk city	165.1	167.2	162.0	213.7	206.8	209.2	205.3
Minsk	62.4	63.2	61.2	66.2	66.6	66.0	65.5
Mogilev	86.8	78.1	76.1	77.4	81.4	81.5	76.8

Continued

	2013	2014	2015	2016	2017	2018	2019
insufficiently treated							
Republic of Belarus	2.9	3.4	5.7	6.4	4.3	4.0	4.1
Regions and Minsk city:							
Brest	0.1	0.3	0.3	0.2	0.3	0.2	0.1
Vitebsk	0.1	0.1	0.1	0.8	0.4	0.1	0.0
Gomel	0.1	0.0	0.0	1.6	0.1	0.4	0.2
Grodno	0.0	0.0	0.0	0.0	0.1	0.1	0.2
Minsk city	0.0	0.0	0.0	0.5	0.0	0.0	0.0
Minsk	2.1	2.7	4.4	3.1	3.1	2.8	3.3
Mogilev	0.5	0.3	0.8	0.0	0.3	0.4	0.1

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

	2013	2014	2015	2016	2017	2018	2019
Wastewater discharge into surface water bodies, mln m^3	974	954	870	1 048	1 053	1 034	1 019
Contaminants discharged:							
biochemical oxygen demand (BOD_5), thsd t	8	8	8	9	10	9	12
salinity, thsd t	421	398	382	404	412	419	509
sulphate ions, thsd t	58	47	53	51	49	48	63
chloride ions, thsd t	72	73	66	69	69	70	92
ammonium ions, thsd t	5	5	6	6	6	5	4
suspended solids, thsd t	14	13	12	17	16	14	15
synthetic surface-active substances, t	101	106	107	105	110	82	88
ferrum, total, t	382	289	278	297	271	231	226
chromium, total, t	3	4	3	3	3	4	3
copper, t	6	5	5	6	5	4	3
zinc, t	25	24	25	29	29	20	22
lead, t	2	2	1	0.7	0.5	0.5	0.1

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

(million cubic metres per year)

	2013	2014	2015	2016	2017	2018	2019
Republic of Belarus	1 834.0	1 871.7	1 872.9	1 845.4	1 884.8	2 365.1	2 579.9
Regions and Minsk city:							
Brest	305.9	313.7	318.2	332.0	325.8	360.7	384.4
Vitebsk	211.9	215.6	215.7	202.1	203.5	360.6	376.1
Gomel	238.2	240.0	239.5	241.1	266.7	425.4	442.6
Grodno	215.7	215.4	215.2	212.3	210.4	236.7	235.2
Minsk city	334.1	348.1	348.3	378.7	393.9	398.7	414.4
Minsk	271.4	273.5	271.4	227.3	224.6	309.3	432.9
Mogilev	256.8	265.4	264.6	251.8	259.8	273.5	294.4

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

(miligrammes O_2 per cubic decimetre)

	2013	2014	2015	2016	2017	2018	2019
Berezina	2.44	2.48	2.80	2.48	2.53	2.57	2.17
Viliya	2.04	2.18	2.28	2.10	2.37	2.99	2.59
Dnieper	2.08	1.97	2.00	2.07	2.02	2.06	2.05
Western Dvina	2.10	2.04	2.17	2.14	2.11	2.11	2.03
Western Bug	3.52	3.10	4.06	3.77	3.13	2.56	3.54
Mukhovets	2.08	1.75	1.84	2.18	2.21	1.77	2.50
Neman	2.05	2.16	2.13	2.27	2.13	2.40	2.38
Pripyat	2.31	2.62	2.60	2.56	2.56	2.40	2.44
Svisloch	2.47	2.45	2.28	2.38	2.52	2.47	2.39
Sozh	1.73	1.92	1.99	1.97	1.96	2.05	2.04

[1)] Water quality indicator is not more than 3 miligrammes O_2 per cubic decimetre for surface water bodies used for breeding, fattening, wintering, and migration of fish species of salmon and sturgeon; for other surface water bodies it is not more than 6 miligrammes O_2 per cubic decimetre.

7.20. Concentrations of contaminants in river water

	2013	2014	2015	2016	2017	2018	2019
Concentration of ammonium ions (in terms of nitrogen)[1], miligrammes N per cubic decimetre							
Berezina	0.55	0.50	0.50	0.47	0.49	0.34	0.33
Viliya	0.17	0.23	0.18	0.21	0.12	0.14	0.05
Dnieper	0.35	0.37	0.31	0.31	0.27	0.26	0.27
Western Dvina	0.23	0.26	0.22	0.21	0.16	0.17	0.16
Western Bug	0.36	0.60	0.43	0.42	0.41	0.36	0.25
Mukhovets	0.37	0.47	0.22	0.22	0.31	0.28	0.15
Neman	0.23	0.24	0.19	0.16	0.23	0.18	0.19
Pripyat	0.37	0.33	0.35	0.35	0.26	0.13	0.16
Svisloch	0.31	0.40	0.43	0.44	0.42	0.37	0.38
Sozh	0.34	0.34	0.29	0.27	0.26	0.23	0.24
Concentration of phosphate ions (in terms of phosphorus)[2], miligrammes P per cubic decimetre							
Berezina	0.10	0.08	0.09	0.09	0.08	0.08	0.08
Viliya	0.04	0.03	0.03	0.04	0.03	0.03	0.03
Dnieper	0.10	0.09	0.09	0.08	0.07	0.07	0.07
Western Dvina	0.05	0.04	0.04	0.06	0.06	0.05	0.05
Western Bug	0.14	0.16	0.16	0.15	0.12	0.11	0.16
Mukhovets	0.08	0.10	0.10	0.08	0.08	0.07	0.08
Neman	0.05	0.05	0.05	0.05	0.04	0.05	0.04
Pripyat	0.06	0.05	0.05	0.06	0.06	0.06	0.05
Svisloch	0.04	0.06	0.07	0.07	0.07	0.06	0.08
Sozh	0.08	0.08	0.08	0.07	0.06	0.07	0.06

Continued

	2013	2014	2015	2016	2017	2018	2019
	Concentration of nitrates (nitrate ions)[3], miligrammes NO_3 per cubic decimetre						
Berezina	5.22	4.56	5.27	7.18	6.15	4.70	5.22
Viliya	5.88	4.65	4.25	5.00	4.93	3.88	3.24
Dnieper	4.42	4.65	4.79	4.41	4.29	4.92	5.04
Western Dvina	2.92	2.04	2.04	2.81	2.46	2.04	2.16
Western Bug	6.37	5.54	3.86	6.46	5.53	7.14	6.57
Mukhovets	5.35	3.63	2.84	6.13	5.05	3.80	4.01
Neman	4.91	5.76	4.56	4.99	5.92	4.84	4.10
Pripyat	2.52	3.10	2.53	2.49	2.97	2.90	2.12
Svisloch	4.12	4.87	5.27	6.38	7.05	6.74	6.03
Sozh	3.72	3.85	4.39	3.93	3.76	4.49	4.58

[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)

	2013	2014	2015	2016	2017	2018	2019
Vygonoschanskoye	0.025	0.016	0.019	…	0.022	…	0.024
Drivyaty	0.009	0.012	0.014	…	0.017	…	0.007
Ezerishche	0.007	0.006	0.008	…	0.009	…	0.013
Lepelskoye	0.020	0.025	…	0.027	…	0.029	…
Losvido	0.010	0.011	0.024	…	0.020	…	0.023
Lukomskoye	0.030	0.015	…	0.017	…	0.007	…
Myadel	0.016	0.008	…	0.009	…	0.011	…
Myastro	0.017	0.004	0.006	…	0.007	…	0.009
Naroch	0.007	0.008	0.004	0.010	…	0.008	…
Nescherdo	0.013	0.010	…	0.014	…	0.010	…
Osveyskoye	0.008	0.016	0.005	…	0.008	…	0.004
Richy	0.006	0.012	0.007	…	0.010	…	0.004
Svir	0.013	0.008	0.005	…	0.005	…	0.005
Selyava	0.006	0.007	0.014	…	0.033	…	0.016
Snudy	0.006	0.011	0.006	0.009	…	0.004	…
Strusto	0.004	0.009	…	0.009	…	0.004	…
Chervonoye	0.064	0.080	0.038	…	0.048	…	0.066
Chernoye	0.007	0.021	0.019	0.036	0.019	0.011	0.014

[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)]

	2017		2018		2019	
	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)	22 047	125	17 785	118	17 751	210
Public water supply	74 557	434	67 542	643	69 289	839
Corporate water supply	29 316	242	29 505	380	28 689	342
Decentralised water supply sources	17 956	2 241	26 754	4 201	33 910	6 837
For sanitary chemical parametres						
Centralised water supply sources (groundwater)	20 101	7 646	17 348	5 975	15 834	6 605
Public water supply	52 286	9 378	57 626	9 070	50 948	10 145
Corporate water supply	30 408	6 092	29 009	5 158	27 292	5 538
Decentralised water supply sources	17 739	4 850	25 893	7 494	34 262	11 343

[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.

Agricultural 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)

	2014	2016	2017	2018	2019	2020	
						total	as % of total
Total land area	20 760	20 760	20 760	20 760	20 760	20 760	100
of which:							
agricultural land	8 726	8 582	8 540	8 502	8 460	8 391	40.4
forest land	8 631	8 742	8 769	8 774	8 791	8 814	42.5
land under swamps and water bodies	1 328	1 286	1 271	1 273	1 274	1 265	6.1
other land	2 075	2 150	2 180	2 212	2 235	2 291	11.0

8.2. Area of agricultural land by region

(as of January 1; thousand hectares)

	2014	2015	2016	2017	2018	2019	2020
				Total			
Republic of Belarus	8 726.4	8 632.3	8 581.9	8 540.2	8 501.6	8 460.1	8 390.6
Region:							
Brest	1 420.1	1 414.8	1 406.4	1 388.7	1 388.1	1 388.1	1 364.8
Vitebsk	1 502.4	1 490.0	1 474.3	1 467.2	1 454.8	1 435.4	1 425.2
Gomel	1 354.2	1 346.7	1 330.4	1 323.8	1 322.7	1 311.0	1 296.7
Grodno	1 243.0	1 236.5	1 233.0	1 230.8	1 218.2	1 217.8	1 214.3
Minsk	1 851.4	1 849.0	1 845.1	1 846.1	1 842.7	1 842.0	1 840.9
Mogilev	1 355.3	1 295.3	1 292.7	1 283.6	1 275.1	1 265.8	1 248.7
				of which arable			
Republic of Belarus	5 559.7	5 662.1	5 677.4	5 683.8	5 727.3	5 712.3	5 713.1
Region:							
Brest	820.4	828.4	832.3	834.4	835.2	835.0	842.9
Vitebsk	962.1	961.1	956.4	914.4	913.0	906.7	907.4
Gomel	820.2	863.8	881.3	914.2	916.2	911.5	909.5
Grodno	841.6	840.9	843.2	844.2	845.1	843.8	841.8
Minsk	1 253.6	1 316.4	1 313.0	1 316.0	1 350.9	1 349.8	1 348.5
Mogilev	861.8	851.5	851.2	860.6	866.9	865.5	863.0

8.3. Area of damaged land by region

(as of January 1; thousand hectares)

	2014	2015	2016	2017	2018	2019	2020
Republic of Belarus	26.6	26.4	26.9	27.3	26.1	25.4	25.1
Region:							
Brest	4.4	4.3	4.6	4.8	4.8	4.7	3.9
Vitebsk	4.2	4.5	4.6	5.3	4.7	4.6	4.9
Gomel	3.4	3.4	3.3	3.4	3.4	2.9	3.2
Grodno	4.4	4.5	4.8	4.6	4.5	4.6	4.5
Minsk	7.4	6.9	6.8	6.4	5.9	6.0	6.1
Mogilev	2.8	2.8	2.8	2.8	2.8	2.6	2.5

8.4. Area of reclaimed land

(as of January 1; thousand hectares)

	2014	2015	2016	2017	2018	2019	2020
Total land reclaimed	3 436.1	3 440.1	3 442.5	3 445.4	3 446.6	3 448.5	3 453.7
of which:							
drained	3 406.5	3 410.4	3 412.3	3 415.1	3 416.3	3 418.2	3 423.4
irrigated	29.6	29.7	30.2	30.3	30.3	30.3	30.3
of which agricultural land	2 940.5	2 910.1	2 908.1	2 904.7	2 902.0	2 895.9	2 882.1
of which:							
drained	2 910.9	2 880.4	2 877.9	2 874.4	2 871.7	2 865.6	2 851.8
irrigated	29.6	29.7	30.2	30.3	30.3	30.3	30.3
Share of reclaimed land in total land area, %	16.6	16.6	16.6	16.6	16.6	16.6	16.6
of which:							
drained	16.4	16.4	16.4	16.5	16.5	16.5	16.5
irrigated	0.2	0.1	0.1	0.1	0.1	0.1	0.1

8.5. Area of drained land by region

(as of January 1; thousand hectares)

	2014	2016	2017	2018	2019	2020	
						total	of which agricultural land
Republic of Belarus	3 406.5	3 412.3	3 415.1	3 416.3	3 418.2	3 423.4	2 851.8
Region:							
Brest	758.1	758.6	759.0	759.2	759.2	759.2	686.9
Vitebsk	626.6	628.3	628.9	629.3	630.3	630.9	508.9
Gomel	651.3	652.0	652.0	652.0	652.3	656.4	501.9
Grodno	329.8	331.5	331.6	331.6	331.6	331.7	293.9
Minsk	707.9	707.9	707.9	707.9	708.0	708.0	598.2
Mogilev	332.8	334.0	335.7	336.3	336.8	337.2	262.0

8.6. Area of irrigated agricultural land by region

(as of January 1; thousand hectares)

	2014	2015	2016	2017	2018	2019	2020
Republic of Belarus	29.6	29.7	30.2	30.3	30.3	30.3	30.3
Region:							
Brest	4.4	4.4	4.9	4.9	4.9	4.9	4.9
Vitebsk	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Gomel	4.2	4.3	4.3	4.4	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	15.5

8.7. Area of agricultural land withdrawn from productive turnover

(as of January 1)

	2014	2015	2016	2017	2018	2019	2020
Land withdrawn from productive turnover:							
thsd ha	13.5	3.2	5.2	2.1	1.5	1.1	1.2
as % of total land area	0.07	0.02	0.03	0.01	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)

	2013	2014	2015	2016	2017	2018	2019
Mineral fertilizers – total							
Republic of Belarus	188	162	148	112	110	121	120
Region:							
Brest	194	167	145	129	129	134	142
Vitebsk	177	131	104	59	57	69	63
Gomel	196	176	156	104	106	130	114
Grodno	215	201	187	134	156	178	181
Minsk	177	168	172	149	135	133	130
Mogilev	176	131	121	88	75	81	90

Continued

	2013	2014	2015	2016	2017	2018	2019
of which:							
nitrogenous							
Republic of Belarus	71	61	60	47	55	55	55
Region:							
Brest	66	63	61	53	60	58	59
Vitebsk	70	47	44	28	33	36	32
Gomel	73	63	66	43	55	57	53
Grodno	81	82	76	62	76	82	86
Minsk	67	63	65	58	63	59	61
Mogilev	69	48	45	34	41	37	42
phosphorous							
Republic of Belarus	27	20	18	10	10	14	12
Region:							
Brest	26	20	15	11	12	14	13
Vitebsk	26	13	14	4	4	6	7
Gomel	32	24	23	11	11	18	13
Grodno	31	27	23	10	15	16	14
Minsk	26	22	22	15	14	18	16
Mogilev	24	18	10	8	6	11	9
potassium							
Republic of Belarus	90	81	70	55	45	52	52
Region:							
Brest	101	84	69	65	57	62	69
Vitebsk	82	72	46	27	20	27	25
Gomel	91	89	67	50	40	55	48
Grodno	102	93	88	62	65	80	81
Minsk	85	84	84	75	57	55	53
Mogilev	83	64	66	46	28	33	39

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

(percent)

	2013	2014	2015	2016	2017	2018	2019
Republic of Belarus	85.0	83.1	83.5	80.2	79.9	79.7	80.5
Region:							
Brest	88.9	88.2	87.4	86.5	85.7	85.1	86.4
Vitebsk	83.9	79.2	77.1	71.2	68.8	70.7	69.1
Gomel	83.5	85.0	84.8	81.7	82.6	81.6	82.0
Grodno	85.3	84.9	83.8	80.4	82.1	84.2	85.8
Minsk	85.8	85.5	88.4	86.4	84.4	82.5	84.1
Mogilev	82.0	74.8	78.3	73.4	75.1	73.2	74.7

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

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

	2013	2014	2015	2016	2017	2018	2019
Mineral fertilizers – total							
Republic of Belarus	274	236	209	158	155	168	165
Region:							
Brest	301	266	230	200	197	206	218
Vitebsk	250	185	147	85	84	102	94
Gomel	321	280	237	155	152	185	163
Grodno	292	272	250	181	210	234	237
Minsk	243	232	223	192	177	173	166
Mogilev	257	192	169	126	105	114	125

Continued

	2013	2014	2015	2016	2017	2018	2019
of which:							
nitrogenous							
Republic of Belarus	101	87	83	65	76	76	76
Region:							
Brest	102	99	95	81	91	89	91
Vitebsk	93	64	60	39	48	51	46
Gomel	119	100	99	65	79	81	76
Grodno	110	108	100	82	101	106	111
Minsk	90	85	84	75	82	76	78
Mogilev	100	71	63	49	57	52	59
phosphorous							
Republic of Belarus	44	32	27	15	16	21	17
Region:							
Brest	47	35	26	19	20	24	22
Vitebsk	41	20	21	6	6	10	10
Gomel	55	40	36	17	16	26	18
Grodno	45	39	33	15	21	23	20
Minsk	38	31	31	21	19	25	21
Mogilev	39	28	15	12	9	16	12
potassium							
Republic of Belarus	129	117	99	77	63	72	72
Region:							
Brest	152	132	109	100	87	93	105
Vitebsk	115	101	66	40	30	41	37
Gomel	147	140	102	74	57	78	68
Grodno	136	125	117	84	88	105	105
Minsk	115	116	109	96	76	72	67
Mogilev	118	94	91	66	38	46	54

9.4. Application of organic fertilizers in agricultural organisations by region

(tonnes)

	2013	2014	2015	2016	2017	2018	2019
Per hectare of agricultural land							
Republic of Belarus	6.0	6.9	6.8	6.5	6.6	6.3	6.7
Region:							
Brest	8.7	9.3	9.4	8.6	9.0	8.8	9.4
Vitebsk	3.3	4.0	3.5	3.6	3.5	3.3	3.7
Gomel	4.8	6.7	6.0	5.9	5.5	5.4	5.4
Grodno	7.8	8.2	8.3	7.9	7.8	7.7	8.2
Minsk	6.4	7.4	7.5	7.2	8.0	7.4	8.0
Mogilev	5.6	6.2	6.4	5.9	5.7	5.1	5.3
Per hectare of arable land							
Republic of Belarus	9.6	10.7	10.3	9.7	9.8	9.2	9.8
Region:							
Brest	15.0	16.0	16.0	14.4	14.8	14.4	15.4
Vitebsk	5.2	6.1	5.3	5.4	5.5	5.1	5.6
Gomel	8.3	11.2	9.4	9.1	8.1	7.9	7.9
Grodno	11.6	12.0	12.1	11.4	11.4	11.1	11.7
Minsk	9.4	10.7	10.4	9.9	10.9	9.9	10.6
Mogilev	8.8	9.6	9.6	8.9	8.3	7.4	7.6

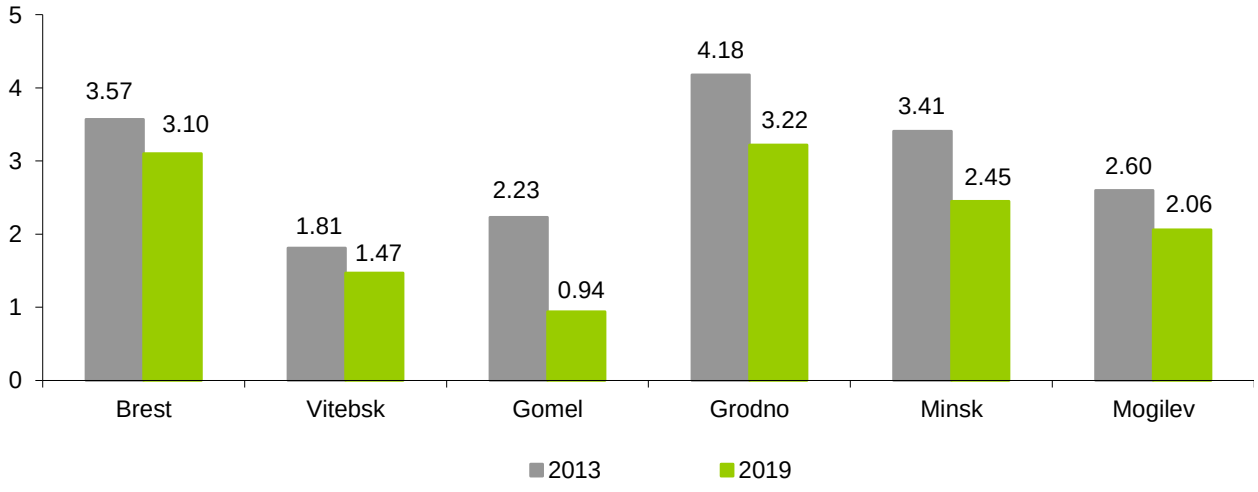
9.5. Application of pesticides per hectare of arable land by region

(kilogrammes)

	2013	2014	2015	2016	2017	2018	2019
Republic of Belarus	2.98	2.63	1.82	1.72	1.88	1.99	2.19
Region:							
Brest	3.57	3.55	2.48	2.40	2.69	2.89	3.10
Vitebsk	1.81	1.63	1.15	1.07	1.33	1.56	1.47
Gomel	2.23	1.71	1.21	0.84	1.00	0.78	0.94
Grodno	4.18	3.72	2.76	2.68	2.91	3.28	3.22
Minsk	3.41	3.16	2.18	2.24	2.14	2.31	2.45
Mogilev	2.60	1.95	1.15	0.95	1.24	1.15	2.06

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)

	2015	2017	2018	2019	2020		
					number of areas	total area, thsd ha	share of specially protected natural areas in total country area, %
Total specially protected natural areas	1 231	1 287	1 285	1 289	1 297	1 870.1	9.0
of which:							
nature reserves, national parks	5	5	5	5	5	475.5	2.3
refuges	352	376	376	381	381	1 381.1	6.7
national significance	85	98	99	99	99	971.0	4.7
local significance	267	278	277	282	282	410.1	2.0
natural monuments	874	906	904	903	911	13.5	0.1
national significance	306	329	326	326	326	3.5	0.0
local significance	568	577	578	577	585	10.0	0.0

10.2. Specially protected natural areas by regions and Minsk city as of January 1, 2020

	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	475.5	2.3	99	971.0	4.7
Regions and Minsk city:						
Brest	1	86.3	2.6	18	344.7	10.5
Vitebsk	3	132.4	3.3	25	193.1	4.8
Gomel	1	88.0	2.2	13	111.6	2.8
Grodno	2	64.0	2.5	15	130.6	5.2
Minsk city	–	–	–	2	0.5	1.4
Minsk	2	104.8	2.6	23	125.4	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	410.1	2.0	326	585
Regions and Minsk city:					
Brest	32	57.2	1.7	29	77
Vitebsk	64	65.9	1.6	86	141
Gomel	43	96.9	2.4	13	53
Grodno	28	55.0	2.2	95	121
Minsk city	–	–	–	2	8
Minsk	50	68.3	1.7	87	108
Mogilev	65	66.8	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.

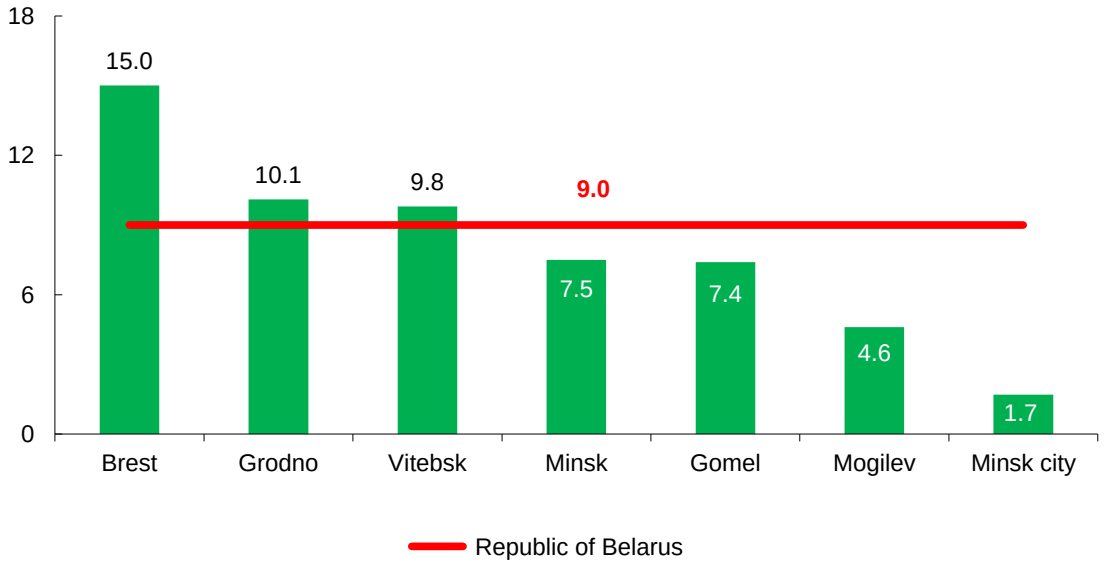
10.3. Proportion of specially protected natural areas in the total area of the country, regions and Minsk city

(as of January 1; percent)

	2014	2015	2016	2017	2018	2019	2020
Republic of Belarus	7.8	8.2	8.8	8.7	8.7	8.9	9.0
Regions and Minsk city:							
Brest	14.0	14.1	14.2	14.4	14.4	14.7	15.0
Vitebsk	8.8	8.8	9.5	9.5	9.5	9.7	9.8
Gomel	5.7	6.8	7.4	7.4	7.4	7.4	7.4
Grodno	9.9	9.8	9.9	10.1	10.1	10.1	10.1
Minsk city	0.4	0.4	1.7	1.7	1.7	1.7	1.7
Minsk	6.4	6.9	7.6	7.6	7.6	7.6	7.5
Mogilev	2.3	3.8	4.4	3.0	3.5	4.6	4.6

10.4. Proportion of specially protected natural areas in the area of the country, regions and Minsk city as of January 1, 2020

(percent)



10.5. Main characteristics of nature reserves and national parks

(as of January 1, 2020)

	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**	86.1	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**	64.2	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)

	2013	2014	2015	2016	2017	2018	2019
Plants – total	293	303	303	303	303	303	303
of which:							
angiosperms	166	173	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	34	34	34	34	34	34
lichens	24	25	25	25	25	25	25
algae	21	21	21	21	21	21	21
fungi	35	34	34	34	34	34	34
Mammals	17	20	20	20	20	20	20
Birds	71	70	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	9	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 types.

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.

Data for the Minsk region are presented taking into account data for the Minsk city.

11.1. Forest stock land by region[1)]

(as of January 1; thousand hectares)

	2014	2015	2016	2017	2018	2019	2020
Total area of forest stock							
Republic of Belarus	9 477.1	9 499.5	9 549.2	9 565.8	9 582.0	9 598.5	9 620.9
Region:							
Brest	1 410.4	1 411.1	1 414.1	1 414.7	1 416.5	1 421.7	1 421.9
Vitebsk	1 855.1	1 866.4	1 885.6	1 889.3	1 892.7	1 894.5	1 896.9
Gomel	2 262.0	2 270.9	2 282.9	2 284.3	2 284.5	2 291.7	2 298.6
Grodno	989.2	989.1	989.3	990.1	996.1	996.6	999.1
Minsk	1 714.4	1 713.9	1 715.2	1 723.7	1 727.0	1 727.1	1 734.3
Mogilev	1 246.1	1 248.1	1 262.2	1 263.7	1 265.1	1 266.9	1 270.2
of which forest-covered area							
Republic of Belarus	8 160.4	8 204.1	8 239.8	8 259.4	8 260.9	8 256.9	8 280.3
Region:							
Brest	1 184.1	1 186.7	1 188.6	1 187.4	1 185.7	1 193.6	1 192.8
Vitebsk	1 592.6	1 616.0	1 633.5	1 641.8	1 644.3	1 646.8	1 655.7
Gomel	1 880.5	1 892.3	1 896.3	1 902.4	1 890.4	1 879.1	1 882.9
Grodno	880.7	882.6	883.0	883.5	897.9	897.9	897.7
Minsk	1 528.2	1 527.0	1 532.7	1 535.9	1 533.1	1 527.6	1 534.6
Mogilev	1 094.3	1 099.5	1 105.6	1 108.6	1 109.5	1 111.9	1 116.7

[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)

	2014	2015	2016	2017	2018	2019	2020
Republic of Belarus	39.3	39.5	39.7	39.8	39.8	39.8	39.9
Brest region	36.1	36.2	36.3	36.3	36.2	36.4	36.4
District:							
Baranovichy	30.3	30.4	30.5	30.6	30.5	30.7	30.6
Bereza	25.8	25.7	25.6	25.6	25.5	25.4	25.4
Brest	33.4	33.5	33.5	33.4	33.7	33.6	33.6
Gantsevichy	53.4	53.3	53.4	53.4	53.5	56.8	56.5
Drogichin	25.9	26.2	26.1	26.1	26.0	25.9	26.1
Zhabinka	18.7	18.8	18.7	18.7	18.7	18.7	18.7
Ivanovo	27.6	27.9	28.1	28.1	28.2	28.5	28.5
Ivatsevichy	49.1	49.1	49.0	49.0	48.9	49.3	49.1
Kamenets	28.3	28.4	28.4	28.4	28.4	29.0	28.9
Kobrin	26.7	26.9	27.0	27.0	26.9	26.7	26.6
Luninets	43.7	43.6	43.7	43.7	43.7	43.3	43.1
Lyakhovichy	37.2	37.3	37.3	37.3	37.3	37.0	36.7
Malorita	46.9	47.3	47.4	47.3	47.4	47.1	47.2
Pinsk	30.6	30.7	30.7	30.7	30.4	30.7	30.9
Pruzhany	41.5	41.6	42.0	43.3	43.3	43.5	43.4
Stolin	36.9	36.9	36.9	36.9	36.7	36.5	37.2

Continued

	2014	2015	2016	2017	2018	2019	2020
Vitebsk region	39.8	40.3	40.8	40.8	41.0	41.1	41.3
District:							
Beshenkovichy	27.1	27.6	27.7	27.7	27.8	28.3	28.8
Braslav	35.4	35.3	35.3	35.3	35.3	34.7	34.8
Verkhnedvinsk	39.9	40.3	40.9	40.9	40.9	40.8	41.2
Vitebsk	36.9	37.2	37.6	37.6	37.5	37.5	37.8
Glubokoye	26.9	26.9	27.6	27.6	27.6	27.6	27.8
Gorodok	52.7	52.7	54.7	54.7	55.0	55.0	55.7
Dokshitsy	49.3	49.3	49.7	49.7	51.4	51.5	51.6
Dubrovno	25.4	25.4	26.4	26.4	26.6	26.4	27.1
Lepel	53.7	53.8	53.9	53.9	53.8	53.9	55.1
Liozno	42.6	44.8	44.8	44.8	44.8	45.0	45.4
Miory	26.1	26.3	26.3	26.3	26.3	26.7	26.7
Orsha	22.2	22.2	22.7	22.7	22.7	22.5	22.7
Polotsk	54.4	54.8	55.1	55.2	55.2	55.9	55.9
Postavy	34.0	34.0	34.0	34.0	34.6	34.5	34.8
Rossony	66.1	71.2	71.3	71.3	71.4	71.3	71.3
Senno	37.3	37.6	39.2	39.2	39.2	39.2	39.3
Tolochin	29.6	32.0	32.4	32.4	32.5	33.0	32.9
Ushachy	41.7	41.9	42.5	42.5	42.7	43.4	43.6
Chashniki	29.2	29.3	29.3	29.3	29.4	29.7	30.1
Sharkovshchina	24.2	24.2	24.2	24.2	25.0	25.1	25.2
Shumilino	42.5	42.8	42.8	42.8	42.7	42.6	42.5

Continued

	2014	2015	2016	2017	2018	2019	2020
Gomel region	46.6	46.9	47.0	46.9	47.1	46.4	46.6
District:							
Bragin	36.8	37.1	37.2	37.2	37.3	36.1	37.9
Buda-Koshelyovo	23.0	23.1	23.3	23.3	23.6	23.8	24.1
Vetka	43.9	44.5	45.0	45.0	46.4	46.7	47.9
Gomel	35.1	35.3	35.5	35.9	35.7	35.3	35.1
Dobrush	25.2	25.2	25.3	25.3	25.6	25.5	25.7
Yelsk	56.6	56.7	56.6	56.6	56.7	56.2	56.2
Zhitkovichy	54.5	54.6	54.6	54.6	54.7	54.8	55.1
Zhlobin	34.1	34.5	34.5	34.5	34.4	33.5	33.3
Kalinkovichy	50.0	50.1	50.1	50.1	50.2	49.1	49.2
Korma	30.2	30.5	33.2	33.2	33.3	32.8	33.0
Lelchitsy	69.0	69.1	69.2	69.2	69.1	68.2	68.6
Loyev	35.8	36.4	36.6	36.6	37.1	35.7	35.4
Mozyr	52.6	53.6	53.8	53.8	53.3	52.2	51.7
Narovlya	63.7	64.4	64.5	64.5	64.7	64.1	66.2
Oktyabrsky	56.7	56.7	56.7	56.7	56.6	55.4	54.9
Petrikov	53.8	55.0	55.2	55.2	55.3	54.5	54.9
Rechitsa	43.6	43.7	43.6	43.6	43.6	42.1	41.6
Rogachev	33.6	33.7	33.8	33.8	33.8	33.3	33.1
Svetlogorsk	51.0	50.9	50.9	50.9	51.5	50.5	50.1
Khoyniki	48.4	48.4	47.3	47.3	47.6	47.3	48.0
Chechersk	48.8	49.0	49.0	49.0	49.0	48.3	48.2

Continued

	2014	2015	2016	2017	2018	2019	2020
Grodno region	35.0	35.1	35.1	35.1	35.2	35.7	35.7
District:							
Berestovitsa	15.3	15.3	15.3	15.3	15.2	15.1	15.0
Volkovysk	23.1	23.0	22.9	22.9	22.9	22.8	22.6
Voronovo	26.9	26.9	27.0	27.0	27.0	27.4	27.5
Grodno	38.0	38.0	37.9	37.8	37.7	37.7	37.5
Dyatlovo	44.6	44.8	45.0	45.0	45.0	46.4	46.3
Zelva	16.4	16.6	16.5	16.5	17.3	17.4	17.4
Ivye	44.3	44.4	44.5	44.5	44.5	45.4	45.0
Korelichy	20.5	20.6	20.7	20.7	20.7	21.2	21.1
Lida	26.2	26.2	26.2	26.2	26.1	27.4	27.6
Mosty	34.6	34.7	34.7	34.7	34.7	35.1	35.2
Novogrudok	40.7	40.9	41.2	41.2	41.2	41.8	41.8
Ostrovets	48.7	48.7	48.7	48.7	48.7	48.7	48.7
Oshmyany	33.8	33.9	34.1	34.1	34.0	35.4	35.5
Svisloch	47.2	47.2	47.1	47.1	47.3	48.2	48.4
Slonim	36.3	36.6	36.5	36.5	36.6	36.2	36.1
Smorgon	37.1	37.3	37.4	37.4	37.4	38.5	39.1
Shchuchin	32.7	32.6	32.5	32.5	32.4	33.3	33.4

Continued

	2014	2015	2016	2017	2018	2019	2020
Minsk region	38.0	38.0	38.1	38.2	38.1	38.0	38.2
District:							
Berezino	48.7	49.2	49.6	49.6	50.8	51.3	51.9
Borisov	50.7	50.7	51.5	51.5	51.5	51.4	51.1
Vileyka	40.6	40.7	40.7	40.7	40.7	40.6	42.1
Volozhin	36.9	37.0	37.0	37.0	37.1	36.9	37.8
Dzerzhinsk	29.3	29.4	29.1	29.1	29.1	28.9	29.1
Kletsk	25.8	25.8	25.7	25.7	25.7	25.3	25.4
Kopyl	17.7	17.7	17.8	17.8	18.1	17.7	17.5
Krupki	48.4	48.2	48.2	50.7	50.7	50.8	50.8
Logoysk	49.9	48.8	48.8	48.8	49.4	50.3	50.1
Lyuban	37.2	37.3	37.5	37.5	37.9	36.3	36.0
Minsk	26.1	26.1	26.1	26.1	26.0	26.1	26.1
Molodechno	31.2	31.3	31.5	31.5	31.6	31.8	31.8
Myadel	42.2	42.2	42.2	42.2	42.2	42.1	42.0
Nesvizh	11.1	11.1	11.1	11.1	11.1	11.0	11.3
Pukhovichy	39.2	39.2	39.2	39.2	39.3	39.2	39.5
Slutsk	21.7	21.7	21.6	21.6	22.1	21.5	21.5
Smolevichy	33.3	33.3	33.0	33.0	28.9	28.5	29.3
Soligorsk	35.4	35.4	35.5	35.5	35.3	34.5	34.6
Staryie Dorogi	49.9	49.8	49.8	49.8	50.5	48.9	48.6
Stolbtsy	46.1	46.2	46.3	46.3	46.4	46.3	46.9
Uzda	39.5	39.4	39.4	39.4	39.4	39.0	39.0
Cherven	39.3	39.2	40.5	40.5	38.3	37.3	38.5

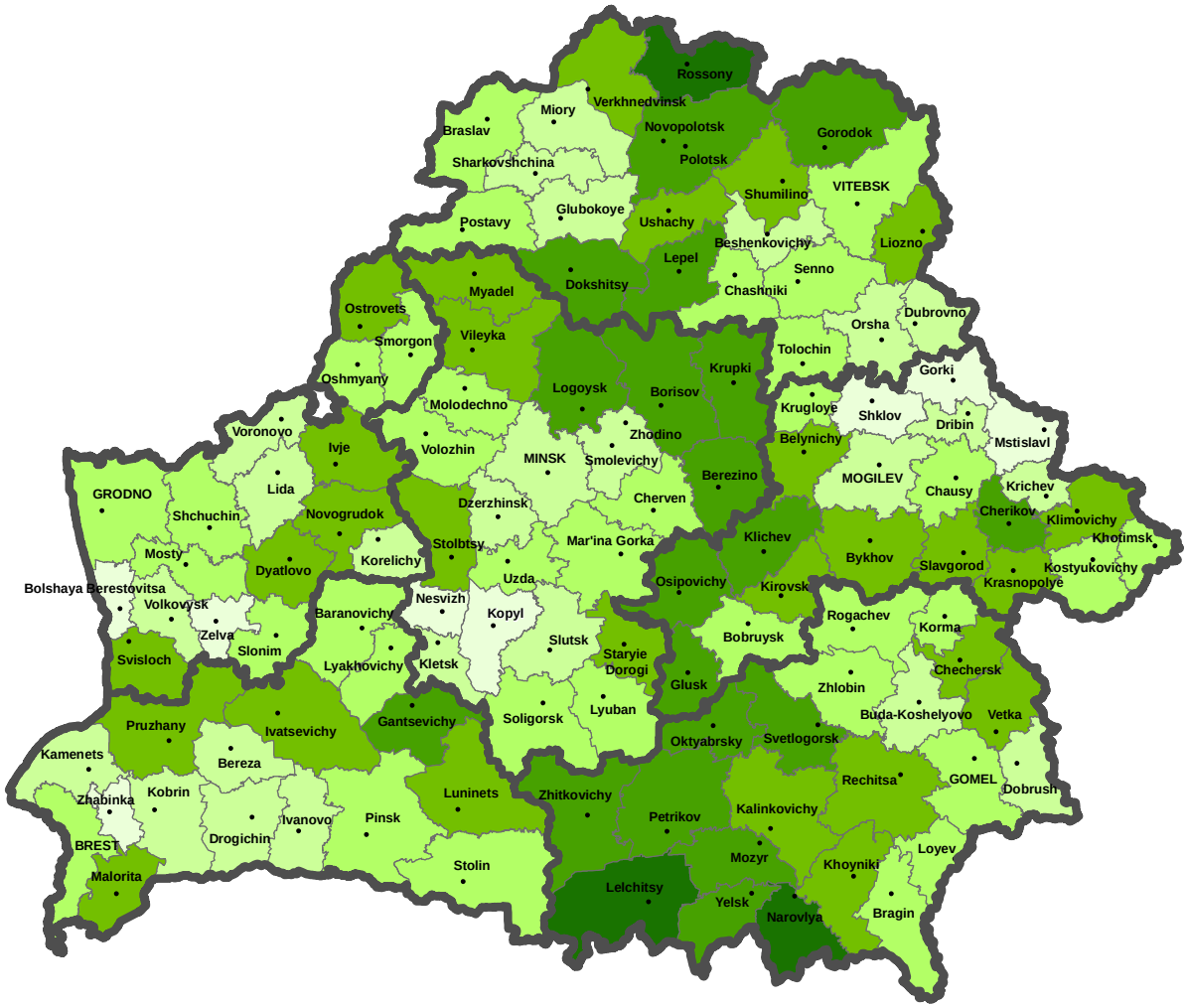
Continued

	2014	2015	2016	2017	2018	2019	2020
Mogilev region	38.5	37.8	38.0	38.1	38.2	38.0	38.4
District:							
Belynichy	44.9	45.0	45.3	45.3	45.3	45.0	45.8
Bobruysk	37.3	37.4	37.4	37.5	37.5	37.4	37.2
Bykhov	44.0	44.1	44.3	44.3	44.5	44.2	44.4
Glusk	52.7	52.7	52.8	52.8	52.7	51.9	51.8
Gorki	16.2	16.4	16.5	16.5	16.6	16.4	16.6
Dribin	26.6	26.9	27.1	27.1	27.1	26.9	27.9
Kirovsk	40.4	40.4	40.4	40.4	40.5	40.2	40.3
Klimovichy	40.7	41.0	41.1	41.4	41.8	41.7	41.8
Klichev	57.5	57.7	58.5	58.6	58.9	58.4	58.7
Kostyukovichy	34.0	33.8	34.0	34.0	33.9	33.9	35.6
Krasnopolye	45.5	46.0	46.0	46.0	46.1	46.1	46.6
Krichev	24.8	25.0	25.2	25.2	25.1	25.5	25.5
Krugloye	30.6	30.6	31.0	32.0	30.6	30.5	30.7
Mogilev	24.4	24.9	25.1	25.2	25.4	25.4	26.0
Mstislavl	15.9	16.0	16.2	16.2	16.4	16.4	17.1
Osipovichy	56.9	57.0	56.7	56.7	56.5	56.2	56.7
Slavgorod	42.7	42.9	43.0	43.0	43.0	43.1	43.1
Khotimsk	33.4	33.3	33.3	33.3	33.3	33.3	34.7
Chausy	30.5	30.8	31.6	31.6	32.0	32.3	32.4
Cherikov	49.3	50.0	50.6	50.6	51.0	51.3	51.7
Shklov	17.9	18.1	18.3	18.3	18.2	18.1	18.3

[1)] Data of the Ministry of Forestry.

11.3. Forest cover of the territory by districts as of January 1, 2020[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

	2013	2014	2015	2016	2017	2018	2019
Reforestation and afforestation, ha:	30 284	32 374	33 094	37 179	40 408	43 442	54 040
assistance to natural forest regeneration and preservation of undergrowth	6 534	6 127	6 608	5 603	6 224	6 946	8 626
forest planting and seeding	23 750	26 247	26 486	31 576	34 184	36 496	45 414
Introduction of forest plantations in the category of valuable forest plantations, ha	58 369	59 237	54 039	44 537	39 712	36 263	30 483
Seed harvesting of wood and shrub species, t	174.5	86.1	162.1	27.6	44.7	258.4	46.2
Forest felling area[1)], thsd ha	535.3	523.9	466.9	487.5	451.0	499.1	489.1
Marketable timber harvested[1)], thsd m^3	18 521	19 550	18 473	21 071	23 801	28 590	26 996
Forest pest and disease control, ha:							
biological	35 103	23 904	22 458	21 640	23 528	47 266	27 179
chemical	556	356	357	1 367	1 052	675	6 047
Forest fire control with the aid of aviation, thsd ha	9 410	9 420	9 461	9 526	9 560	9 570	9 315

Continued

	2013	2014	2015	2016	2017	2018	2019
			As % of previous year				
Reforestation and afforestation	97.2	106.9	102.2	112.3	108.7	107.5	124.4
Introduction of forest plantations in the category of valuable forest plantations	111.6	101.5	91.2	82.4	89.2	91.3	84.1
Seed harvesting of wood and bush species	94.4	49.3	188.3	17.0	162.2	577.9	17.9
Forest felling area	98.2	97.9	89.1	104.4	92.5	110.7	98.0
Marketable timber harvested	102.6	105.6	94.5	114.1	113.0	120.1	94.4
Forest pest and disease control							
biological	148.3	68.1	94.0	96.4	108.7	200.9	57.5
chemical	83.7	64.0	100.3	382.9	77.0	64.1	896.2
			As % of 2015				
Reforestation and afforestation	–	–	100	112.3	122.1	131.3	163.3
Introduction of forest plantations in the category of valuable forest plantations	–	–	100	82.4	73.5	67.1	56.4
Seed harvesting of wood and bush species	–	–	100	17.0	27.6	159.4	28.5
Forest felling area	–	–	100	104.4	96.6	106.9	104.7
Marketable timber harvested	–	–	100	114.1	128.8	154.8	146.1
Forest pest and disease control							
biological	–	–	100	96.4	104.8	210.5	121.0
chemical	–	–	100	382.9	294.8	189.1	1 694.4

[1)] Data of the Ministry of Forestry.

11.5. Reforestation and afforestation by region

	2013	2014	2015	2016	2017	2018	2019
Total, hectares							
Republic of Belarus	30 284	32 374	33 094	37 179	40 408	43 442	54 040
Region:							
Brest	3 963	3 574	3 383	3 762	3 753	6 525	7 393
Vitebsk	5 825	6 144	6 048	6 122	5 922	5 487	5 401
Gomel	6 985	7 329	7 509	8 896	11 963	13 441	19 962
Grodno	3 775	4 214	3 810	3 476	2 651	3 405	3 860
Minsk	5 424	5 668	5 471	8 570	10 411	8 979	10 230
Mogilev	4 312	5 445	6 873	6 353	5 708	5 605	7 194
of which:							
assistance to natural forest regeneration and preservation of undergrowth							
Republic of Belarus	6 534	6 127	6 608	5 603	6 224	6 946	8 626
Region:							
Brest	1 127	834	662	642	853	1 270	1 457
Vitebsk	2 067	1 934	1 892	1 692	1 362	1 495	1 294
Gomel	1 093	971	1 117	1 179	1 377	1 482	2 421
Grodno	659	502	522	389	390	433	633
Minsk	653	936	1 103	764	1 117	1 116	1 297
Mogilev	935	950	1 312	937	1 125	1 150	1 524
forest planting and seeding							
Republic of Belarus	23 750	26 247	26 486	31 576	34 184	36 496	45 414
Region:							
Brest	2 836	2 740	2 721	3 120	2 900	5 255	5 936
Vitebsk	3 758	4 210	4 156	4 430	4 560	3 992	4 107
Gomel	5 892	6 358	6 392	7 717	10 586	11 959	17 541
Grodno	3 116	3 712	3 288	3 087	2 261	2 972	3 227
Minsk	4 771	4 732	4 368	7 806	9 294	7 863	8 933
Mogilev	3 377	4 495	5 561	5 416	4 583	4 455	5 670

Continued

	2013	2014	2015	2016	2017	2018	2019
of which using selected planting and improved seeding stock							
Republic of Belarus	9 161	9 915	10 611	12 908	15 512	18 977	25 740
Region:							
Brest	1 150	1 170	1 201	1 204	1 422	2 485	3 467
Vitebsk	1 504	1 572	1 510	1 890	2 381	2 469	2 805
Gomel	1 386	1 425	1 836	2 924	4 915	6 236	9 832
Grodno	1 713	2 037	1 705	1 630	1 318	1 619	1 854
Minsk	1 918	2 053	2 012	2 788	2 779	3 678	4 694
Mogilev	1 490	1 658	2 347	2 472	2 697	2 490	3 088

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

(hectares)

	2013	2014	2015	2016	2017	2018	2019
Republic of Belarus	58 369	59 237	54 039	44 537	39 712	36 263	30 483
Region:							
Brest	6 429	7 246	5 715	3 748	3 449	3 548	3 542
Vitebsk	10 509	10 461	10 860	9 735	7 754	6 817	4 738
Gomel	15 122	14 644	13 110	11 355	10 141	9 449	7 226
Grodno	6 745	5 353	4 561	2 913	3 745	4 378	3 976
Minsk	8 283	8 720	8 687	7 877	7 781	6 596	5 443
Mogilev	11 281	12 813	11 106	8 909	6 842	5 475	5 558

11.7. Seed harvesting of wood and shrub species by region

(tonnes)

	2013	2014	2015	2016	2017	2018	2019
Total							
Republic of Belarus	174.5	86.1	162.1	27.6	44.7	258.4	46.2
Region:							
Brest	9.4	8.1	11.2	3.3	11.6	20.7	6.1
Vitebsk	5.7	7.0	13.2	3.9	3.0	16.3	1.7
Gomel	80.4	27.6	87.0	3.4	10.2	75.0	23.6
Grodno	11.7	6.2	6.5	4.4	7.0	20.0	3.6
Minsk	25.0	14.3	19.1	8.5	8.2	45.1	7.6
Mogilev	42.3	22.9	25.1	4.1	4.7	81.3	3.6
of which: Coniferous species							
Republic of Belarus	3.6	11.4	31.5	7.0	15.1	7.6	12.6
Region:							
Brest	0.9	1.5	1.5	0.6	1.4	0.7	2.8
Vitebsk	0.1	1.3	11.6	0.8	2.3	0.4	0.3
Gomel	1.1	2.7	2.9	1.9	3.6	2.7	4.1
Grodno	0.5	1.0	2.9	0.3	1.6	1.1	0.9
Minsk	0.6	2.5	7.3	1.5	3.0	1.7	3.2
Mogilev	0.4	2.3	5.3	2.0	3.1	1.0	1.2
of which: pine tree							
Republic of Belarus	3.3	10.9	7.2	6.2	11.2	6.4	12.5
Region:							
Brest	0.9	1.5	0.8	0.5	1.1	0.7	2.8
Vitebsk	0.1	1.3	0.4	0.4	0.7	0.2	0.3
Gomel	1.0	2.7	2.8	1.9	3.6	2.7	4.1
Grodno	0.4	1.0	0.4	0.3	0.9	0.3	0.9
Minsk	0.5	2.5	0.9	1.1	2.0	1.4	3.2
Mogilev	0.3	1.9	2.0	1.9	2.9	1.0	1.2

Continued

	2013	2014	2015	2016	2017	2018	2019
				spruce			
Republic of Belarus	0.3	0.5	24.3	0.8	3.8	1.2	0.0
Region:							
Brest	–	–	0.6	0.1	0.2	0.0	–
Vitebsk	0.0	0.0	11.2	0.3	1.6	0.2	–
Gomel	0.0	0.0	0.1	0.0	0.1	0.0	0.0
Grodno	0.0	–	2.5	0.0	0.7	0.8	0.0
Minsk	0.1	0.0	6.5	0.4	1.0	0.2	–
Mogilev	0.1	0.5	3.3	0.0	0.2	–	0.0
				Deciduous and shrub species			
Republic of Belarus	170.9	74.7	130.6	20.6	29.6	250.8	33.6
Region:							
Brest	8.5	6.6	9.8	2.8	10.2	20.0	3.4
Vitebsk	5.6	5.7	1.6	3.1	0.7	16.0	1.5
Gomel	79.4	24.9	84.1	1.5	6.5	72.3	19.4
Grodno	11.2	5.2	3.6	4.1	5.4	18.9	2.7
Minsk	24.3	11.9	11.8	7.0	5.1	43.4	4.4
Mogilev	41.8	20.5	19.8	2.2	1.7	80.3	2.3
				of which oak			
Republic of Belarus	163.1	66.0	122.1	12.7	23.6	239.9	22.6
Region:							
Brest	7.1	5.2	8.2	1.2	9.5	18.5	2.1
Vitebsk	5.1	4.7	0.7	2.4	0.2	14.6	–
Gomel	78.1	23.4	83.1	0.6	5.7	70.8	17.6
Grodno	10.3	3.7	2.4	2.8	4.7	17.3	0.9
Minsk	21.1	9.0	8.6	4.4	3.4	41.0	0.9
Mogilev	41.4	19.9	19.0	1.3	0.1	77.6	1.1

11.8. Forest felling area by region[1)]

(thousand hectares)

	2013	2014	2015	2016	2017	2018	2019
All cutting types							
Republic of Belarus	535.3	523.9	466.9	487.5	451.0	499.1	489.1
Region:							
Brest	107.8	99.8	91.0	91.9	89.4	98.8	91.3
Vitebsk	63.6	65.2	58.9	60.0	58.7	64.2	62.8
Gomel	117.5	100.4	86.3	87.5	80.5	90.6	96.4
Grodno	56.0	57.9	48.6	44.5	41.9	52.7	48.7
Minsk	119.4	125.0	112.3	128.7	115.5	117.1	107.4
Mogilev	70.9	75.5	69.9	74.9	65.1	75.6	82.4
of which final cutting							
Republic of Belarus	30.5	37.5	31.3	25.1	25.0	27.1	37.8
Region:							
Brest	4.2	6.7	4.2	3.3	3.0	2.6	3.8
Vitebsk	6.1	7.4	6.3	4.9	5.5	7.9	9.0
Gomel	7.8	8.3	6.8	6.9	6.0	4.7	7.6
Grodno	2.4	2.5	2.3	1.7	2.1	2.7	4.3
Minsk	6.4	6.9	5.8	3.8	4.2	5.4	7.5
Mogilev	3.5	5.7	6.0	4.5	4.2	3.8	5.6

[1)] Data of the Ministry of Forestry.

11.9. Marketable timber harvested by region[1)]

(thousand cubic metres)

	2013	2014	2015	2016	2017	2018	2019
All cutting types							
Republic of Belarus	18 521	19 550	18 473	21 071	23 801	28 590	26 996
Region:							
Brest	2 204	2 298	2 357	2 414	3 215	3 610	3 554
Vitebsk	3 336	3 406	3 339	2 987	3 208	3 811	3 892
Gomel	3 983	4 149	3 790	3 940	6 496	8 602	6 627
Grodno	1 989	2 184	1 976	1 953	2 070	2 442	2 879
Minsk	3 735	3 846	3 600	6 350	5 389	5 735	5 497
Mogilev	3 273	3 669	3 412	3 427	3 423	4 390	4 547
of which final cutting							
Republic of Belarus	7 143	7 786	7 480	6 062	6 293	7 055	9 397
Region:							
Brest	839	842	849	716	656	631	841
Vitebsk	1 415	1 489	1 495	1 130	1 335	1 993	2 193
Gomel	1 853	1 868	1 634	1 638	1 528	1 202	1 782
Grodno	637	666	603	492	600	736	1 111
Minsk	1 481	1 557	1 462	936	1 095	1 468	2 006
Mogilev	918	1 364	1 437	1 150	1 078	1 026	1 464

[1)] Data of the Ministry of Forestry.

11.10. Forest pest and disease control by region

(hectares)

	2013	2014	2015	2016	2017	2018	2019
Biological control							
Republic of Belarus	35 103	23 904	22 458	21 640	23 528	47 266	27 179
Region:							
Brest	13 962	2 876	3 024	2 670	2 751	2 693	2 611
Vitebsk	3 017	3 161	2 767	2 584	2 944	3 583	3 446
Gomel	8 416	7 329	7 400	6 807	6 846	7 270	6 921
Grodno	2 937	3 730	2 719	2 712	3 507	3 967	4 062
Minsk	4 354	4 315	4 133	4 414	4 262	26 147	6 150
Mogilev	2 417	2 492	2 416	2 453	3 219	3 606	3 988
Chemical control							
Republic of Belarus	556	356	357	1 367	1 052	675	6 047
Region:							
Brest	40	34	31	479	675	83	910
Vitebsk	59	87	78	86	94	163	261
Gomel	249	27	28	505	46	101	2 311
Grodno	33	32	39	58	59	75	387
Minsk	109	112	99	131	97	163	1 937
Mogilev	66	64	83	108	82	90	241

11.11. Pest-affected forest area

(end of year; hectares)

	2013	2014	2015	2016	2017	2018	2019
Total pest-affected area	193 881	191 905	176 753	178 938	206 474	152 648	156 240
of which with:							
needle-eating pests	575	335	691	975	35 855	5 228	9 937
leaf-eating pests	11 007	8 526	2 668	1 377	867	309	365
other pests	1 883	2 511	2 383	4 060	9 975	7 152	5 314
forest diseases	180 416	180 533	171 011	172 526	159 777	139 959	140 624
of which with pine fungus	137 317	138 503	130 984	132 957	123 599	103 481	106 789

11.12. Area of forest loss by region

(hectares)

	2013	2014	2015	2016	2017	2018	2019
Republic of Belarus	8 222	8 594	13 660	27 206	35 367	49 966	33 759
Region:							
Brest	686	764	1 978	2 913	6 394	8 141	5 990
Vitebsk	1 775	1 319	1 250	1 341	1 006	838	880
Gomel	704	1 578	6 369	4 012	16 075	22 718	13 672
Grodno	875	1 215	1 039	1 350	1 275	2 207	2 344
Minsk	972	1 145	983	14 440	7 188	9 183	5 790
Mogilev	3 210	2 572	2 041	3 150	3 429	6 879	5 083

11.13. Area of forest loss by cause

(hectares)

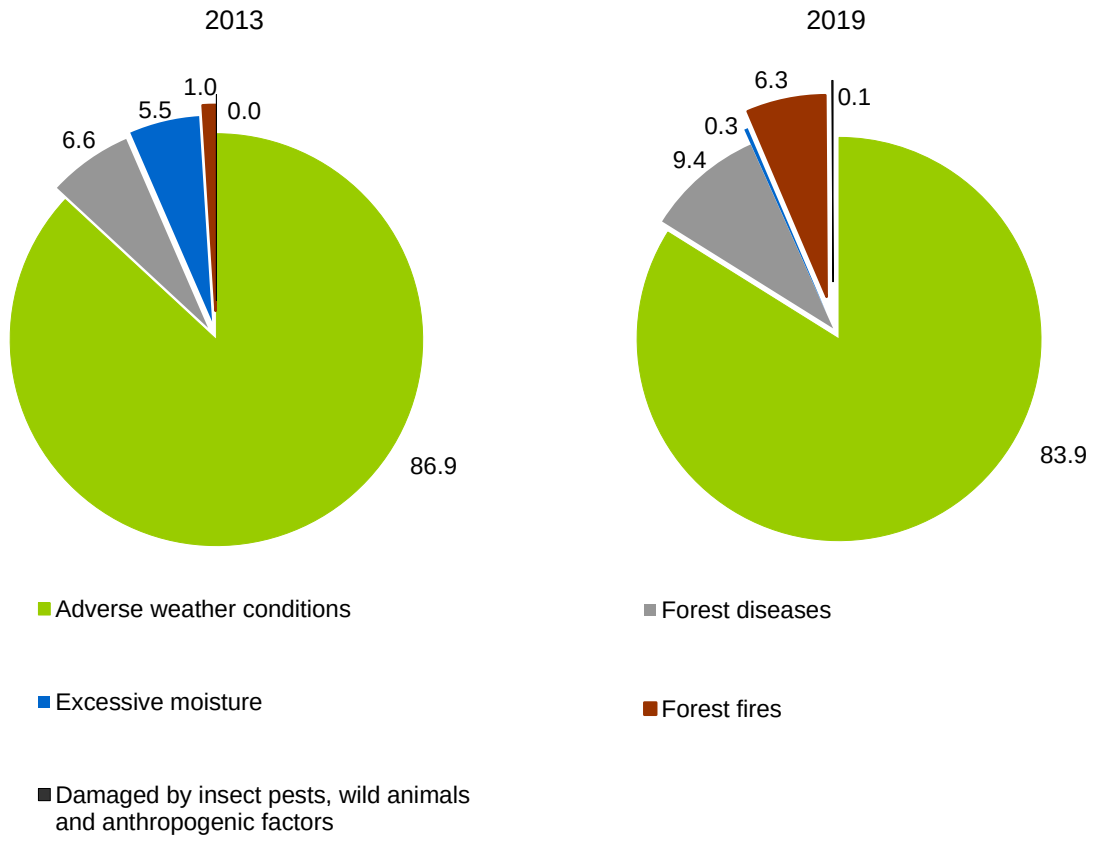
	2013	2014	2015	2016	2017	2018	2019
Total							
Total forest loss	8 222	8 594	13 660	27 206	35 367	49 966	33 759
of which by cause:							
damaged by insect pests	2	24	8	–	4	6	33
damaged by wild animals	–	2	–	5	1	–	7
forest diseases	541	697	985	1 554	2 336	5 122	3 179
anthropogenic factors	–	1	–	–	9	–	–
adverse weather conditions	7 145	7 455	6 446	24 540	32 769	44 060	28 336
excessive moisture	454	310	253	150	69	62	90
forest fires	79	105	5 968	957	179	716	2 114
of which: coniferous species							
Total forest loss	7 689	7 746	12 206	24 457	34 588	49 492	33 326
of which by cause:							
damaged by insect pests	2	24	8	–	4	6	33
damaged by wild animals	–	2	–	–	1	–	7
forest diseases	487	634	962	1 533	2 299	5 082	3 110
anthropogenic factors	–	1	–	–	9	–	–
adverse weather conditions	6 806	6 781	5 974	21 900	32 050	43 657	28 046
excessive moisture	315	199	201	103	48	31	56
forest fires	78	104	5 061	921	177	716	2 074

Continued

	2013	2014	2015	2016	2017	2018	2019
				deciduous species			
Total forest loss	533	848	1 454	2 749	779	474	433
of which by cause:							
damaged by wild animals	–	–	–	5	–	–	–
forest diseases	54	63	23	21	37	40	69
adverse weather conditions	339	674	472	2 640	719	403	290
excessive moisture	139	111	52	47	21	31	34
forest fires	1	1	907	36	2	–	40

11.14. Structure of area of forest loss by cause

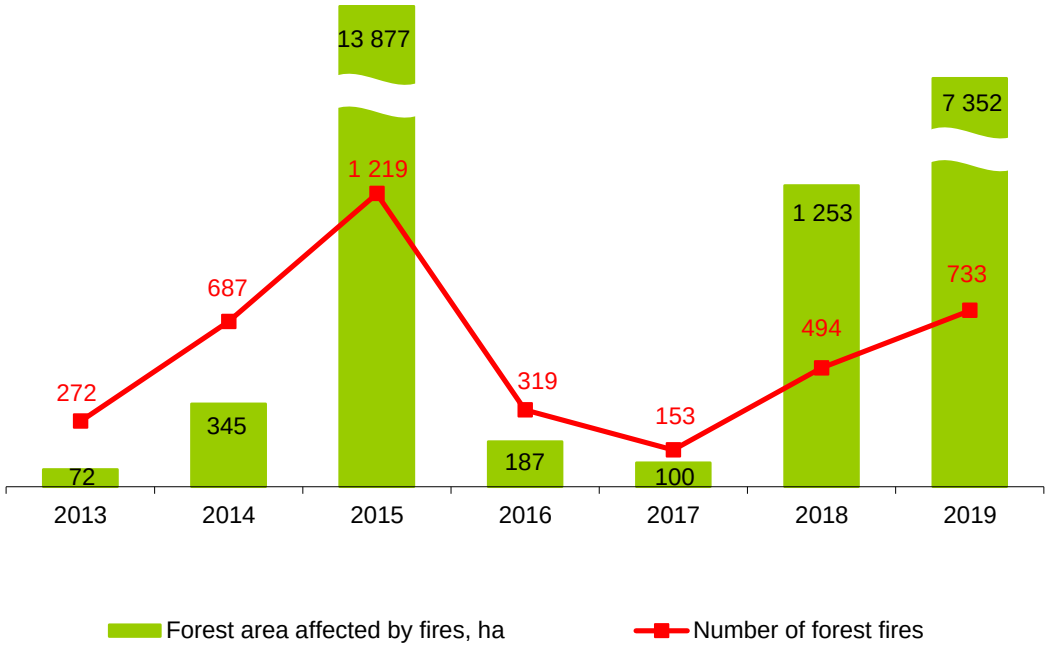
(as % of total)



11.15. Forest fires by region

	2013	2014	2015	2016	2017	2018	2019
Number of forest fires							
Republic of Belarus	272	687	1 219	319	153	494	733
Region:							
Brest	35	92	240	57	37	115	249
Vitebsk	32	30	60	29	8	20	41
Gomel	97	285	452	117	64	142	169
Grodno	36	47	63	22	5	52	87
Minsk	48	163	233	58	32	130	133
Mogilev	24	70	171	36	7	35	54
Forest area affected by fires, hectares							
Republic of Belarus	72	345	13 877	187	100	1 253	7 352
Region:							
Brest	6	30	1 360	52	16	299	5 337
Vitebsk	8	24	75	46	6	15	75
Gomel	21	157	11 991	51	56	262	749
Grodno	6	15	28	5	3	392	917
Minsk	9	75	75	11	8	237	208
Mogilev	22	45	349	23	11	48	66
Standing timber damaged, cubic metres							
Republic of Belarus	1 572	13 735	398 496	4 052	3 201	11 248	49 102
Region:							
Brest	75	2 411	81 409	3 327	2 328	2 723	41 499
Vitebsk	83	–	–	68	–	536	2 364
Gomel	1 341	6 774	296 686	–	873	5 769	3 150
Grodno	30	133	3 967	80	–	120	2 063
Minsk	43	3 500	1 239	338	–	–	–
Mogilev	–	917	15 196	240	–	2 100	26

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)

	2013	2014	2015	2016	2017	2018	2019
Republic of Belarus	9 410	9 420	9 461	9 526	9 560	9 570	9 315
Region:							
Brest	1 494	1 500	1 500	1 473	1 408	1 410	1 372
Vitebsk	1 873	1 873	1 883	1 903	1 906	1 911	1 894
Gomel	2 224	2 225	2 239	2 274	2 287	2 285	2 289
Grodno	922	924	924	927	992	995	771
Minsk	1 660	1 660	1 660	1 685	1 699	1 700	1 718
Mogilev	1 237	1 239	1 254	1 265	1 268	1 270	1 271

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)

	2013	2014	2015	2016	2017	2018	2019
Total							
Republic of Belarus	16.7	16.6	16.7	16.5	16.6	16.8	16.9
Region:							
Brest	2.7	2.7	2.5	2.6	2.6	2.6	2.7
Vitebsk	3.5	3.5	3.5	3.4	3.4	3.4	3.4
Gomel	3.0	3.0	3.1	3.0	3.1	3.1	3.1
Grodno	1.9	1.9	1.9	1.9	1.9	1.9	1.9
Minsk	3.2	3.2	3.3	3.2	3.2	3.3	3.3
Mogilev	2.5	2.4	2.4	2.4	2.4	2.4	2.5
of which under game husbandry management							
Republic of Belarus	14.8	15.1	16.1	15.6	15.9	16.6	16.8
Region:							
Brest	2.7	2.7	2.5	2.2	2.2	2.5	2.5
Vitebsk	3.0	3.5	3.5	3.4	3.4	3.4	3.4
Gomel	1.7	1.6	2.8	2.7	2.8	3.0	3.1
Grodno	1.9	1.8	1.8	1.7	1.9	1.9	1.9
Minsk	3.2	3.1	3.1	3.2	3.2	3.3	3.3
Mogilev	2.5	2.4	2.4	2.4	2.4	2.4	2.5

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

(BYN thousand (2013 – 2015 – BYR million); at current prices)

	2013	2014	2015	2016	2017	2018	2019
Republic of Belarus	30 445	33 776	43 958	3 529	3 551	4 361	3 557
Region:							
Brest	8 107	9 234	14 316	1 015	546	1 011	707
Vitebsk	9 610	13 048	13 768	1 060	1 613	1 551	1 212
Gomel	7 542	7 055	10 133	513	467	515	350
Grodno	1 771	1 041	1 600	308	278	342	375
Minsk	2 458	2 393	3 541	488	492	772	681
Mogilev	957	1 006	601	144	156	170	232

12.3. Game husbandry earnings and expenditures

(BYN thousand (2013 – 2015 – BYR million); at current prices)

	2013	2014	2015	2016	2017	2018	2019
Earnings from game husbandry maintenance	168 677	173 536	198 971	22 102	22 518	25 158	27 316
Expenditures on game husbandry maintenance	160 265	185 424	207 830	20 891	23 734	26 190	27 420
of which on biotechnical activities designed for wildlife reproduction and protection	30 445	33 776	43 958	3 529	3 551	4 361	3 557
of which:							
distribution (settlement) of game animals	4 830	7 194	9 802	571	1 018	1 069	482
purchase of supplementary feeds for wild animals	21 036	22 823	25 523	1 551	1 256	1 842	1 708

12.4. Populations of major game species

(thousand animal units)

	2013	2014	2015	2016	2017	2018	2019
Elk	27.9	30.1	32.0	33.7	36.3	38.4	41.7
Red deer	12.2	13.6	15.2	16.7	21.5	22.7	26.2
Boar	80.4	8.6	8.0	2.6	2.8	2.6	2.4
Roe deer	74.0	71.5	74.7	82.1	92.8	100.2	109.2
Squirrel	111.1	102.4	118.4	110.3	111.8	106.5	104.3
Hare	154.1	152.8	159.1	157.7	167.5	172.3	173.8
Fox	33.8	29.7	27.5	25.5	25.2	25.3	23.8
Muskrat	27.6	24.4	29.9	27.4	25.8	18.9	17.8
American mink	22.3	22.5	23.0	23.3	24.1	24.5	23.9
Beaver	62.0	63.4	58.3	51.3	51.1	52.9	53.9
Wood grouse	9.1	8.2	8.4	9.0	7.9	8.1	8.3
Black grouse	34.6	39.9	37.3	38.5	40.6	43.2	44.0

12.5. Hunting of major game species

(thousand animal units)

	2013	2014	2015	2016	2017	2018	2019
Elk	2.5	3.3	3.8	4.2	4.6	5.5	6.9
Red deer	0.9	1.1	1.2	1.5	1.7	2.0	2.6
Boar	48.1	30.6	17.2	10.7	9.1	7.7	11.4
Roe deer	6.2	6.6	7.9	9.3	11.1	12.4	15.7
Squirrel	3.5	2.5	2.5	2.2	2.2	2.2	2.0
Hare	40.5	40.1	43.4	49.4	54.1	57.4	42.4
Fox	16.4	15.2	15.4	13.3	17.3	16.7	19.9
Muskrat	2.2	1.8	1.3	0.8	0.6	0.5	0.5
American mink	3.7	4.0	3.3	2.4	2.2	2.1	1.7
Beaver	6.3	6.0	8.9	7.9	8.3	7.3	8.4
Wood grouse	0.1	0.1	0.1	0.4	0.1	0.1	0.1
Black grouse	0.2	0.2	0.2	0.4	0.6	0.3	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	2019
European bison (main gene pool)	…	…	1 092	1 423	1 451	1 666
Badger	1 416	728	695	681	650	626
Bear	119	20	76	68	25	19
European mink	351	225	260	101	45	60
Lynx	771	421	532	489	430	565

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 storage and transportation of waste for its preparation, storage, burial, detoxification and / or recovery.

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 List is approved by the Ministry of Housing and Utilities.

According to the List of municipal waste, it includes consumption waste, as well as selected industrial waste generated at the facilities of emergency and rescue services, consumer services, road services, cultural infrastructure, the National Bank, banks and non-bank credit and financial organizations, public catering, public associations (organizations), healthcare and social service organizations, physical education and sport organizations, postal services, political parties, law enforcement authorities, religious organizations, ~~spa~~ sanatorium-resort and recreation organizations, insurance organizations, transport infrastructure, educational institutions; in the buildings of administrative and household legal entities, archives, media outlets, republican bodies of state administration, local administrative bodies and bodies of self-governance, courts; in military units; in places of burial; in office premises; in public toilets; on the territories and premises of trade facilities, markets, fairs, including waste (sweepings) from cleaning; at facilities that use municipal waste in order to generate thermal and (or) electric energy. In addition, municipal waste includes waste (sweepings) from cleaning the territory of industrial organizations; street and courtyard sweepings arising at the adjacent and recreation areas; plant waste arising from cleaning the territory of gardens, parks, squares, burial places and other green areas located on public use lands; plant waste arising from cleaning water bodies located on public use lands and territories of recreation areas.

Secondary raw materials is waste in relation to which there is a possibility of using it on the territory of the republic.

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

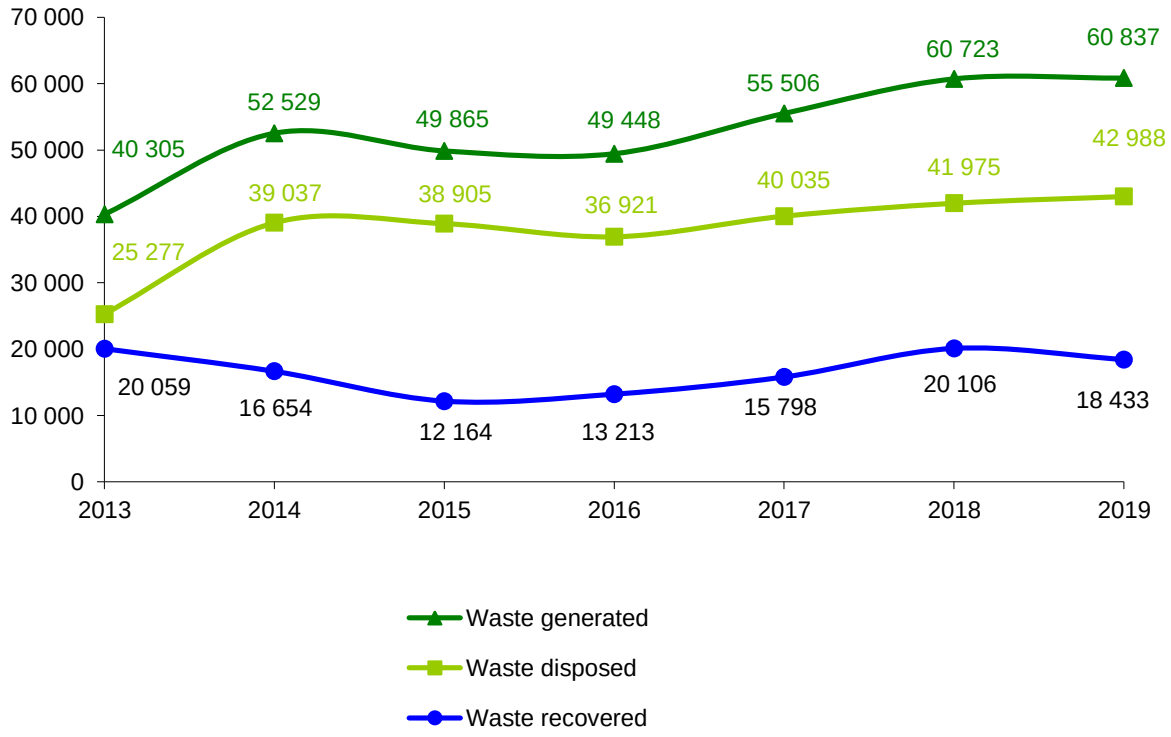
	2013	2014	2015	2016	2017	2018	2019
Waste generated, thousand tonnes							
Republic of Belarus	40 305	52 529	49 865	49 448	55 506	60 723	60 837
Regions and Minsk city:							
Brest	1 412	1 449	1 244	1 579	1 488	1 974	2 021
Vitebsk	843	836	552	510	769	770	901
Gomel	2 993	3 702	3 097	2 867	3 114	4 639	3 769
Grodno	2 196	1 864	1 786	2 072	2 349	2 528	3 485
Minsk city	2 397	2 072	1 980	2 858	3 139	3 185	3 012
Minsk	27 355	38 210	36 601	36 565	40 714	43 316	43 616
Mogilev	3 109	4 396	4 605	2 996	3 933	4 313	4 032
Waste recovered, thousand tonnes							
Republic of Belarus	20 059	16 654	12 164	13 213	15 798	20 106	18 433
Regions and Minsk city:							
Brest	1 221	1 244	1 039	1 450	1 343	2 211	1 866
Vitebsk	553	631	388	397	633	627	757
Gomel	7 020	5 032	2 632	1 730	1 748	3 162	2 278
Grodno	1 404	1 131	1 008	1 425	1 816	1 925	2 551
Minsk city	1 162	996	1 177	2 068	2 473	2 760	2 829
Minsk	5 871	5 772	3 362	4 016	4 304	5 510	4 816
Mogilev	2 828	1 848	2 557	2 128	3 481	3 912	3 336
As percentage of waste generated							
Republic of Belarus	49.8	31.7	24.4	26.7	28.5	33.1	30.3
Regions and Minsk city:							
Brest	86.5	85.9	83.5	91.8	90.3	112.0	92.3
Vitebsk	65.6	75.5	70.3	77.9	82.3	81.4	84.1
Gomel	234.5	135.9	85.0	60.3	56.1	68.2	60.4
Grodno	63.9	60.7	56.4	68.8	77.3	76.2	73.2
Minsk city	48.5	48.1	59.4	72.3	78.8	86.7	93.9
Minsk	21.5	15.1	9.2	11.0	10.6	12.7	11.0
Mogilev	91.0	42.0	55.5	71.0	88.5	90.7	82.7

Continued

	2013	2014	2015	2016	2017	2018	2019
	Waste disposed, thousand tonnes						
Republic of Belarus	25 277	39 037	38 905	36 921	40 035	41 975	42 988
Regions and Minsk city:							
Brest	209	248	241	223	196	130	180
Vitebsk	301	224	173	148	162	152	162
Gomel	648	1 431	1 306	1 322	1 435	2 138	1 630
Grodno	856	824	827	694	619	622	993
Minsk city	1 240	1 091	820	887	705	474	279
Minsk	21 526	32 522	33 274	32 667	36 445	37 852	38 991
Mogilev	497	2 698	2 264	979	472	607	753

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)

	2013	2014	2015	2016	2017	2018	2019
Waste generated							
Total	40 305	52 529	49 865	49 448	55 506	60 723	60 837
of which waste of:							
plant and animal origin	5 228	5 349	4 113	4 145	4 966	5 269	4 656
mineral origin	9 606	11 028	9 369	8 607	9 804	12 888	12 783
chemical production and related industries	22 632	33 374	34 155	34 076	38 140	39 562	40 033
of which halite	20 049	29 801	30 541	30 202	33 853	35 050	35 300
medical	9	10	14	17	51	26	64
(precipitation) of water treatment of boiler and heat economy and drinking water, sewage treatment, rainwater and water use in electric power station	1 971	1 902	1 538	1 782	1 635	2 165	2 371
from human vital activities and similar production waste	860	866	677	822	911	814	930
Waste recovered							
Total	20 059	16 654	12 164	13 213	15 798	20 106	18 433
of which waste of:							
plant and animal origin	5 270	5 452	4 134	4 138	4 813	5 120	4 539
mineral origin	12 945	9 571	6 685	6 783	8 326	11 220	10 869
chemical production and related industries	1 195	935	945	1 529	1 762	2 060	1 353
of which halite	914	651	692	903	1 119	1 232	695

Continued

	2013	2014	2015	2016	2017	2018	2019
medical	4	5	3	4	22	11	11
(precipitation) of water treatment of boiler and heat economy and drinking water, sewage treatment, rainwater and water use in electric power station	635	681	384	687	641	1 465	1 232
from human vital activities and similar production waste	10	11	13	72	233	229	430
Waste disposed							
Total	25 277	39 037	38 905	36 921	40 035	41 975	42 988
of which waste of:							
plant and animal origin	418	326	381	293	254	329	250
mineral origin	1 142	4 063	3 420	2 152	1 673	2 486	2 300
chemical production and related industries	21 464	32 461	33 241	32 570	36 397	37 531	38 711
of which halite	19 136	29 151	29 849	29 299	32 734	33 818	34 605
medical	5	5	11	13	29	15	54
(precipitation) of water treatment of boiler and heat economy and drinking water, sewage treatment, rainwater and water use in electric power station	1 396	1 324	1 186	1 140	1 003	1 024	1 155
from human vital activities and similar production waste	852	858	666	753	679	589	518

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

(kilogrammes)

	2013	2014	2015	2016	2017	2018	2019
Republic of Belarus	4 258	5 544	5 255	5 204	5 844	6 403	6 460
Regions and Minsk city:							
Brest	1 016	1 043	896	1 139	1 074	1 428	1 499
Vitebsk	700	696	461	428	649	655	792
Gomel	2 098	2 598	2 176	2 017	2 196	3 283	2 711
Grodno	2 078	1 769	1 699	1 976	2 246	2 427	3 390
Minsk city	1 254	1 074	1 016	1 453	1 586	1 602	1 494
Minsk	19 508	27 190	25 910	25 748	28 576	30 343	29 671
Mogilev	2 893	4 102	4 307	2 811	3 705	4 085	3 931

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

(kilogrammes)

	2013	2014	2015	2016	2017	2018	2019
Republic of Belarus	2 119	1 758	1 282	1 391	1 663	2 120	1 957
Regions and Minsk city:							
Brest	879	896	749	1 046	969	1 599	1 383
Vitebsk	459	526	325	334	535	533	666
Gomel	4 921	3 532	1 849	1 217	1 232	2 238	1 639
Grodno	1 329	1 073	959	1 359	1 737	1 849	2 482
Minsk city	608	516	604	1 051	1 250	1 389	1 403
Minsk	4 187	4 107	2 380	2 828	3 021	3 860	3 276
Mogilev	2 632	1 724	2 392	1 996	3 279	3 705	3 251

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

(thousand tonnes)

	2013	2014	2015	2016	2017	2018	2019
Republic of Belarus	40 305.0	52 529.3	49 865.3	49 448.2	55 506.0	60 723.4	60 836.8
Brest region	1 411.9	1 449. 1	1 244.0	1 579.4	1 487.7	1 973.7	2 021.2
Brest, city of	764.9	762.7	497.5	889.9	688.3	1 220.1	1 260.8
District:							
Baranovichy	52.1	72.3	77.4	109.7	78.2	124.1	139.4
Bereza	96.8	87.4	84.2	108.9	52.3	71.1	63.7
Brest	4.1	1.7	54.6	7.2	52.3	52.2	64.5
Gantsevichy	38.2	35.0	77.0	13.5	21.1	20.5	16.2
Drogichin	13.2	14.4	17.1	16.3	12.4	15.1	11.6
Zhabinka	77.2	79.0	93.2	96.7	39.7	5.3	10.8
Ivanovo	69.1	90.1	25.9	20.5	23.9	87.9	68.1
Ivatsevichy	51.4	84.0	45.5	61.1	258.6	198.4	105.4
Kamenets	2.4	10.0	5.1	3.3	3.8	24.9	24.9
Kobrin	15.0	13.6	11.7	11.7	17.1	17.2	79.3
Luninets	45.3	43.9	14.4	12.8	12.3	15.4	16.6
Lyakhovichy	32.2	5.5	7.6	8.5	15.6	11.5	17.6
Malorita	4.5	7.2	6.5	7.7	8.0	6.6	14.6
Pinsk	129.0	91.7	209.4	198.4	183.9	78.6	68.6
Pruzhany	10.7	14.4	14.4	11.2	12.1	15.0	16.4
Stolin	6.1	38.6	2.3	2.2	8.3	9.9	42.8

Continued

	2013	2014	2015	2016	2017	2018	2019
Vitebsk region	843.0	835.8	551.6	509.9	769.0	769.8	901.0
Vitebsk, city of	235.8	201.5	115.4	101.5	109.9	91.8	176.0
District:							
Beshenkovichy	1.2	0.9	0.5	0.4	0.4	1.3	1.2
Braslav	9.4	12.2	8.0	12.5	22.7	27.3	18.5
Verkhnedvinsk	7.4	13.8	14.2	11.1	16.2	16.0	11.9
Vitebsk	5.3	0.2	8.7	6.8	25.6	74.2	75.3
Glubokoye	16.6	13.6	11.9	11.7	21.2	11.4	10.0
Gorodok	2.4	4.1	1.8	7.2	9.2	11.4	11.3
Dokshitsy	3.2	1.6	1.6	1.8	5.0	1.6	1.5
Dubrovno	2.0	1.3	2.2	2.8	2.7	2.0	2.3
Lepel	6.7	9.6	16.0	12.1	16.3	23.4	24.3
Liozno	5.3	2.8	4.3	18.6	19.7	24.4	23.9
Miory	7.3	4.9	4.2	4.4	4.4	4.3	3.6
Orsha	35.2	79.6	67.1	46.6	121.8	76.3	109.2
Polotsk	104.5	93.8	70.5	63.2	98.0	125.4	142.6
Postavy	137.2	218.3	43.2	34.3	60.8	64.9	63.3
Rossony	4.6	3.8	3.6	3.8	1.9	4.8	3.9
Senno	162.2	80.3	58.0	71.5	83.6	83.2	72.1
Tolochin	16.7	10.9	51.6	28.4	44.5	26.5	53.8
Ushachy	5.7	5.2	6.2	6.5	6.5	5.3	3.6
Chashniki	68.9	70.8	58.8	57.8	94.4	86.3	86.1
Sharkovshchina	1.5	2.5	1.7	4.3	1.8	4.7	2.2
Shumilino	3.7	4.2	2.4	2.6	2.5	3.2	4.3

Continued

	2013	2014	2015	2016	2017	2018	2019
Gomel region	2 993.5	3 702.1	3 097.4	2 867.1	3 114.3	4 638.5	3 769.2
Gomel, city of	1 011.8	983.1	1 016.2	1 047.7	1 115.2	1 209.3	1 392.1
District:							
Bragin	1.5	0.0	0.2	0.1	0.1	0.6	0.3
Buda-Koshelyovo	15.6	11.0	9.1	12.5	14.1	23.3	27.4
Vetka	8.1	3.0	4.7	4.4	3.2	1.8	2.1
Gomel	89.9	80.5	12.5	47.2	181.9	180.3	175.1
Dobrush	95.9	81.1	53.0	34.7	22.2	11.4	14.2
Yelsk	0.6	2.6	4.5	3.8	3.3	3.4	11.6
Zhitkovichy	22.2	12.3	29.4	25.8	27.6	13.2	30.3
Zhlobin	968.3	1 907.6	1 385.1	1 221.5	1 184.1	2 570.6	1 414.2
Kalinkovichy	18.6	14.7	21.6	23.2	24.7	19.3	37.6
Korma	2.9	1.4	4.0	6.0	4.8	6.8	10.9
Lelchitsy	9.4	3.6	10.6	7.3	17.5	9.2	20.6
Loyev	1.5	1.8	1.5	2.1	1.2	1.5	3.5
Mozyr	236.5	124.4	87.7	121.9	113.8	137.5	137.2
Narovlya	4.1	3.1	2.5	3.0	0.9	2.4	4.7
Oktyabrsky	5.6	5.7	12.1	5.0	4.6	8.5	7.9
Petrikov	68.2	69.3	37.8	82.1	119.8	79.1	81.9
Rechitsa	247.5	222.3	260.1	107.9	118.5	186.9	182.3
Rogachev	7.3	7.8	14.4	15.3	20.7	18.8	15.1
Svetlogorsk	151.8	140.5	108.4	67.5	114.3	131.0	168.5
Khoyniki	18.1	11.5	12.8	17.8	13.9	11.0	18.3
Chechersk	8.1	14.8	9.3	10.5	8.0	12.7	13.7

Continued

	2013	2014	2015	2016	2017	2018	2019
Grodno region	2 196.1	1 863.7	1 785.8	2 072.4	2 348.5	2 528.1	3 484.7
Grodno, city of	751.5	823.5	821.3	1 040.3	985.9	904.7	1 860.7
District:							
Berestovitsa	2.4	3.2	2.8	17.0	15.9	20.0	19.6
Volkovysk	274.2	330.8	275.8	224.6	238.2	284.5	369.0
Voronovo	7.0	3.3	3.3	5.0	3.3	4.2	3.5
Grodno	585.2	172.0	100.4	100.4	160.6	318.0	204.4
Dyatlovo	4.2	4.2	6.8	3.3	9.4	8.5	8.4
Zelva	2.8	3.0	1.7	2.2	1.8	1.9	1.9
Ivye	21.5	7.5	2.6	5.6	7.2	10.4	17.2
Korelichy	5.0	5.2	6.9	6.5	5.2	13.2	9.5
Lida	97.0	81.5	72.3	84.5	116.3	129.4	154.3
Mosty	3.8	5.5	6.2	5.0	85.7	21.1	82.3
Novogrudok	8.9	8.0	13.2	4.5	11.0	19.5	21.7
Ostrovets	10.0	9.7	6.6	12.6	18.4	21.0	21.4
Oshmyany	8.7	26.0	21.4	39.6	35.7	26.8	4.4
Svisloch	8.0	7.4	4.6	5.3	4.7	4.5	11.7
Slonim	202.7	200.3	184.5	198.7	214.7	235.6	241.7
Smorgon	182.2	152.1	247.3	310.2	413.8	487.2	431.2
Shchuchin	21.3	20.8	8.2	7.5	20.8	17.4	21.9

Continued

	2013	2014	2015	2016	2017	2018	2019
Minsk city	2 397.0	2 072.3	1 980.4	2 857.9	3 138.9	3 184.7	3 012.5
Minsk region	27 355.0	38 210.1	36 600.9	36 565.3	40 714.1	43 316.0	43 615.8
District:							
Berezino	52.9	33.5	42.6	31.9	89.4	198.5	52.0
Borisov	201.4	230.6	212.8	174.3	214.4	241.7	117.9
Vileyka	67.9	39.7	42.9	28.7	24.5	25.7	39.0
Volozhin	5.7	8.8	8.2	6.3	7.9	21.7	9.0
Dzerzhinsk	16.8	14.4	11.4	12.5	19.8	101.5	443.8
Kletsk	15.4	19.7	13.9	16.5	10.2	25.8	22.0
Kopyl	40.9	48.1	15.8	12.0	20.7	5.3	18.9
Krupki	44.3	54.1	55.0	60.8	73.7	49.0	59.9
Logoysk	1 615.8	1 334.2	420.0	1 046.2	1 019.9	1 380.9	991.6
Lyuban	31.5	73.1	41.2	73.1	110.8	9 681.1	9 971.0
Minsk	791.3	707.9	171.1	126.1	118.2	684.6	1 049.9
Molodechno	194.3	221.5	167.3	171.0	274.1	211.2	202.5
Myadel	29.2	1 164.2	5.3	34.0	44.9	41.7	42.5
Nesvizh	821.8	649.9	865.8	649.0	731.7	732.4	594.1
Pukhovichy	533.6	254.5	381.7	334.7	77.4	298.5	189.9
Slutsk	430.4	190.5	196.7	186.9	221.3	358.1	243.1
Smolevichy	43.1	50.4	50.8	63.5	81.8	33.6	65.2
Soligorsk	22 260.1	32 970.9	33 804.7	33 439.4	37 428.6	29 059.2	29 352.6
Staryie Dorogi	15.5	19.0	14.1	16.8	22.8	30.1	28.4
Stolbtsy	112.2	89.3	51.5	56.4	88.9	98.0	93.4
Uzda	17.0	21.8	15.7	14.9	21.0	24.2	9.6
Cherven	13.9	13.7	12.3	10.4	12.0	13.2	19.6

Continued

	2013	2014	2015	2016	2017	2018	2019
Mogilev region	3 108.5	4 396.5	4 605.3	2 996.2	3 933.5	4 312.7	4 032.5
Mogilev, city of	316.7	327.2	398.8	400.5	1 058.9	688.8	503.6
District:							
Belynichy	9.7	10.0	8.1	7.3	9.6	12.0	11.1
Bobruysk	551.6	416.8	401.9	455.5	516.6	574.2	770.2
Bykhov	5.5	8.5	12.7	8.4	4.5	7.7	8.5
Glusk	11.7	21.1	18.8	19.9	21.1	1.6	1.3
Gorki	15.4	29.5	1.3	12.9	15.0	11.6	12.9
Dribin	1.4	0.6	1.0	0.9	5.6	0.3	0.3
Kirovsk	5.9	6.0	6.3	6.7	4.5	3.6	3.6
Klimovichy	33.8	15.2	9.0	6.8	8.7	8.3	10.1
Klichev	7.4	5.0	1.8	2.8	3.0	2.3	6.8
Kostyukovichy	1 968.7	3 371.7	3 612.3	1 913.5	2 050.4	2 553.4	2 222.3
Krasnopolye	0.1	0.0	0.0	0.2	0.0	3.8	0.3
Krichev	3.0	2.1	2.9	2.1	3.7	14.2	124.2
Krugloye	4.7	9.9	10.3	14.3	15.7	15.3	17.5
Mogilev	8.6	0.8	1.9	33.1	59.8	213.5	177.9
Mstislavl	3.5	4.9	2.9	3.4	4.8	4.4	4.7
Osipovichy	59.3	57.7	53.2	54.1	78.2	106.0	42.9
Slavgorod	1.9	1.7	1.3	0.5	1.3	1.7	1.7
Khotimsk	9.2	42.6	2.5	0.3	2.0	2.1	8.4
Chausy	5.3	1.2	7.1	6.6	9.3	12.2	7.2
Cherikov	12.7	3.9	3.3	1.7	0.7	1.5	1.0
Shklov	72.5	60.0	48.2	44.6	60.1	74.2	96.1

13.7. Generation of industrial waste by economic activity

(thousand tonnes)

	2016	2017	2018	2019
Republic of Belarus	49 448.2	55 506.0	60 723.4	60 836.8
of which:				
Agriculture, forestry and fishing	563.9	621.0	698.9	727.4
Mining	1 253.4	1 011.9	1 207.1	1 248.8
Manufacturing	42 900.1	47 855.3	52 025.0	50 887.6
of which:				
Manufacture of food products, beverages and tobacco products	1 858.5	2 055.2	2 548.6	1 907.2
Manufacture of textile articles, wearing apparel, articles of leather and fur	111.9	126.6	139.2	116.1
Manufacture of products of wood and paper; printing and reproduction of recorded media	756.7	1 244.1	1 301.8	1 511.5
Manufacture of coke and refined petroleum products	46.1	75.8	82.9	100.8
Manufacture of chemicals and chemical products	34 595.2	39 128.8	42 071.6	42 018.8
Manufacture of basic pharmaceuticals and medicinal products	6.6	7.7	8.4	4.2
Manufacture of rubber and plastics products, of other non-metallic mineral products	3 026.3	3 397.7	3 717.3	3 570.6
Manufacture of basic metals; manufacture of fabricated metal products, except machinery and equipment	771.6	762.5	934.3	765.6
Manufacture of computer, electronic and optical products	5.1	5.7	6.3	3.3
Manufacture of electrical equipment	12.4	13.1	14.3	10.1
Manufacture of machinery and equipment n.e.c.	300.7	298.3	331.1	350.0
Manufacture of transport vehicles and equipment	19.8	135.0	151.5	63.3
Other manufacturing; repair and installation of machinery and equipment	1 389.2	604.8	717.7	466.1
Electricity, gas, steam, hot water and air conditioning supply	276.5	447.5	705.9	661.4
Water supply; waste management and remediation activities	2 141.5	2 688.6	3 041.6	3 578.1
Construction	1 172.3	1 446.8	1 682.4	1 976.6
Wholesale and retail trade; repair of motor vehicles and motorcycles	485.2	498.6	542.6	256.5
Transportation and storage, postal and courier activities	135.1	112.7	123.3	692.3
Accommodation and food service activities	8.3	63.1	69.0	50.0
Information and communication	5.2	8.1	8.8	4.5
Financial and insurance activities	7.5	3.6	4.0	15.2
Real estate activities	168.6	23.7	25.9	56.5
Professional, scientific and technical activities	14.6	23.2	25.4	192.5
Administrative and support service activities	1.8	189.6	207.5	40.1
Public administration	103.0	36.7	40.1	121.2
Education	24.7	104.3	114.1	78.8
Human health and social work activities	68.2	138.9	149.9	138.0
Arts, sports, entertainment and recreation	116.5	43.9	48.0	83.2
Other service activity	1.9	1.7	1.9	28.2

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

(thousand tonnes)

	2013	2014	2015	2016	2017	2018	2019
Republic of Belarus	20 058.7	16 653.9	12 163.8	13 213.0	15 798.3	20 106.0	18 433.1
Brest region	1 221.3	1 244.2	1 039.0	1 449.8	1 343.0	2 210.8	1 865.7
Brest, city of	692.5	705.0	466.0	909.7	648.0	1 182.6	1 214.0
District:							
Baranovichy	27.0	50.7	69.7	77.3	53.2	122.1	129.4
Bereza	57.8	40.6	27.5	53.2	48.8	69.5	60.9
Brest	3.6	1.6	27.7	6.1	38.8	46.8	57.0
Gantsevichy	37.4	34.7	75.9	12.9	20.4	19.8	15.6
Drogichin	11.2	12.2	14.9	15.2	11.3	13.5	11.6
Zhabinka	75.0	82.5	86.9	101.4	4.3	2.7	9.7
Ivanovo	65.3	87.9	21.6	17.5	23.1	86.6	65.7
Ivatsevichy	46.0	79.9	42.7	58.4	288.0	198.5	98.6
Kamenets	0.2	8.3	1.5	1.7	2.3	23.3	23.4
Kobrin	8.4	7.3	7.7	11.1	13.4	15.6	71.1
Luninets	36.9	38.8	9.9	10.6	7.5	11.2	13.2
Lyakhovichy	27.0	5.4	3.4	4.2	6.1	4.6	6.6
Malorita	2.0	4.4	4.2	6.4	7.2	6.3	11.4
Pinsk	119.3	72.3	169.9	156.2	161.2	394.5	54.4
Pruzhany	7.3	8.3	8.9	7.5	8.1	8.3	12.1
Stolin	4.6	4.4	1.0	0.6	1.3	4.9	11.0

Continued

	2013	2014	2015	2016	2017	2018	2019
Vitebsk region	552.9	631.1	388.3	397.2	633.1	626.5	757.4
Vitebsk, city of	150.2	129.4	76.1	75.8	66.8	65.3	139.9
District:							
Beshenkovichy	0.0	0.0	0.0	0.0	0.0	0.4	0.1
Braslav	7.1	10.0	6.1	9.9	21.3	24.5	18.1
Verkhnedvinsk	3.8	12.3	13.2	9.8	15.2	14.0	11.0
Vitebsk	3.4	0.0	4.5	2.2	17.8	51.2	74.0
Glubokoye	5.7	6.9	5.8	7.0	14.4	7.5	6.3
Gorodok	0.3	2.1	0.6	5.7	8.1	10.8	10.6
Dokshitsy	0.1	0.6	0.1	0.2	3.4	0.4	0.3
Dubrovno	0.5	0.3	1.0	0.5	0.5	0.4	0.7
Lepel	3.3	6.9	11.3	12.1	14.7	20.1	19.5
Liozno	3.7	1.7	2.8	17.1	18.2	24.9	23.2
Miory	2.5	2.2	2.0	2.3	2.4	2.3	2.3
Orsha	16.9	58.5	38.9	32.4	113.3	56.4	103.1
Polotsk	37.4	37.3	28.7	26.9	57.0	87.0	78.2
Postavy	130.8	215.9	37.1	28.9	56.1	59.2	59.0
Rossony	3.0	2.3	2.1	3.0	1.0	4.1	3.7
Senno	158.6	79.7	61.5	68.6	87.7	79.1	68.6
Tolochin	15.9	7.4	43.5	32.2	42.6	24.6	46.7
Ushachy	4.0	4.6	5.2	5.3	5.3	4.5	3.0
Chashniki	3.1	51.4	47.2	53.8	86.5	85.0	84.9
Sharkovshchina	0.1	0.2	0.1	2.7	0.3	4.1	1.6
Shumilino	2.5	1.7	0.5	0.8	0.7	1.1	2.6

Continued

	2013	2014	2015	2016	2017	2018	2019
Gomel region	7 019.6	5 032.0	2 632.3	1 729.7	1 747.6	3 161.6	2 278.0
Gomel, city of	4 746.1	268.7	317.9	354.9	338.9	405.7	496.6
District:							
Bragin	0.2	0.0	0.1	0.0	0.0	0.5	0.2
Buda-Koshelyovo	9.1	9.1	6.6	7.8	11.8	31.3	26.4
Vetka	5.0	2.6	4.0	2.9	2.5	1.2	1.6
Gomel	92.5	74.8	6.0	38.8	152.0	168.7	185.7
Dobrush	25.3	23.1	23.9	26.9	18.4	7.1	7.7
Yelsk	0.3	2.9	3.8	3.9	2.8	3.4	10.6
Zhitkovichy	14.3	6.4	18.8	21.3	19.8	9.7	27.2
Zhlobin	1 209.9	3 941.2	1 514.9	775.0	714.3	1 987.2	897.6
Kalinkovichy	12.4	9.5	15.9	18.1	20.2	14.4	32.6
Korma	0.5	0.1	2.4	4.2	3.8	6.5	10.1
Lelchitsy	7.9	1.8	7.9	6.1	15.6	7.8	25.2
Loyev	0.7	1.0	0.6	1.1	0.7	0.9	1.4
Mozyr	200.0	89.9	104.6	141.9	101.0	133.3	121.3
Narovlya	1.3	0.2	1.9	2.7	0.6	1.5	3.6
Oktyabrsky	4.0	3.5	10.0	4.3	4.3	7.4	6.3
Petrikov	64.7	60.6	42.0	76.8	115.8	77.2	78.6
Rechitsa	477.8	384.8	427.9	162.7	100.9	163.3	162.0
Rogachev	3.9	5.1	8.2	5.3	19.6	15.2	11.6
Svetlogorsk	130.6	125.4	101.2	52.4	81.7	98.9	146.1
Khoyniki	6.7	9.8	5.7	13.7	15.9	9.1	13.6
Chechersk	6.6	11.7	8.2	8.9	7.1	11.4	12.6

Continued

	2013	2014	2015	2016	2017	2018	2019
Grodno region	1 404.0	1 130.9	1 008.2	1 425.2	1 816.4	1 925.4	2 551.2
Grodno, city of	169.0	262.4	280.9	595.0	623.5	557.1	1 165.9
District:							
Berestovitsa	0.7	1.1	0.8	14.6	14.5	17.7	18.0
Volkovysk	267.1	305.6	268.2	212.1	230.7	236.7	372.6
Voronovo	3.9	1.3	2.0	2.1	2.4	3.1	1.6
Grodno	576.5	233.6	48.7	93.2	172.7	303.0	145.2
Dyatlovo	0.3	0.3	2.5	0.6	5.5	4.8	4.0
Zelva	0.7	0.8	0.8	0.6	0.9	0.9	1.3
Ivye	18.0	6.5	1.4	4.5	4.4	6.7	14.4
Korelichy	2.9	3.2	2.7	4.4	8.0	12.6	6.2
Lida	67.4	52.9	51.0	59.6	97.2	105.5	134.7
Mosty	0.4	0.7	1.2	2.3	87.4	18.7	61.1
Novogrudok	3.2	2.2	4.6	2.0	5.2	13.1	15.8
Ostrovets	8.1	7.9	3.4	8.0	9.6	11.1	13.2
Oshmyany	2.7	9.0	20.4	35.6	33.1	23.2	1.5
Svisloch	4.7	5.5	3.2	3.0	2.8	2.9	3.7
Slonim	95.8	86.7	79.7	80.9	99.3	126.3	152.9
Smorgon	171.3	139.3	234.0	303.6	403.5	470.1	422.3
Shchuchin	11.4	12.2	2.9	3.3	15.8	12.1	16.9

Continued

	2013	2014	2015	2016	2017	2018	2019
Minsk city	1 162.1	995.8	1 177.0	2 067.5	2 473.3	2 760.1	2 829.3
Minsk region	5 871.2	5 772.1	3 361.9	4 015.5	4 303.9	5 509.8	4 816.0
District:							
Berezino	50.4	33.0	40.8	30.9	87.9	197.7	50.1
Borisov	174.8	198.9	184.9	150.2	196.1	217.6	118.3
Vileyka	60.5	33.5	37.2	24.1	20.0	20.9	34.1
Volozhin	3.7	7.3	5.9	3.4	3.9	13.5	12.8
Dzerzhinsk	11.0	7.2	5.0	4.5	14.1	96.4	437.2
Kletsk	12.3	15.7	10.0	13.8	7.7	22.3	16.5
Kopyl	37.4	43.3	11.9	8.9	7.5	4.1	16.5
Krupki	40.3	45.8	50.4	60.6	73.9	50.2	57.4
Logoysk	1 613.2	1 330.8	416.8	1 043.1	1 018.3	1 378.1	989.2
Lyuban	27.1	67.8	37.8	71.4	113.9	1 311.1	828.2
Minsk	745.0	659.5	117.1	84.3	81.5	345.6	813.1
Molodechno	185.0	210.5	158.0	161.0	251.5	201.0	184.6
Myadel	23.3	1 151.9	1.5	30.2	42.4	38.5	39.2
Nesvizh	825.2	652.1	871.6	630.0	706.1	723.4	588.2
Pukhovichy	505.0	240.2	363.9	320.6	61.7	286.0	165.5
Slutsk	421.1	166.0	176.4	167.8	197.8	317.9	207.5
Smolevichy	23.0	29.4	26.7	40.1	52.8	28.2	65.1
Soligorsk	967.8	718.4	763.0	1 080.3	1 236.6	103.4	54.7
Staryie Dorogi	13.2	15.1	12.7	14.2	20.3	26.9	26.3
Stolbtsy	107.8	86.2	47.6	55.7	85.2	95.2	89.8
Uzda	15.1	19.5	13.6	12.3	15.7	20.3	4.5
Cherven	9.3	40.1	9.2	8.2	8.9	11.6	17.2

Continued

	2013	2014	2015	2016	2017	2018	2019
Mogilev region	2 827.7	1 847.7	2 557.1	2 128.1	3 481.0	3 911.8	3 335.5
Mogilev, city of	223.2	224.3	411.4	296.8	981.7	564.9	415.9
District:							
Belynichy	7.0	6.6	5.8	5.5	7.7	10.9	10.0
Bobruysk	357.8	291.8	235.7	305.8	241.8	322.6	253.8
Bykhov	2.4	3.5	10.6	4.8	2.0	11.4	30.7
Glusk	9.9	14.3	9.2	17.6	20.2	1.3	0.8
Gorki	10.4	20.2	11.8	7.8	11.3	8.4	9.4
Dribin	0.4	0.2	0.3	0.5	0.3	0.1	0.1
Kirovsk	4.0	5.3	1.3	1.5	2.9	2.0	3.3
Klimovichy	25.1	13.6	6.0	7.0	5.8	5.7	7.9
Klichev	6.3	4.3	1.3	2.2	2.6	2.0	6.1
Kostyukovichy	2 039.0	1 111.1	1 756.6	1 351.8	2 030.2	2 560.7	2 220.7
Krasnopolye	0.0	0.0	0.0	0.1	0.0	0.1	0.2
Krichev	1.8	1.3	1.0	1.1	1.5	5.7	98.6
Krugloye	4.7	15.5	9.8	13.2	14.3	14.4	19.0
Mogilev	6.7	0.1	0.4	27.3	41.8	223.3	159.6
Mstislavl	2.9	3.4	2.4	2.4	3.1	3.3	3.2
Osipovichy	53.3	53.6	48.9	50.7	76.1	109.1	37.1
Slavgorod	0.6	0.5	0.1	0.0	0.2	0.7	0.8
Khotimsk	3.4	37.8	2.2	0.1	1.8	2.0	2.0
Chausy	4.2	0.1	6.4	6.2	8.4	10.1	6.4
Cherikov	8.4	2.0	0.7	1.3	0.4	0.4	0.6
Shklov	56.5	38.2	35.6	24.4	27.0	53.0	49.4

13.9. Industrial waste by hazard class in 2019

	Genera-tion	Recovery	Disposal	Of which			
				storage facilities	burial sites	onsite storage	neutrali-sation
	Thousand tonnes						
Total	60 836.8	18 433.1	42 987.7	41 243.4	966.4	591.1	186.8
of which:							
Non-hazardous	10 604.5	9 659.7	1 237.0	358.3	559.0	306.1	13.5
Class 1 (extremely hazardous)	40.2	26.2	15.0	–	0.1	1.9	13.1
Class 2 (high-hazard)	17.0	10.7	6.4	0.0	0.0	0.1	6.3
Class 3 (hazardous)	2 008.2	1 468.4	622.2	398.8	177.1	35.4	10.9
Class 4 (low-hazard)	48 167.0	7 268.2	41 107.1	40 486.3	230.2	247.6	143.0
	As % of total						
Total	100	100	100	100	100	100	100
of which:							
Non-hazardous	17.4	52.4	2.9	0.9	57.8	51.8	7.2
Class 1 (extremely hazardous)	0.1	0.1	0.0	0.0	0.0	0.3	7.0
Class 2 (high-hazard)	0.0	0.1	0.0	0.0	0.0	0.0	3.4
Class 3 (hazardous)	3.3	8.0	1.4	1.0	18.3	6.0	5.8
Class 4 (low-hazard)	79.2	39.4	95.6	98.2	23.8	41.9	76.5

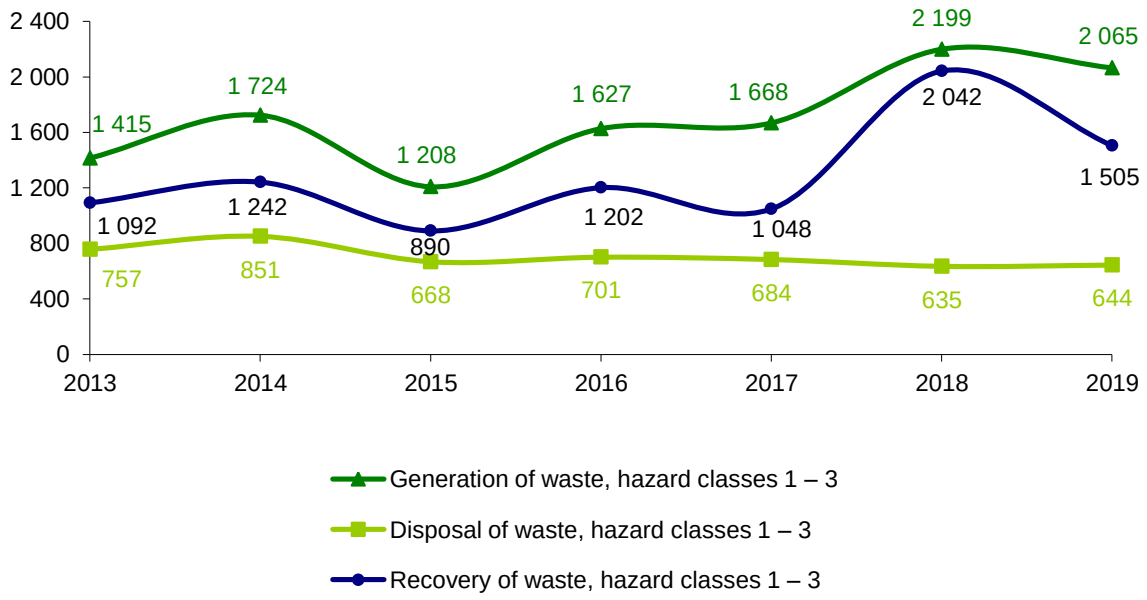
13.10. Generation, recovery and disposal of industrial waste hazard classes 1 – 3

(thousand tonnes)

	2013	2014	2015	2016	2017	2018	2019
Generation	1 415.4	1 724.0	1 207.8	1 626.6	1 668.1	2 199.4	2 065.3
Recovery	1 091.7	1 242.2	889.8	1 201.6	1 047.9	2 041.9	1 505.2
Disposal – total	757.0	851.4	668.1	701.0	683.6	634.9	643.7
of which:							
storage facilities	563.0	581.0	496.5	472.5	469.9	430.4	398.8
burial sites	124.7	153.6	99.3	116.0	110.7	123.9	177.2
onsite storage	48.0	57.5	47.8	78.8	53.2	51.5	37.4
neutralisation	21.3	59.3	24.5	33.8	49.8	29.1	30.3

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 2019

(thousand tonnes)

	Genera-tion	Reco-very	Disposal	Of which			
				storage facilities	burial sites	onsite storage	neutrali-sation
			Total				
Republic of Belarus	2 065.3	1 505.2	643.7	398.8	177.2	37.4	30.3
Regions and Minsk city:							
Brest	670.7	642.2	31.1	6.4	20.8	3.6	0.2
Vitebsk	78.3	24.9	54.5	8.1	43.8	2.4	0.1
Gomel	151.2	139.2	41.9	3.3	31.2	7.3	0.1
Grodno	405.9	317.8	120.9	83.8	16.5	7.0	13.6
Minsk city	133.4	104.6	35.1	0.2	30.0	2.3	2.5
Minsk	308.5	68.9	246.8	206.6	16.1	11.6	12.5
Mogilev	317.3	207.7	113.5	90.4	18.7	3.0	1.3
			As % of total				
Republic of Belarus	100	100	100	100	100	100	100
Regions and Minsk city:							
Brest	32.5	42.7	4.8	1.6	11.7	9.6	0.7
Vitebsk	3.8	1.7	8.5	2.0	24.7	6.5	0.4
Gomel	7.3	9.2	6.5	0.8	17.6	19.7	0.2
Grodno	19.7	21.1	18.8	21.0	9.3	18.8	44.7
Minsk city	6.5	7.0	5.5	0.1	17.0	6.2	8.4
Minsk	14.9	4.6	38.3	51.8	9.1	31.0	41.2
Mogilev	15.4	13.8	17.6	22.7	10.6	8.1	4.4

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

(thousand tonnes)

	2013	2014	2015	2016	2017	2018	2019
Waste generated							
Republic of Belarus	3 682	3 723	3 735	3 794	3 801	3 795	3 785
Regions and Minsk city:							
Brest	468	457	441	448	477	472	554
Vitebsk	387	405	416	414	419	425	434
Gomel	633	605	600	598	613	617	578
Grodno	382	380	381	413	422	446	450
Minsk city	951	985	985	1 008	968	935	773
Minsk	475	500	522	525	514	543	543
Mogilev	387	391	390	389	389	358	453
Waste recovered (collection of secondary raw materials)							
Republic of Belarus	442	540	583	599	654	714	851
Regions and Minsk city:							
Brest	55	68	75	72	77	91	169
Vitebsk	42	48	64	71	69	75	81
Gomel	84	89	90	94	101	111	122
Grodno	46	54	58	55	75	82	90
Minsk city	127	154	158	169	181	190	201
Minsk	34	56	65	65	70	77	94
Mogilev	54	71	74	73	80	88	94
Waste landfilled							
Republic of Belarus	3 240	3 183	3 152	3 195	3 148	3 081	2 934
Regions and Minsk city:							
Brest	413	389	366	376	399	380	385
Vitebsk	345	357	352	342	349	350	354
Gomel	549	516	510	504	511	505	456
Grodno	336	326	324	358	347	365	359
Minsk city	824	831	827	839	787	745	572
Minsk	441	444	457	460	444	465	449
Mogilev	334	320	316	316	310	270	358

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

(thousand tonnes)

	2013	2014	2015	2016	2017	2018	2019
Total							
Republic of Belarus	441.8	539.8	582.6	599.5	653.8	714.3	850.9
Regions and Minsk city:							
Brest	55.1	68.2	74.6	72.3	77.1	91.1	169.2
Vitebsk	41.9	47.6	63.7	71.3	69.1	75.0	80.5
Gomel	83.7	89.2	90.2	94.2	101.4	111.3	121.7
Grodno	46.2	54.1	57.5	54.9	74.7	81.8	90.2
Minsk city	127.3	153.9	157.9	168.6	181.3	189.6	201.0
Minsk	34.0	55.9	64.8	65.0	70.4	77.4	94.0
Mogilev	53.6	70.9	73.9	73.1	79.9	88.2	94.3
of which:							
paper and cardboard							
Republic of Belarus	284.4	329.4	323.0	306.5	329.0	355.9	381.8
Regions and Minsk city:							
Brest	34.0	41.1	41.2	35.7	37.3	42.1	49.1
Vitebsk	29.0	31.6	33.1	33.1	31.4	35.2	37.9
Gomel	49.2	51.4	45.7	41.7	41.4	42.8	47.8
Grodno	22.9	28.0	27.8	26.0	34.8	36.8	40.1
Minsk city	98.4	109.0	103.4	105.6	114.7	123.8	126.0
Minsk	22.5	32.2	34.9	31.4	34.1	37.3	41.5
Mogilev	28.4	36.1	36.9	33.0	35.3	37.9	39.5
glass							
Republic of Belarus	83.2	122.9	164.3	168.2	181.3	189.5	188.1
Regions and Minsk city:							
Brest	13.1	17.9	21.3	19.3	20.3	25.5	26.7
Vitebsk	4.8	6.8	19.1	21.7	20.1	20.1	17.8
Gomel	18.1	19.5	25.8	28.7	34.5	38.3	36.1
Grodno	16.1	18.0	20.8	16.0	22.7	25.3	25.6
Minsk city	14.9	28.9	38.3	43.1	41.2	35.5	34.1
Minsk	5.7	13.7	19.4	19.2	19.2	19.6	22.8
Mogilev	10.5	18.1	19.6	20.2	23.3	25.2	25.0

Continued

	2013	2014	2015	2016	2017	2018	2019
				polymer			
Republic of Belarus	37.2	47.9	52.1	67.3	77.8	85.8	97.2
Regions and Minsk city:							
Brest	3.9	4.7	6.2	8.6	10.3	13.0	14.2
Vitebsk	4.0	5.1	5.8	8.7	8.9	9.0	9.1
Gomel	10.9	12.8	13.3	16.8	16.7	17.7	17.7
Grodno	2.9	3.6	4.1	6.5	9.7	10.6	11.0
Minsk city	7.9	9.8	9.8	10.3	12.6	15.2	20.9
Minsk	2.6	5.0	5.0	7.5	9.3	9.4	12.3
Mogilev	5.0	6.9	7.9	8.9	10.3	10.9	12.0
				worn tires			
Republic of Belarus	37.0	39.6	43.2	44.6	46.8	51.9	54.2
Regions and Minsk city:							
Brest	4.1	4.5	5.9	6.6	6.7	7.0	7.6
Vitebsk	4.1	4.1	5.7	6.1	6.3	6.7	6.9
Gomel	5.5	5.5	5.4	5.4	5.9	7.4	6.9
Grodno	4.3	4.5	4.8	5.2	5.7	6.5	7.0
Minsk city	6.1	6.2	6.4	6.5	8.0	7.2	7.3
Minsk	3.2	5.0	5.5	5.1	5.1	6.3	7.3
Mogilev	9.7	9.8	9.5	9.7	9.1	10.8	11.2
				waste oil			
Republic of Belarus	…	…	…	8.3	12.8	16.8	18.2
Regions and Minsk city:							
Brest	…	…	…	1.6	1.9	2.5	2.5
Vitebsk	…	…	…	1.0	1.6	1.9	2.2
Gomel	…	…	…	1.1	2.0	2.3	2.6
Grodno	…	…	…	0.9	1.4	1.9	2.0
Minsk city	…	…	…	1.5	2.9	3.6	4.0
Minsk	…	…	…	1.4	1.6	2.9	2.8
Mogilev	…	…	…	0.8	1.3	1.7	2.1

Continued

	2013	2014	2015	2016	2017	2018	2019
waste of electrical and electronic equipment							
Republic of Belarus	…	…	…	4.5	6.2	14.4	25.5
Regions and Minsk city:							
Brest	…	…	…	0.5	0.6	1.0	2.6
Vitebsk	…	…	…	0.8	0.8	2.0	3.3
Gomel	…	…	…	0.5	1.0	2.8	3.7
Grodno	…	…	…	0.3	0.4	0.6	1.9
Minsk city	…	…	…	1.6	1.9	4.3	7.7
Minsk	…	…	…	0.4	1.1	1.9	3.7
Mogilev	…	…	…	0.5	0.6	1.7	2.7

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

(thousand cubic metres)

	2013	2014	2015	2016	2017	2018	2019
Republic of Belarus	1 640	1 422	1 301	1 317	1 320	1 065	605
Regions and Minsk city:							
Brest	236	262	247	231	200	225	156
Vitebsk	191	64	81	106	175	89	53
Gomel	279	260	224	179	166	144	60
Grodno	240	216	200	193	190	174	82
Minsk city	53	47	37	16	8	6	7
Minsk	434	470	403	465	456	364	199
Mogilev	206	103	110	125	125	63	47

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)

	2014	2015	2016	2017	2018	2019	2020
Republic of Belarus	970.7	941.3	927.7	903.1	877.2	864.4	848.0
Region:							
Brest	57.7	52.6	52.1	50.7	45.7	41.6	36.4
Vitebsk	0.3	0.3	0.2	0.2	0.2	0.2	0.1
Gomel	567.6	561.7	552.0	533.3	516.7	513.4	510.6
Grodno	22.9	20.8	19.8	18.3	18.3	16.8	15.1
Minsk	51.2	50.0	48.7	46.9	44.7	43.2	40.1
Mogilev	271.0	255.9	254.9	253.7	251.6	249.2	245.8

[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, 2020[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	848.0	10.1	683.9	147.7	16.4	0.1
Region:						
Brest	36.4	2.7	35.5	0.9	0.0	–
Vitebsk	0.1	0.0	0.1	–	–	–
Gomel	510.6	39.4	393.1	104.4	13.1	0.1
Grodno	15.1	1.2	14.8	0.3	–	–
Minsk	40.1	2.2	39.9	0.2	–	–
Mogilev	245.8	19.7	200.5	42.0	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)

	2014	2015	2016	2017	2018	2019	2020
Republic of Belarus	1 457.4	1 424.8	1 395.4	1 375.9	1 356.3	1 315.5	1 283.8
Region:							
Brest	100.2	94.2	89.7	85.7	83.6	80.3	78.5
Vitebsk	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Gomel	863.5	846.5	831.4	824.8	816.1	798.2	777.6
Grodno	33.8	31.4	30.0	26.0	25.6	18.8	16.9
Minsk	33.9	32.9	31.7	31.4	30.9	29.6	28.8
Mogilev	425.9	419.7	412.5	407.9	400.0	388.5	381.9

[1)] Data of the Ministry of Forestry.

14.4. Area of forest stock contaminated with Caesium-137 by region as of January 1, 2020[1)]

	Total area of forest fund contaminated		Of which by soil contamination density, thsd ha			
	thsd ha	% of 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	1 560.3	16.2	997.3	383.4	153.1	26.5
Region:						
Brest	78.5	5.5	76.4	2.1	–	–
Vitebsk	0.1	0.0	0.1	–	–	–
Gomel	1 050.9	45.7	623.3	287.3	114.0	26.3
Grodno	16.9	1.7	16.8	0.1	–	–
Minsk	32.0	1.8	31.8	0.2	–	–
Mogilev	381.9	30.1	248.9	93.7	39.1	0.2
			of which area of forest stock of the Ministry of Forestry			
Republic of Belarus	1 283.8	15.2	894.5	287.6	101.2	0.5
Region:						
Brest	78.5	6.2	76.4	2.1	–	–
Vitebsk	0.1	0.0	0.1	–	–	–
Gomel	777.6	41.6	523.7	191.5	62.1	0.3
Grodno	16.9	1.8	16.8	0.1	–	–
Minsk	28.8	1.9	28.6	0.2	–	–
Mogilev	381.9	30.9	248.9	93.7	39.1	0.2

[1)] Data of the Ministry of Forestry.

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

(hectares)

	2013	2014	2015	2016	2017	2018	2019
Republic of Belarus	4 818	5 767	5 541	6 037	7 359	7 707	10 708
Region:							
Brest	154	118	188	290	280	851	893
Gomel	3 232	3 702	3 403	4 052	5 543	5 091	7 699
Grodno	96	102	104	38	34	10	88
Minsk	108	83	87	73	70	78	97
Mogilev	1 228	1 762	1 759	1 584	1 432	1 677	1 931

14.6. Forest seeding and planting on areas contaminated with Caesium-137 by region in 2019

(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	10 708	8 874	1 357	477
Region:				
Brest	893	889	4	–
Gomel	7 699	6 198	1 091	410
Grodno	88	88	–	–
Minsk	97	97	–	–
Mogilev	1 931	1 602	262	67
	of which on land excluded from agricultural use			
Republic of Belarus	256	77	–	179
Region:				
Gomel	230	51	–	179
Grodno	2	2	–	–
Mogilev	24	24	–	–

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

(at current prices)

	2013	2014	2015	2016	2017	2018	2019
BYN million (2013 – 2015 – BYR billion)							
Republic of Belarus	1 029.1	607.3	789.9	72.6	67.4	69.1	73.0
Regions and Minsk city:							
Brest	133.4	73.8	75.2	9.8	9.9	9.3	12.8
Vitebsk	0.8	2.3	3.0	1.5	–	–	–
Gomel	770.8	435.8	535.1	33.1	36.7	46.7	38.4
Grodno	14.9	3.3	–	–	–	–	–
Minsk city	–	–	2.0	0.3	0.0	–	–
Minsk	8.7	3.9	2.7	–	–	–	–
Mogilev	100.6	88.1	171.9	27.9	20.7	13.0	21.8
As % of total investment							
Republic of Belarus	0.5	0.3	0.4	0.4	0.3	0.3	0.3
Regions and Minsk city:							
Brest	0.6	0.3	0.4	0.5	0.4	0.3	0.4
Vitebsk	0.0	0.01	0.02	0.09	–	–	–
Gomel	2.3	1.1	1.3	1.3	1.2	1.4	0.9
Grodno	0.1	0.01	–	–	–	–	–
Minsk city	–	–	0.0	0.0	0.0	–	–
Minsk	0.02	0.01	0.01	–	–	–	–
Mogilev	0.6	0.5	0.9	2.0	1.7	0.8	1.1

ENVIRONMENTAL PROTECTION
IN THE REPUBLIC OF BELARUS

Statistical book

Responsible for the issue:

Z. V. Yakubovskaya

Authorized for publishing: 30.07.2020. Format 60x84 1/8.
Offset paper. Xerox.
Conv. printed sheets – 23,25. Printed sheets – 25.
Print run: 3 copies. Order № 1498.

National Statistical Committee of the Republic of Belarus
12 Partizansky avenue, 220070 Minsk
Tel.: (375-17) 378 81 32;
E-mail: belstat@belstat.gov.by
http://www.belstat.gov.by

Republican Unitary Enterprise “Information and Computer Centre
of the National Statistical Committee of the Republic of Belarus”
12a-8a, Partizansky avenue, 220070 Minsk
ЛП № 02330/10 of 28.10.2013
Tel.: (375-17) 378 87 18; (375-17) 379 70 32
Fax.: (375-17) 378 52 11
www.ivcstat.by