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 250 / . , -  
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 280 . [1], , ,70 , , -  
 « »<sup>1</sup> 490 -  
 :  
 243  
 590 – [5]. , .  
 – 90%,  
 2% 36% , -  
 20%. -  
 , .  
 : , , -  
 , -  
 [7]. -  
 , , 2012 . -  
 , -  
 2017 .

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1 .. : ? / . – URL:  
[http://www.greenpeace.org/russia/Global/russia/report/toxics/recycle/RUSSIA-GARBAGE\\_FIN.pdf](http://www.greenpeace.org/russia/Global/russia/report/toxics/recycle/RUSSIA-GARBAGE_FIN.pdf) .

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70		280	
, 25%	15%		60%
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(life-cycle assessment).

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 : , , , [11-14].  
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2		2013	22	39	
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29.12.2014 ., -

« » 1998 ., -

2017 .

3. 25.07.2017 ., -

2018–2021 .

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« - », -

2017 . -

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3

2019 .

1

2015  
 78,6%  
 1,6 ( . 1).

	2015, 1	2015, .	2000, .	2015, %
	<b>1,59</b>	<b>37997,6</b>	<b>21275,6</b>	<b>4,8</b>
	<b>1,56</b>	<b>30046,8</b>	<b>16015,6</b>	<b>4,8</b>
	1,78	6415,8	4389,2	5,9
	0,13	124,4	56,0	97,1
	5,42	1162,9	514,1	0,7
	0,81	255,2	93,1	...
	1,99	1065,7	441,3	...
	1,40	3331,7	1363,1	...
	1,20	1302,0	1031,7	...
	2,02	5777,3	2798,7	9,7
	2,07	4995,1	2269,3	...
	1,72	4687,3	3742,8	16,0
	1,06	2924,7	1416,4	...
	1,20	2375,0	1313,2	...
	1,90	2045,5	975,9	0,3
( )	1,60	1535,0	870,8	...

2012: / -  
 (www.gks.ru).



12	1	11	1			
,	2017	.				
				2017	.	-
12	1	50	1			-
						-
	6.					
		15-20	7.			
				25	.	-
2	.		1	.	.	-
				2017	.	-
						-
						-
				( )		
					4,5	
16	.	1	.			-
						-
,						-
		400	.			
16,2	.	1	.		6,5	„
						85%.
			8.			
				3,3	[4]	6,9
						’

6 „ » 2015–2024 . (URL: [http://www.gubkinadm.ru/images/document/sessiisovdeputatov/prilog\\_28s\\_2s\\_2r.pdf](http://www.gubkinadm.ru/images/document/sessiisovdeputatov/prilog_28s_2s_2r.pdf)).

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1 . 9. -  
 ( , 220–300 30 . ), -  
 1 . . -  
 . -  
 2018–2025 . -  
 , 1,6%, -  
 2008–2015 . -  
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 2025 . 100%- -  
 . -  
 ( ) 16%. -  
 2021 . 100%- -  
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 , 2025 . 16 60%. 2025 . -  
 , 10, 10%, -

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9 ., : -  
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 . – URL: [http://invest-in-voronezh.ru/download/inv\\_projects/perspective/other/Sozdanie\\_municipalnogo\\_pererabat\\_kompleksa.pdf](http://invest-in-voronezh.ru/download/inv_projects/perspective/other/Sozdanie_municipalnogo_pererabat_kompleksa.pdf) .

10  
 26%.

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( . 2, 3)

204

80

153 390

60 80%

(

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12%

33%,

25%.

33%).

25%

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	2018	2019	2020	2021	2022	2023	2024	2025
	9969	10130	10294	10461	10630	10803	10978	11155
-	478	2026	3088	5230	6378	8102	9880	11155
-	77	324	494	837	1021	1296	1581	1785
	124	527	803	1360	1658	2107	2569	2900
	0	0	0	0	0	0	0	0
( )	9768	9279	8997	8264	7952	7400	6828	6470
, , .	11,3	8,8	15,3	9,3	12,8	13,0	8,0	1,4
:	-	0,4	0,4	0,4	0,4	0,3	0,3	0,3
	2,0	2,0	-	-	-	-	-	-
-	9,3	6,4	12,9	6,9	10,3	10,7	7,7	1,1
-	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
, ,	1,6	6,7	10,2	17,3	21,0	26,7	32,6	36,8
-	12,0	12,2	12,4	12,6	12,8	13,0	13,2	13,4
, %	11,7	35,5	45,2	57,9	62,3	67,3	71,2	73,3
, %	4,8	20,0	30,0	50,0	60,0	75,0	90,0	100,0

. 2

	2018	2019	2020	2021	2022	2023	2024	2025
, %	16,0	16,0	16,0	16,0	16,0	16,0	16,0	16,0
, %	26,0	26,0	26,0	26,0	26,0	26,0	26,0	26,0
-	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
( ), %	98,0	91,6	87,4	79,0	74,8	68,5	62,2	58,0

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( )

	2018	2019	2020	2021	2022	2023	2024	2025
, : ,	9969	10130	10294	10461	10630	10803	10978	11155
-	478	2026	5147	10461	10630	10803	10978	11155
-	77	810	2265	5021	5528	5941	6257	6693
	124	527	1338	2720	2764	2809	2854	2900
	0	100	200	300	400	500	600	700
( )	9768	8726	6558	2520	2072	1719	1466	1095
, , .	29,9	57,1	92,4	4,9	5,0	4,9	5,0	5,0
:	-	0,4	0,4	0,4	0,4	0,3	0,3	0,3
	2,0	2,0	-	-	-	-	-	-

	2018	2019	2020	2021	2022	2023	2024	2025
-								
-	26,3	53,1	90,3	2,9	2,9	3,0	3,0	3,1
-	1,6	1,6	1,6	1,6	1,6	1,6	1,6	1,6
,	1,6	10,7	28,8	61,9	66,4	70,1	73,1	77,0
-	12,0	12,2	12,4	12,6	12,8	13,0	13,2	13,4
, %	11,7	46,7	70,0	83,1	83,9	84,4	84,7	85,2
, %	4,8	20,0	50,0	100,0	100,0	100,0	100,0	100,0
, %	16,0	40,0	44,0	48,0	52,0	55,0	57,0	60,0
, %	26,0	26,0	26,0	26,0	26,0	26,0	26,0	26,0
, %	0,0	14,5	13,0	11,0	17,1	24,4	32,2	44,8
( , %	98,0	86,1	63,7	24,1	19,5	15,9	13,4	9,8

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— 0,6–1,5%  
2017 .

24,9%

## 2018–2025 .

					2018–2025,	
					-	-
		%		%	-	-
	2017		2017			
	<b>79,9</b>	<b>2,1</b>	<b>204,1</b>	<b>4,8</b>	<b>152,9</b>	<b>389,5</b>
	<b>63,2</b>	<b>4,4</b>	<b>161,4</b>	<b>10,6</b>	<b>120,9</b>	<b>308,0</b>
	13,6	0,6	34,8	1,5	25,8	65,8
	0,4	3,2	1,2	9,2	0,5	1,3
	2,4	7,2	6,0	14,5	4,7	11,9
	0,5	4,7	1,3	13,9	1,0	2,6
	2,2	8,1	5,5	24,9	4,3	10,9
	6,8	9,0	17,2	20,4	13,4	34,2
	2,6	3,0	6,7	7,3	5,2	13,3
	12,6	3,0	32,2	7,6	23,2	59,2
	10,1	4,1	25,8	10,0	20,1	51,2
	10,6	6,4	27,4	13,2	18,9	48,0
	5,9	3,6	15,1	8,6	11,8	30,0
	4,8	5,1	12,3	12,3	9,6	24,3
	4,2	4,0	10,6	11,2	8,2	21,0
( )	3,1	3,1	7,9	7,9	6,2	15,7



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2. . . . : -  
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3. « » : / . . . ,  
2014. - 248 . ; . . . . -
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)// . . . .
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6. . . . , 2018. - 296 . -
7. . . . . - :  
, 2010. - 240 .
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- ; - , 2013. - . 76-84. // -



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, 17, e-mail: gilmundinov@mail.ru).  
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, 17, e-mail: tagaeva@ieie.nsc.ru).

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**V.M. Gilmundinov, T.O. Tagaeva**

## **ESTIMATION OF THE POTENTIAL PROCESSING OF HOUSEHOLD SOLID WASTE IN THE SIBERIAN REGIONS**

*The paper is concerned with the current trends and further prospects in the field of household solid waste (HSW) in the regions of Siberia with domestic and world experience. We demonstrate the weakness of the institu-*

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*tional environment that emerged in the sphere of HSW circulation. It is shown that the institutional environment is a key factor hindering the development of modern waste processing forms. We suggest an aggregated approach to scenario simulating of HSW circulation, the application of which allows obtaining estimates of the required capital investments for the Siberian regions. The endorsement of this approach indicates high requirements to the return on sales of secondary material resources and lack of incentives to invest in an increase of household solid waste processing, which significantly limits the effectiveness of government measures to reform the industry.*

**Keywords:** household solid waste; utilization; waste; landfill; waste treatment; capital investment; institutional environment; treatment potential; Siberia

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### Information about the authors

*Gilmundinov, Vadim Manavirovich* (Novosibirsk, Russia) – Candidate of Sciences (Economics), Deputy Director of the Institute of Economics and Industrial Engineering, Siberian Branch of the Russian Academy of Sciences (17, Ac. Lavrentiev av., Novosibirsk, 630090, Russia, e-mail: [gilmundinov@mail.ru](mailto:gilmundinov@mail.ru)).

*Tagaeva, Tatyana Olegovna* (Novosibirsk, Russia) – Doctor of Sciences (Economics), Leading Researcher at the Institute of Economics and Industrial Engineering, Siberian Branch of the Russian Academy of Sciences (17, Ac. Lavrentiev av., Novosibirsk, 630090, Russia, e-mail: [tagaeva@ieie.nsc.ru](mailto:tagaeva@ieie.nsc.ru)).

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