

*NATIONAL STATISTICAL SERVICE  
REPUBLIC OF ARMENIA*

**Environmental Expenditures**  
**in the Republic of Armenia**  
**for 2007**

Yerevan - 2009

In the present day world which is characterized by the information variety and intensity of information flows, the possible “combination” of three participants of official statistics such as respondents, users and taxpayers, “occupying the angles of statistical triangle” having different dispositions, is of great importance, especially from the viewpoint of perception requirements “communication skills levelling” by national and international levels.

Activities on development of the methodology and instruments of the survey have been carried out with the practical assistance of the experts of the Statistics Sweden, Mrs. Marianne Eriksson and Mr. Mats Eberhardsson, for which the National Statistical Service of RA expresses its gratitude to them.

The National Statistical Service of RA (NSS RA) would like to thank all the respondents who have supplied information for this statistical publication and, from the above mentioned considerations, welcomes any comments and suggestions from the respondents and taxpayers, as statistical users, for the future developments of statistical publication.

You are kindly asked to provide your comments and suggestions to the Statistical Information Dissemination and Marketing Division of NSS RA for the further improvement of publications.

3 Government House, Republic Ave., Yerevan, 0010, Republic of Armenia

Tel.: (374 10) 52-33-56

Fax: (374 10) 52-19-21

E-mail: [info@armstat.am](mailto:info@armstat.am)

Web site of NSS RA: <http://www.armstat.am>, mirror website [www.armstat.info](http://www.armstat.info)

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## Introduction

The National Statistical Service of RA is going to introduce the complementary (satellite) accounts (in particular also environmental accounts) simultaneously with the complete formation of integrated macroeconomic comparable data system, i.e. System of National Accounts (SNA). These satellite accounts will enable to provide the analysis of certain spheres of economy, as well as implement the comparative analysis of economy and separate spheres.

The environmental satellite accounts will support to develop the ecologically balanced and sustainable economic development programs and measures and their modified accounts will help to appropriate experts to implement ecological analysis, characterize the ecological rating of economic entities. The satellite analyses are foreseen to “neutralize” two main omissions usually occurring in the traditional national accounts, i.e. limit of the natural resources is threaten to keep economic efficiency on sustainable level and environmental deterioration has negative influence on the health and welfare of population. It is necessary to mention, that the analyses will provide not only modification of traditional elements of the national accounts, but also inclusion of new indicators (sometimes import). In particular, nonproduction natural assets, such as land, minerals, forests, etc. are considered assets in the SNA only in case, when they are under actual control of any institutional unit and expenditures for their use are not visible in the production expenditures. In current systems of the environmental (ecological) economic accounting the wider concepts on expenditure, accumulation of capital, stock in comparison with the SNA are used. Those concepts are complemented by indicators in kind on environmental expenditure and use of natural assets in production or modified as value indicators of corresponding factors.

In nowadays, the following three main approaches of implementation of environmental accounts complementing each other are used:

- natural resources accounts – based on calculation of indicators in kind,
- complementary accounts in value terms – based on corresponding value indicators in the SNA. This approach in comparison with the first one includes narrower circle of environmental issues and presumes the calculation of environmental expenditures of natural and other assets, when calculating actual environmental expenditures and net outcomes,
- measuring of welfare level – based on observation of consequences of environmental deterioration on people, excluding those, whose activity resulted in negative changes.

This work is aimed to study one element of the second approach of environmental accounts, i.e. environmental investments in the republic, their accounting status and difficulties available in this sphere. The report is foreseen for environmental investors, experts and analysers dealing with their registration, as well as for the general public.

## A. General Description of Environmental Expenditures for 2007

Environmental expenditures are the capital investments directed to the prevention of environment pollution and liquidation of pollution consequences and current expenditures of governmental bodies and organizations dealing with environmental activities.

According to the environmental expenditures of RA Public Governmental (and Local Self-administration) bodies and results of the sample survey of organizations, the total environmental expenditures in the republic for 2007 comprised 28.1<sup>1</sup> bil. drams, 46.4% of which were capital investments and 53.6% - current expenditures.

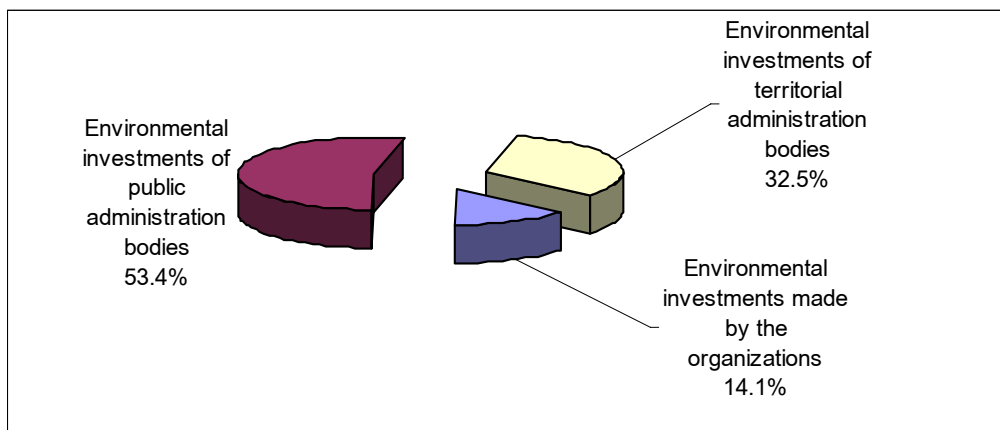
**Table 1. Environmental expenditures in the Republic of Armenia for 2007**

	Capital environmental expenditures	Current environmental expenditures	Total
Environmental expenditures of organizations	1821.8	6589.0	8410.8
Environmental Expenditures of Public Administration Bodies <sup>2</sup>	6928.5	7779.8	14708.3
Environmental Expenditures of Territorial Administration Bodies <sup>3</sup>	4215.4	774.6	4990.0
<b>Total</b>	<b>12965.7</b>	<b>15143.4</b>	<b>28109.1</b>

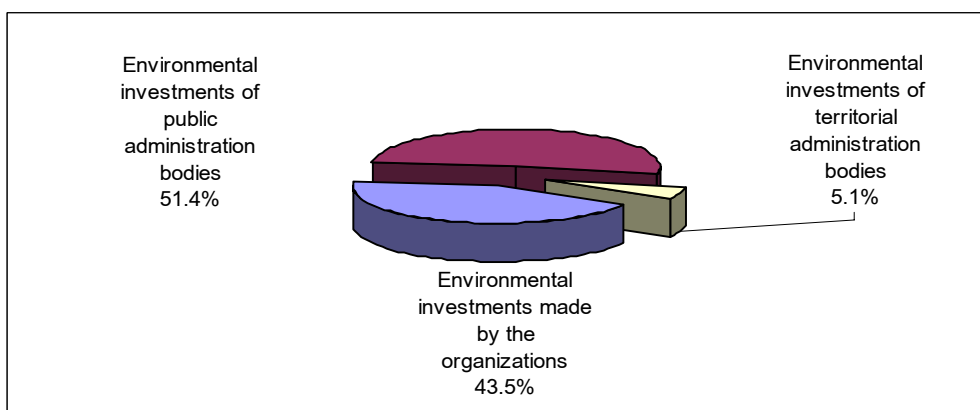
(mln. drams)

**Diagram 1. Distribution of environmental expenditures, %**

a/ environmental investments



b/ current environmental expenditures



<sup>1</sup> These expenditures implemented by the organizations are not considered only environmental by their content, as they include other, for example, technological expenditures with environmental elements, which have not any separate accounting by specific purpose and the methodology of calculation of the indicator as estimates.

<sup>2</sup> Here and hereinafter the indicators are presented without marzpetarans (municipality of region).

<sup>3</sup> Within the context of this survey, here and hereinafter, the concept «Territorial Administration Bodies» implies the marzpetarans (municipality of region) and self-administration bodies out of public administration bodies.

## **B. Environmental expenditures of organizations**

/According to the results of the sample survey of organizations/

The purpose of the given survey was to create the accounting system for expenditure component of environmental satellite accounts in the system of National Accounts of RA. It was implemented by the National Statistical Service of RA, with the methodological support of Statistics Sweden (SCB), financed by the Swedish International Development Agency (SIDA) in May-June of 2008.

:

*1. Survey objectives.* The purpose of the given work was to support the introduction of environmental satellite accounts in the system of National Accounts of the Republic of Armenia. The following issues have been observed for 2007 through the sample survey of organizations:

- implementation and registration of environmental protection investments,
- implementation and registration of environmental current expenditures,
- production of environmentally significant goods and services,
- implementation of payments for environment use and protection,
- development of mechanisms for complete registration of environmental expenditures,
- other issues related to the registration of environmental expenditures.

The results of the survey will be used for the complete registration of mechanisms of environmental expenditures: definition of statistical indicators, working out of reporting, information collection mechanism and corresponding methodological guidelines.

*2. Sample of the survey.* The survey coverage was defined based on the list of 2966 organizations implementing payment in kind from the administrative information register of the Ministry of Nature Protection of RA. 510 organizations or 17.2% of them, which possibly implemented environmental expenditure, were chosen by the environment experts. The others were the organizations (schools, cultural and small trade units, etc.) on the part of which probability to make environmental investments is insignificant or impossible.

419 organizations were covered by the survey based on the following principle: large and medium-sized (by the number of employees) organizations were covered fully (132 and 46 correspondingly) and small (157) and micro (84) - by the random sample method. By the way, the share of smalls in the total number of those separated for the survey comprised 84% and micro – 57.9%.

The sample was agreed with the experts from Statistics Sweden (SCB).

**Table 2. General population and sample of the survey by size of the organizations<sup>1</sup>**

	Total	including			
		micro	small	medium	large
General population of the survey	510	145	187	46	132
Number of the organizations covered by the survey	419	84	157	46	132

**Table 3. Survey sample with classification of organizations by NACE and size of organizations***(unit)*

Type of economic activity and code <sup>2</sup>		Micro	Small	Medium	Large	Total
A	Agriculture, hunting and forestry	4	10	6	6	26
B	Fishing	15	5	-	-	20
	<b>Sum</b>	<b>19</b>	<b>15</b>	<b>6</b>	<b>6</b>	<b>46</b>
CA	Mining and quarrying of energy producing materials	-	1	-	-	1
CB	Mining and quarrying, except of energy producing materials	33	49	5	5	92
DA	Manufacture of food products, beverages and tobacco	4	32	3	21	60
DB	Manufacture of textiles and textile products	-	1	-	-	1
DD	Manufacture of wood and wood products	-	6	-	-	6
DE	Manufacture of pulp, paper and paper products, publishing and printing	-	1	-	-	1
DG	Manufacture of chemicals, chemical products and man-made fibres	-	2	1	2	5
DH	Manufacture of rubber and plastic products	1	-	-	-	1
DI	Manufacture of other non-metallic mineral products	20	22	7	7	56
DJ	Manufacture of basic metals and fabricated metal products	1	1	1	7	10
DK	Manufacture of machinery and equipment	-	1	-	2	3
DL	Manufacture of electrical and optical equipment	-	1	2	1	4
DN	Manufacturing n.e.c.	1	1	-	2	4
E	Electricity, gas and water supply	-	7	5	10	22
	<b>Sum</b>	<b>60</b>	<b>125</b>	<b>24</b>	<b>57</b>	<b>266</b>
F	Construction	2	6	4	20	32
G	Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods	3	-	1	4	8
H	Hotels and restaurants	-	1	2	2	5
I	Transport, storage and communication	-	-	-	6	6
M	Education	-	-	-	3	3
N	Health and social work	-	2	-	28	30
O	Other community, social and personal service activity	-	8	9	6	23
	<b>Sum</b>	<b>3</b>	<b>11</b>	<b>12</b>	<b>49</b>	<b>75</b>
	<b>Total</b>	<b>84</b>	<b>157</b>	<b>46</b>	<b>132</b>	<b>419</b>

<sup>1</sup> The organizations were classified according to the requirements of the RA Law “On State Support of Small and Medium Entrepreneurship”.

<sup>2</sup> Classifications of types of economic activity and coding have been done according to the Armenian version of NACE.

**Table 4. Survey sample with classification of organizations by NACE and marzes**

Type of economic activity and code		<i>(unit)</i>											
		Yerevan city	Aragatsotn	Ararat	Armavir	Gegharkunik	Lori	Kotayk	Shirak	Syunik	Vayots Dzor	Tavush	Total
A	Agriculture, hunting and forestry	-	1	-	1	7	4	4	-	3	2	4	26
B	Fishing	-	-	6	5	2	1	2	2	-	2	-	20
CA	Mining and quarrying of energy producing materials	-	-	-	-	-	-	-	1	-	-	-	1
CB	Mining and quarrying, except of energy producing materials	7	3	1	5	5	10	13	28	9	3	8	92
DA	Manufacture of food products, beverages and tobacco	9	4	7	2	2	1	5	1	11	13	5	60
DB	Manufacture of textiles and textile products	-	-	-	-	-	-	-	-	1	-	-	1
DD	Manufacture of wood and wood products	-	-	-	-	1	-	-	-	-	-	5	6
DE	Manufacture of pulp, paper and paper products, publishing and printing	-	-	1	-	-	-	-	-	-	-	-	1
DG	Manufacture of chemicals, chemical products and man-made fibres	3	1	-	-	-	1	-	-	-	-	-	5
DH	Manufacture of rubber and plastic products	-	-	-	1	-	-	-	-	-	-	-	1
DI	Manufacture of other non-metallic mineral products	6	12	4	-	3	-	6	5	5	9	6	56
DJ	Manufacture of basic metals and fabricated metal products	4	-	-	-	1	1	3	-	-	1	-	10
DK	Manufacture of machinery and equipment	-	-	-	-	-	1	1	-	1	-	-	3
DL	Manufacture of electrical and optical equipment	1	-	-	-	2	-	-	-	1	-	-	4
DN	Manufacturing n.e.c.	-	-	-	-	-	-	2	-	-	2	-	4
E	Electricity, gas and water supply	4	-	-	7	2	1	2	1	2	3	-	22
F	Construction	2	2	2	-	5	4	2	3	3	3	6	32
G	Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods	4	-	-	-	1	1	-	1	-	-	1	8
H	Hotels and restaurants	-	1	1	-	1	-	-	2	-	-	-	5
I	Transport, storage and communication	4	-	-	1	1	-	-	-	-	-	-	6
M	Education	3	-	-	-	-	-	-	-	-	-	-	3
N	Health and social work	9	2	1	-	2	-	4	5	7	-	-	30
O	Other community, social and personal service activity	-	1	2	-	4	2	2	1	5	2	4	23
<b>Total</b>		<b>56</b>	<b>27</b>	<b>25</b>	<b>22</b>	<b>39</b>	<b>27</b>	<b>46</b>	<b>50</b>	<b>48</b>	<b>40</b>	<b>39</b>	<b>419</b>

**3. Methodology and Instruments of the Survey.** For the purpose of interviewing among organizations «An environmental expenditures of organizations (by the results of 2007)» questionnaire was developed (see Annex), the structure and content of which were agreed with the SCB's experts. The questionnaire included the following parts: environmental investments, saving of natural resources, current environmental expenditures, economic structure of environmental expenditures, production, import and export of environmentally significant products and services, etc.

Recording of environmental expenditures of public administration bodies was implemented through the reference table (see Annex) developed for that purpose.

The survey has been implemented by specially trained interviewers.

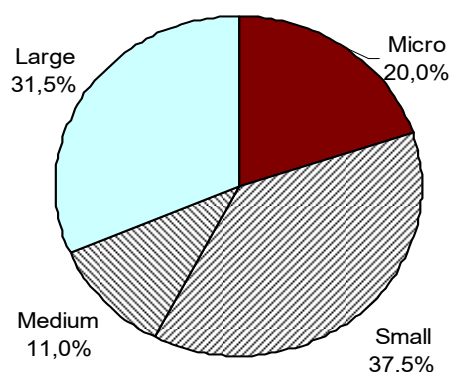
Questionnaires were completed in the organizations by the interviewers with the participation of the chief accountant of the given organization, based on the accounting documents.

Taking into account the fact, that the organizations don't implement the separate accounting of environmental expenditures, the participation of respondents in the survey was voluntary. The survey questionnaire and the instruction for its completion weren't considered as normative acts and were confirmed by the Resolution of the State Council on Statistics of RA N 14-A dated 04.05.2008.

#### **4. Summary Analysis of the Survey Results**

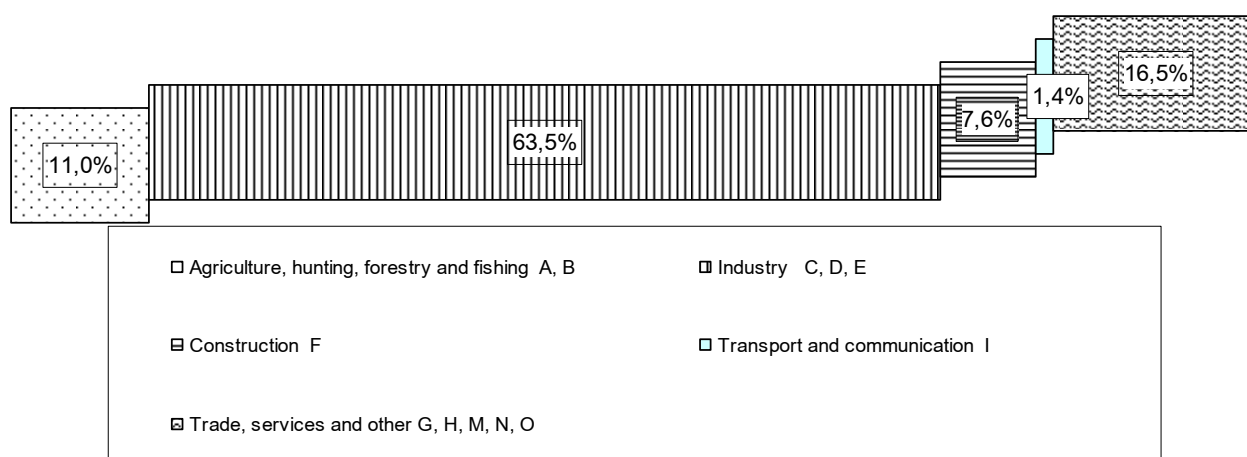
**4.1. Actual Coverage.** 419 organizations or 82.2% out of organizations possibly implemented environmental expenditure were actually covered by the survey. All participants have answered to the questions in the questionnaire.

**Diagram 2. Distribution of the organizations covered by the survey by size, %**

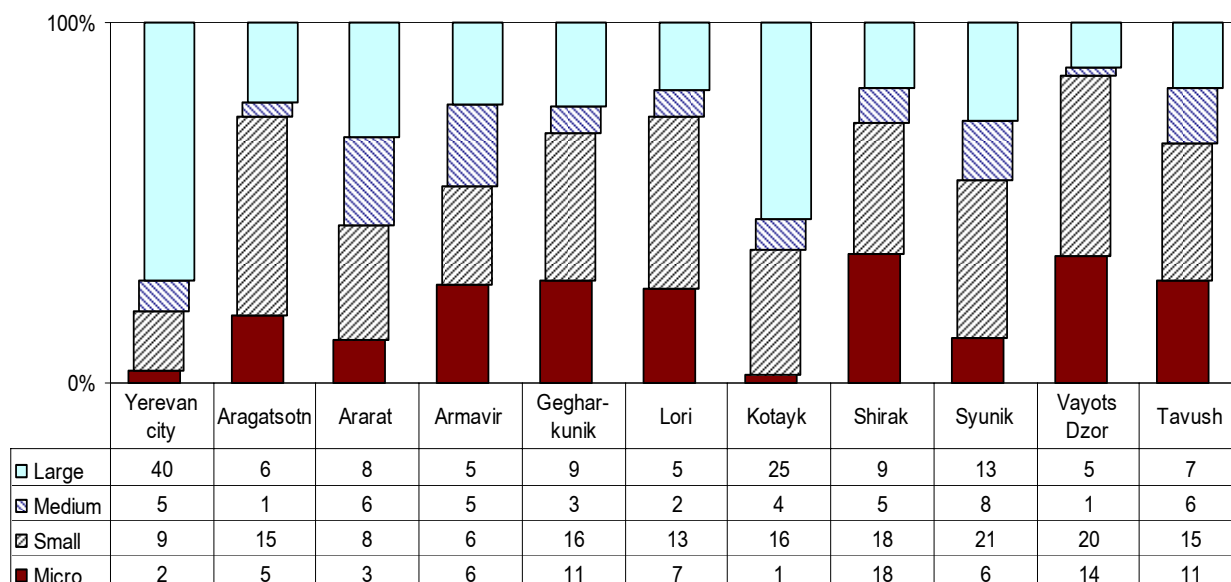


About two thirds of actually covered organizations were industrial and 16.5% - organizations rendering services. The others represent agriculture (mainly forestry), fishing, communication, etc.

**Diagram 3. Actual coverage by NACE and size of organizations**



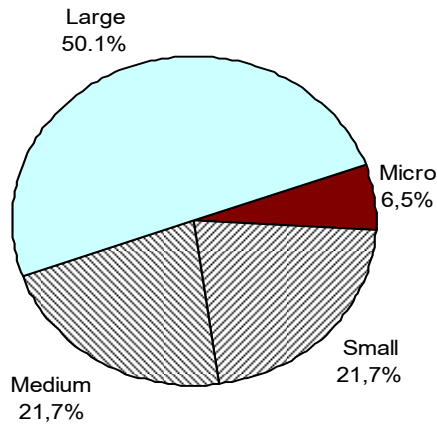
**Diagram 4. Distribution of the covered organizations by sizes and RA marzes**



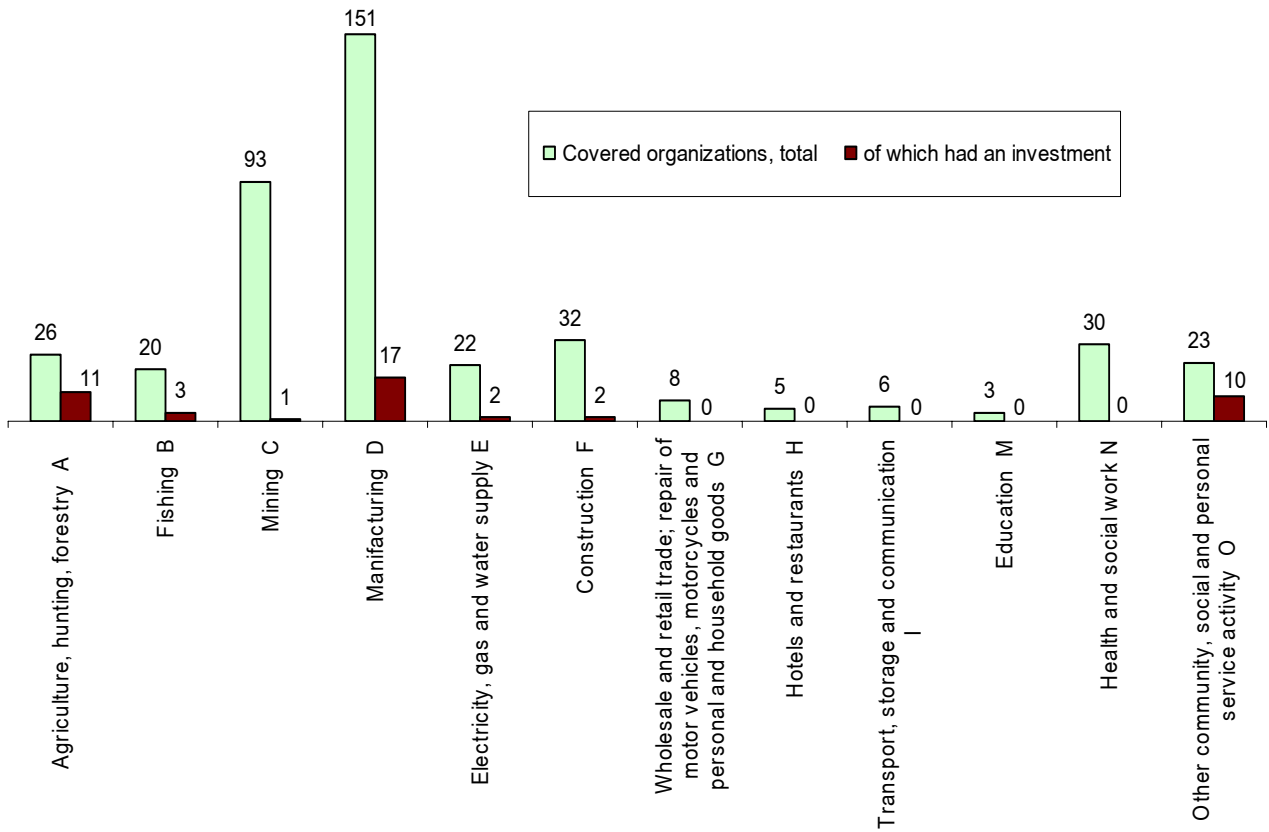
**4.2. Environmental investments.** 46 or about 11.0% out of 419 interviewed organizations made environmental investments.

In order to reveal the type of investments, the investments in the questionnaire were distinguished by the following purposes: 1. Hazardous substances catching, neutralization, pollution treatment (hereinafter – pollution treatment) and 2. Detrimental influence prevention, pollution prevention (hereinafter – pollution prevention) (see Table 2 in the questionnaire). Table 3 of the questionnaire is related to the information on natural stock economy (represented by energy economy and heat recovery).

**Diagram 5. Distribution of the organizations which made an investment by size, %**



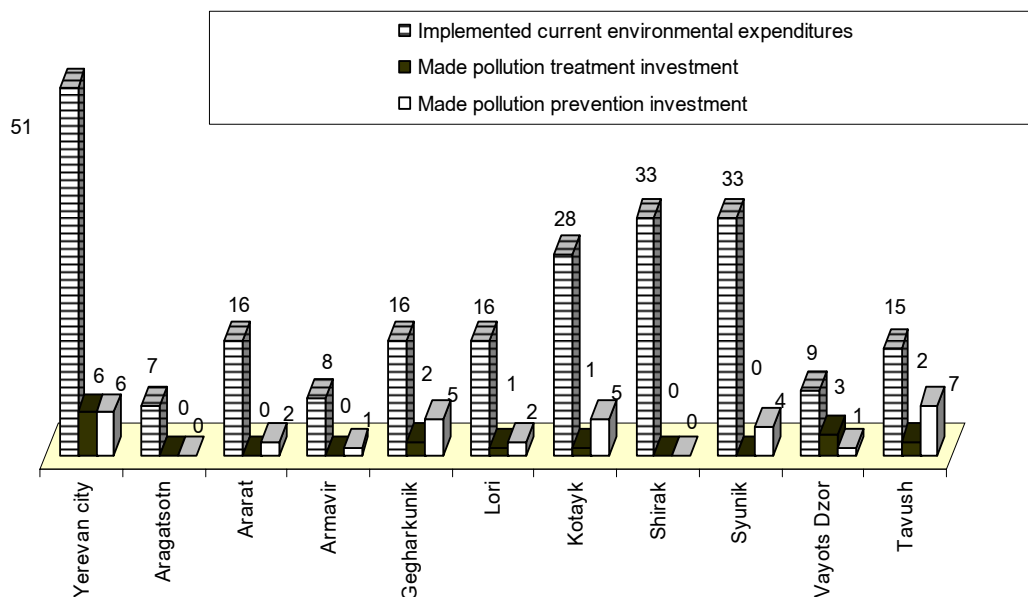
**Diagram 6. Distribution of the organizations made an investment by size (number of employees) and type of activity**



**Table 5. Distribution of organizations which made an investment by size (number of employees) and RA marzes**

	Actual coverage					Of which made investment <sup>1</sup>					In % to total coverage
	micro	small	medium	large	total	micro	small	medium	large	total	
Yerevan city	2	9	5	40	56	-	-	1	9	10	17.9
Aragatsotn	5	15	1	6	27	-	-	-	-	-	-
Ararat	3	8	6	8	25	-	-	1	1	2	8.0
Armavir	6	6	5	5	22	-	-	-	1	1	4.5
Gegharkunik	11	16	3	9	39	1	3	-	3	7	17.9
Lori	7	13	2	5	27	-	1	1	1	3	11.1
Kotayk	1	16	4	25	46	-	1	1	4	6	13.0
Shirak	18	18	5	9	50	-	-	-	-	-	-
Syunik	6	21	8	13	48	-	1	2	1	4	8.3
Vayots Dzor	14	20	1	5	40	2	2	-	-	4	10.0
Tavush	11	15	6	7	39	-	2	4	3	9	23.1
<b>Total</b>	<b>84</b>	<b>157</b>	<b>46</b>	<b>132</b>	<b>419</b>	<b>3</b>	<b>10</b>	<b>10</b>	<b>23</b>	<b>46</b>	<b>11.0</b>

**Diagram 7. Quantitative distribution of organizations implemented environmental expenditures by types of expenditures and RA marzes**



According to the summary results of the survey, 46 out of the surveyed organizations made 1812.7 mln. drams investment in 2007.

**Table 6. Environmental investments by size of organizations and RA marzes**

	Actual treatment investments <i>(ths. drams)</i>				
	micro	small	medium	large	total
Yerevan city	-	-	2637.0	747825.2	750462.2
Aragatsotn	-	-	-	-	-
Ararat	-	-	2000.0	1810.0	3810.0
Armavir	-	-	-	145319.0	145319.0
Gegharkunik	5897.0	3868.4	-	10201.0	19966.4
Lori	-	1358.0	668.0	27162.3	29188.3
Kotayk	-	350.0	60.0	17387.8	17797.8
Shirak	-	-	-	-	-

<sup>1</sup> Two organizations made both treatment and prevention investments and the others – with one purpose.

	Actual treatment investments				
	micro	small	medium	large	total
Syunik	-	2334.0	19029.0	718000.0	739363.0
Vayots Dzor	1844.2	6780.1	-	-	8624.3
Tavush	-	3800.0	43448.3	51011.0	98259.3
<b>Total</b>	<b>7741.2</b>	<b>18490.5</b>	<b>67842.3</b>	<b>1718716.3</b>	<b>1812790.3</b>

**Table 7. Environmental investments by environmental domains and investment purpose**

(ths. dram)

Environmental domains <sup>1</sup>	Hazardous substances catching, neutralization, pollution treatment	Detrimental influence prevention, pollution prevention
Protection of atmospheric air and climate	87633.2	67124.8
Water protection from pollution by wastewater /without underground water/	10145.6	621572.9
Land and underground water protection	-	4713.5
of which underground water protection from pollution	-	1308.0
Waste management	641217.0	158775.4
Protection from noise and vibration	24.2	5058.0
Protection of biodiversity and landscape	800.0	113740.7
Environmental scientific research and development	-	-
Other	-	101985.0
<b>Total</b>	<b>739820.0</b>	<b>1072970.3</b>
<b>Total investments</b>	<b>1812790.3</b>	

15 or 3.6% out of surveyed organizations made investments with the purpose of hazardous substances catching, neutralization, pollution treatment. The invested amount comprised 739.8 mln. drams. The investments per organization comprised 49.3 mln. drams. These measures include methods, operations, technologies, processes or installations, which are aimed to collect, transport, treat and neutralize the pollutants after their emission, to control and measure the level of pollution, etc. The measures for pollutant treatment include the cost of goods and services produced only with nature protection purposes. These goods and services had a significant importance for treatment of pollutants emitted into air, water, waste dumped into land. They are clearly defined in the statistical definitions and easy to calculate. It is necessary to mention, that the definitions of measures and their types are presented in instruction for the completion of the given questionnaire (see Annex 2).

33 organizations mentioned in the questionnaire the measures directed to the detrimental influence prevention, pollution prevention purpose. 1073.0 mln. drams or 32.5 mln. drams in average per organization were spent for prevention of formation of pollution in pollution sources, i.e. on introduction of task methods, technologies and equipment. It should be mentioned, that it is impossible to separate environmental component from the cost of technical equipment completely integrated in the production process, so the part of environmental investment in the whole amount of investments was calculated equal to technology most favourable for the solving of the given environmental task.

<sup>1</sup> The classification of environmental measures and domains was done by CEPA-2000 classification.

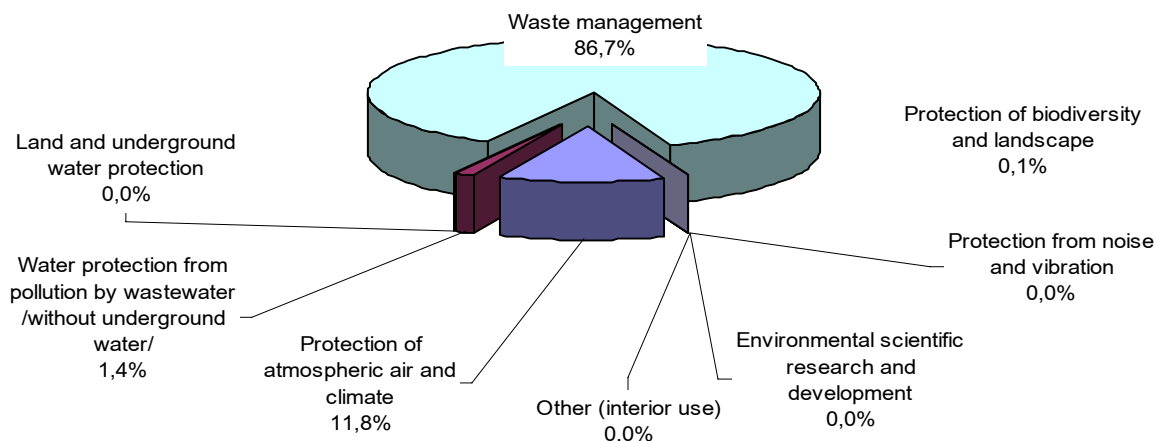
**Table 8. Environmental investments by investment purpose and RA marzes***(ths.drams)*

	Pollution treatment investments	Pollution prevention investments	Total
Yerevan city	689228.9	61233.3	750462.2
Aragatsotn	-	-	-
Ararat	-	3810.0	3810.0
Armavir	-	145319.0	145319.0
Gegharkunik	625.0	19341.4	19966.4
Lori	27162.3	2026.0	29188.3
Kotayk	6468.6	11329.2	17797.8
Shirak	-	-	-
Syunik	-	739363.0	739363.0
Vayots Dzor	2144.2	6480.1	8624.3
Tavush	14191.0	84068.3	98259.3
<b>Total</b>	<b>739820.0</b>	<b>1072970.3</b>	<b>1812790.3</b>

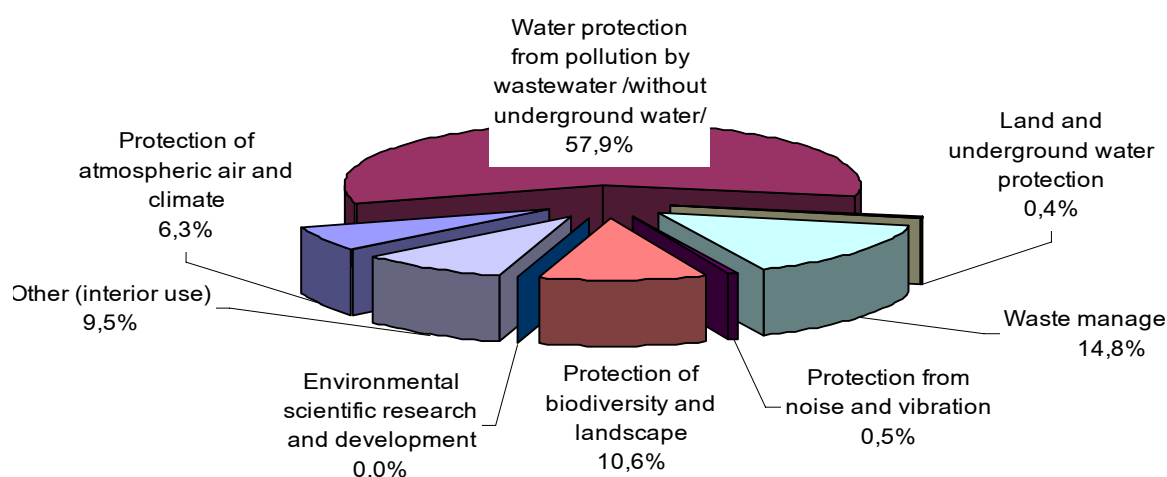
**Table 9. Environmental expenditures by types of economic activity***(ths. drams)*

Type of economic activity and code			Pollution treatment investments	Pollution prevention investments	Total investment
01-02	A	Agriculture, hunting and forestry	200.0	108668.7	108868.7
05	B	Fishing	500.0	5897.0	6397.0
Total			700.0	114565.7	115265.7
10-12	CA	Mining and quarrying of energy producing materials	-	-	-
13-14	CB	Mining and quarrying, except of energy producing materials	-	718000.0	718000.0
15-16	DA	Manufacture of food products, beverages and tobacco	436676.0	49901.3	486577.3
17-18	DB	Manufacture of textiles and textile products	-	-	-
19	DC	Manufacture of leather and leather products	-	-	-
20	DD	Manufacture of wood and wood products	300.0	-	300.0
21-22	DE	Manufacture of pulp, paper and paper products, publishing and printing	-	-	-
23	DF	Manufacture of coke, refined petroleum products and nuclear fuel	-	-	-
24	DG	Manufacture of chemicals, chemical products and man-made fibres	-	-	-
25	DH	Manufacture of rubber and plastic products	-	-	-
26	DI	Manufacture of other non-metallic mineral products	46834.2	12081.7	58915.9
27-28	DJ	Manufacture of basic metals and fabricated metal products	236956.8	11431.2	248388.0
29	DK	Manufacture of machinery and equipment	-	-	-
30-33	DL	Manufacture of electrical and optical equipment	-	115.0	115.0
34-35	DM	Manufacture of transport equipment	-	-	-
36-37	DN	Manufacturing n.e.c.	-	-	-
40-41	E	Electricity, gas and water supply	1647.0	145319.0	146966.0
Total			722414.0	936848.2	1659262.2
45	F	Construction	2815.0	247.0	3062.0
50-52	G	Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods	-	-	-
55	H	Hotels and restaurants	-	-	-
60-64	I	Transport, storage and communication	-	-	-
80	M	Education	-	-	-
85	N	Health and social work	-	-	-
90-93	O	Other community, social and personal service activity	13891.0	21309.4	35200.4
Total			13891.0	21309.4	35200.4
Total			739820.0	1072970.3	1812790.3

**Diagram 9. Distribution of pollution treatment investments by environmental domains, %**



**Diagram 10. Distribution of pollution prevention investments by environmental domains, %**

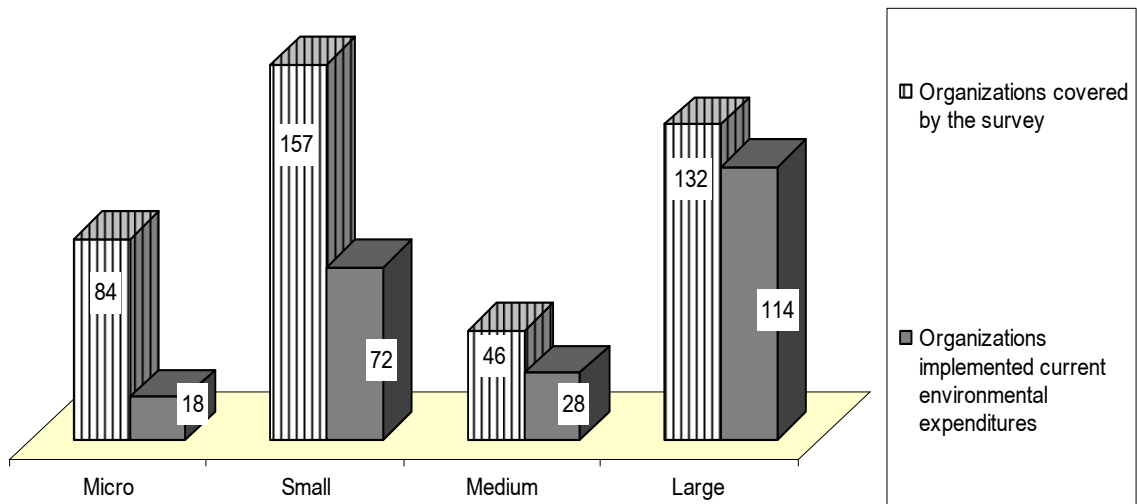


If the waste management (86.7%) was prevailing in the pollution treatment investments, then the water protection from pollution by wastewater (57.9%) was prevailing in the pollution prevention sphere characterizing environmental policy. It should be mentioned, that there were made investments for saving available energy (natural resources), but as focus survey cleared up, they were made for not the mentioned purpose, but as a results of introduction of new technology for improvement of production.

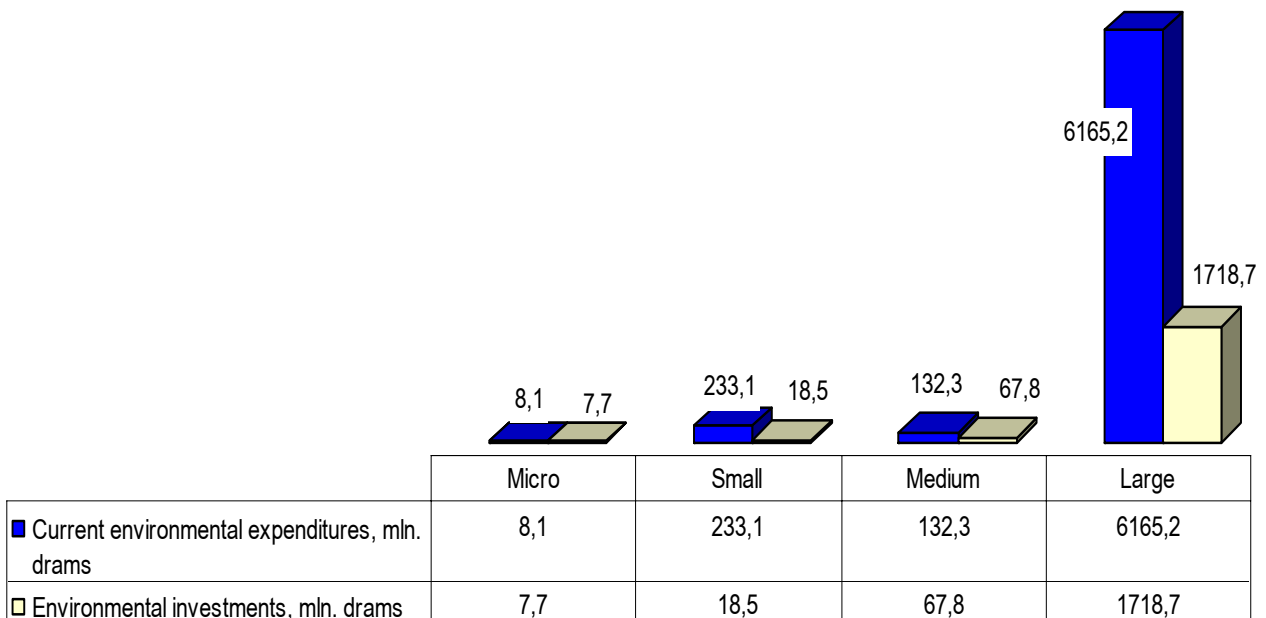
Unfortunately, there is no investment on environmental R&D in the mentioned structure of environmental investments.

**4.3. Current environmental expenditures.** According to the summary results of the survey, 232 or 55.4% of the surveyed organizations implemented 6538.7 mln. drams current environmental expenditure, 8.9% of which was paid to other organizations and 7.8% of the latter – to the private sector organizations. Current cost per unit per organization comprised 28.2 mln. drams. The current environmental expenditures of the organizations which made environmental investments comprised 2125.4 mln. drams and per organization – in average 46.2 mln. drams.

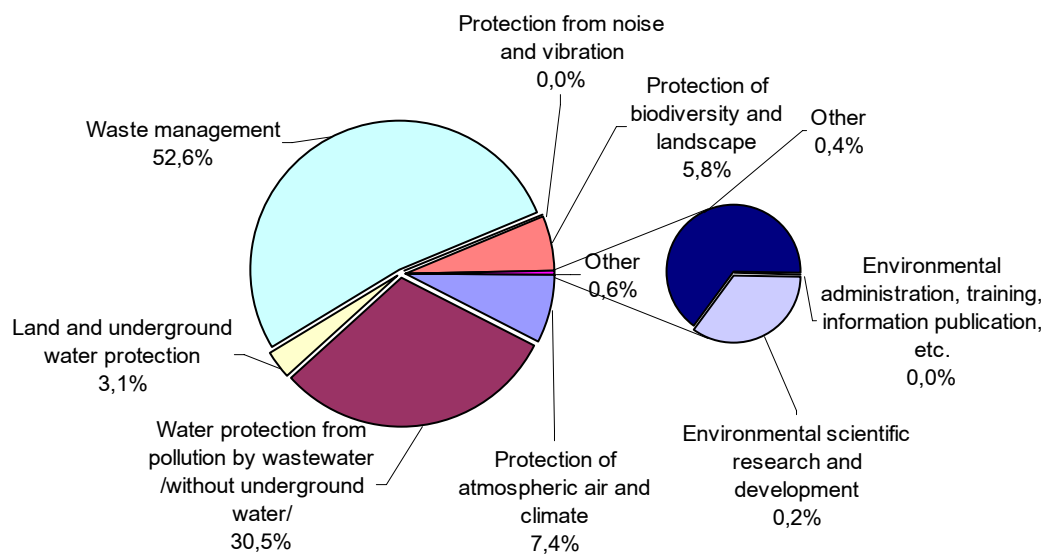
**Diagram 11. Quantitative distribution of the organizations implemented current environmental expenditures by size**



**Diagram 12. Current environmental expenditures and investments by size of organization**



**Diagram 13. Distribution of current environmental expenditures by environmental domains, %**



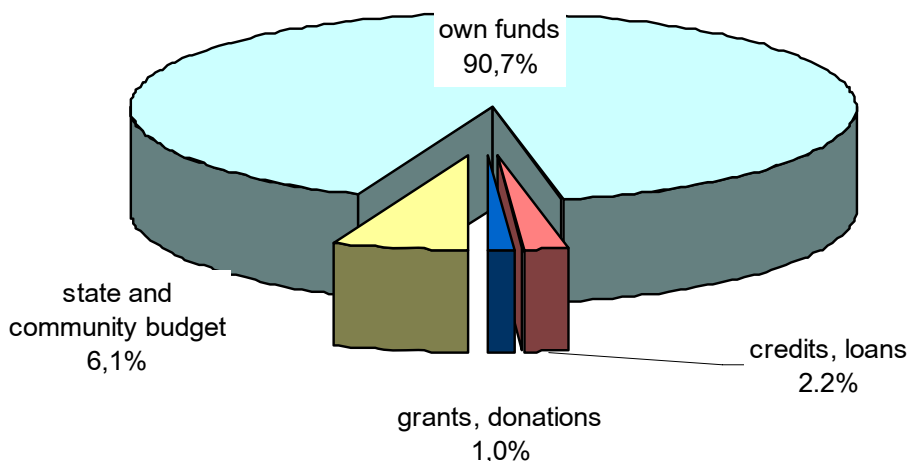
**Table 10. Current environmental expenditures of the surveyed organizations and those organizations which made an investment by environmental domains**

(ths. drams)

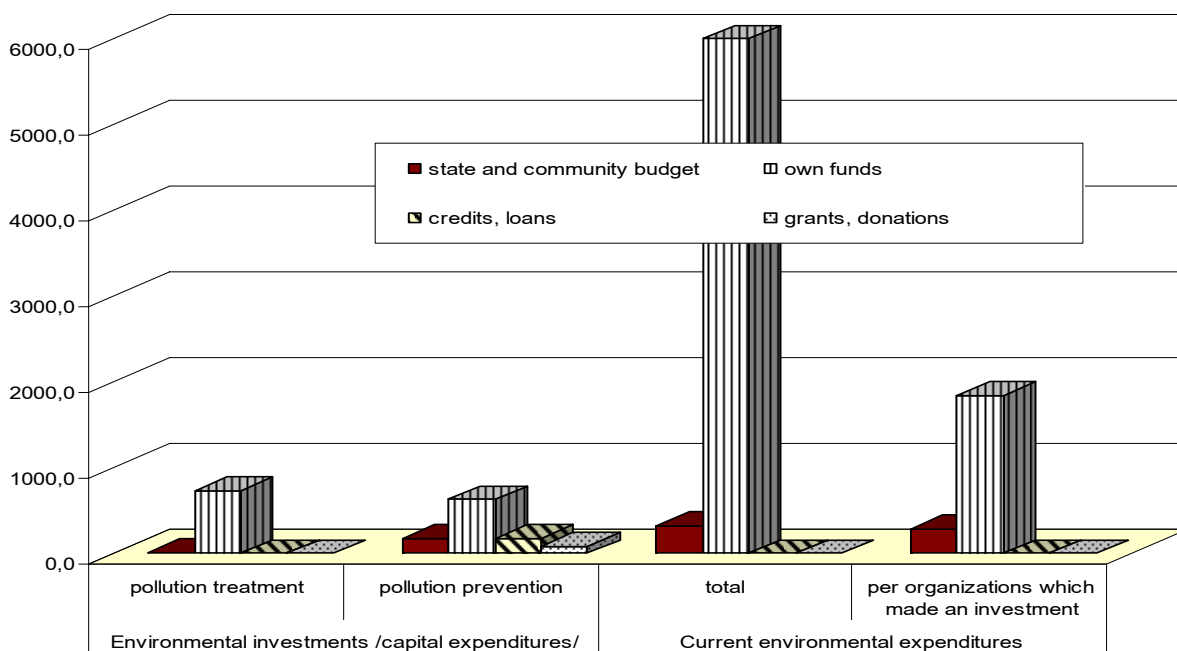
	Current expenditures, total	Including those which made an investment
Protection of atmospheric air and climate	481256.3	34059.5
Water protection from pollution by wastewater /without underground water/	1993930.0	1078173.2
Land and underground water protection	202331.2	17957.0
Waste management	3437675.1	695833.4
Protection from noise and vibration	2680.9	2680.9
Protection of biodiversity and landscape	378497.2	254939.7
Environmental administration, training, information publication, etc.	53.2	-
Environmental scientific research and development	14680.4	14302.5
Other (interior use)	27672.9	27484.9
<b>Total</b>	<b>6538777.2</b>	<b>2125431.1</b>

**4.4. Financing Sources of Environmental Expenditures.** According to the survey results, the environmental expenditures of organizations were mainly implemented by own funds. 98.1% of pollution treatment investments were made by own funds and the same indicator for pollution prevention comprised 58.7%. 95.1% of current environmental expenditures were implemented by own funds of the organizations and the same indicator for surveyed organizations which made an environmental investment comprised 86.7%. It is notable, that 26.6% of own funds of the organizations were built up by the rendering of environmental services, and credits, loans, grants and donations that comprised 3.2% of the total expenditures were only foreign growth.

**Diagram 14. Distribution of environmental expenditures of organizations by financing sources**



**Diagram 15. Quantitative distribution of environmental expenditures of organizations by types of financing sources, mln. drams**



**4.5. Production of Environmentally Significant Goods and Services.** In 2007, the surveyed organizations produced goods and services on 2014.7 mln. drams, 1280.9 mln. drams of which was implemented by the organizations that made an environmental investments. By the way, more than 99% of them was services and one thirds of these goods were used inside the organization for own needs. It should be mentioned, that production of goods and services included mainly domains of water protection and waste management.

**Table 11. Production of environmental goods and services by organizations**

(ths. drams)

Name	Total	Of which by organizations which made an investment
<b>Environmental goods and services production, total</b>	<b>2014672.4</b>	<b>1280944.9</b>
of which		
<b>goods production</b>	<b>10010.8</b>	<b>9183.0</b>
of which are used inside the organization	3710.0	2883.4
<b>service provision</b> (implemented works by organizations by outside offers)	<b>2004661.6</b>	<b>1271761.9</b>
of which		
fixed assets protection and exploitation	323036.5	179301.8
waste management	31893.0	31893.0
environmental activity management	286582.5	-
other works and activities	1363149.6	1060567.1

**4.6. Export and Import of Environmentally Significant Goods and Services.** In 2007, one of the surveyed organizations (that also made an environmental investment) exported environmental goods on 95.0 mln. drams.

**4.7. Payments for Nature Protection and Use.** In 2007, 308 (73.5%) organizations made payments for nature protection on 570.4 mln. drams and 196 (46.8%) organizations – payments for nature use on 2735.2 mln. drams. These indicators comprised 1.85 and 13.96 mln. drams correspondingly per organization filled in the survey questionnaire and 8.49 and 8.97 mln. drams – per organization which made an investment.

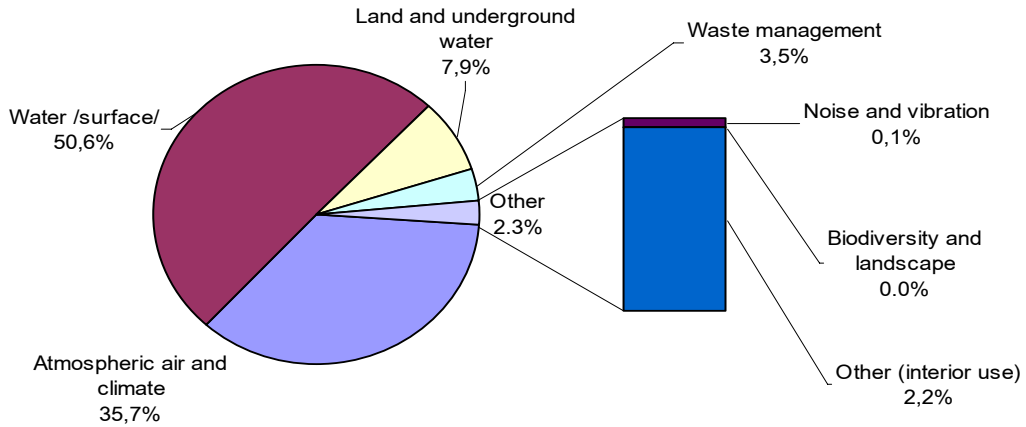
**Table 12. Payments for Nature Protection and Use by Environmental Domains and Made Investment**

(ths. drams)

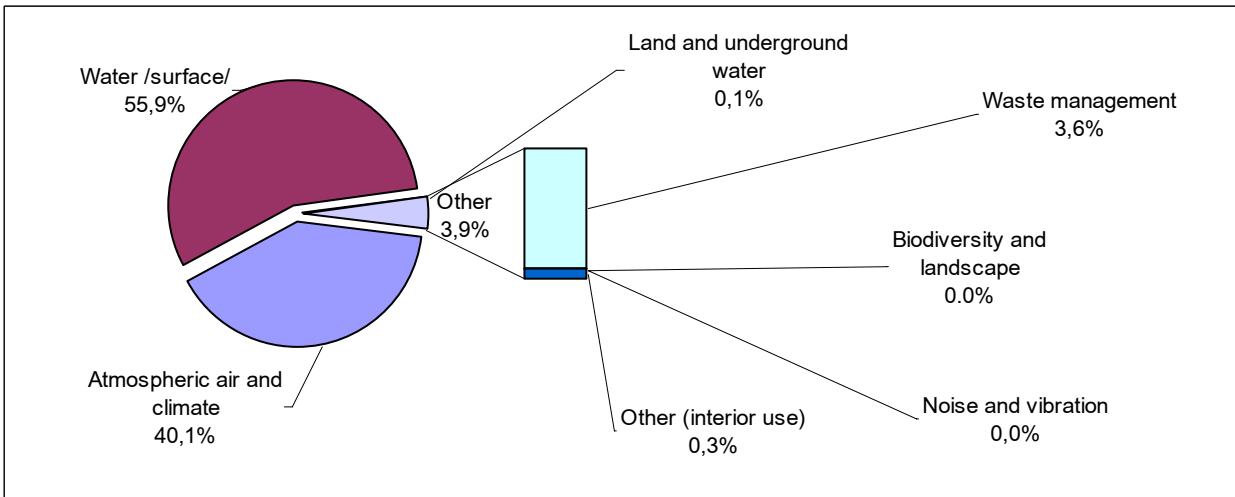
		Protection of atmospheric air and climate	Water protection from pollution by wastewater /without underground water/	Land and underground water protection	Waste management	Protection from noise and vibration	Protection of biodiversity and landscape	Other (interior use)
Payments for nature protection	total	203558.7	288324.4	45042.0	19826.4	828.7	-	12813.1
	of which by organizations which made an investment	122517.6	170921.0	139.0	11121.7	-	-	879.0
Payments for nature use	total	X	130993.1	155335.4	X	X	18261.9	2430634.0
	of which by organizations which made an investment	X	15782.8	40127.0	X	X	12154.3	174150.3

**Diagram 16. Distribution of Payments for Nature Protection by Environmental Domains, %**

**a) total**

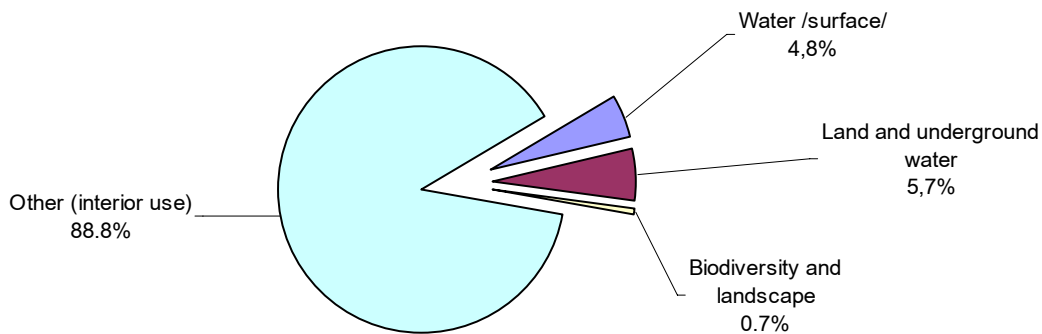


**b) for organizations which made an investment**

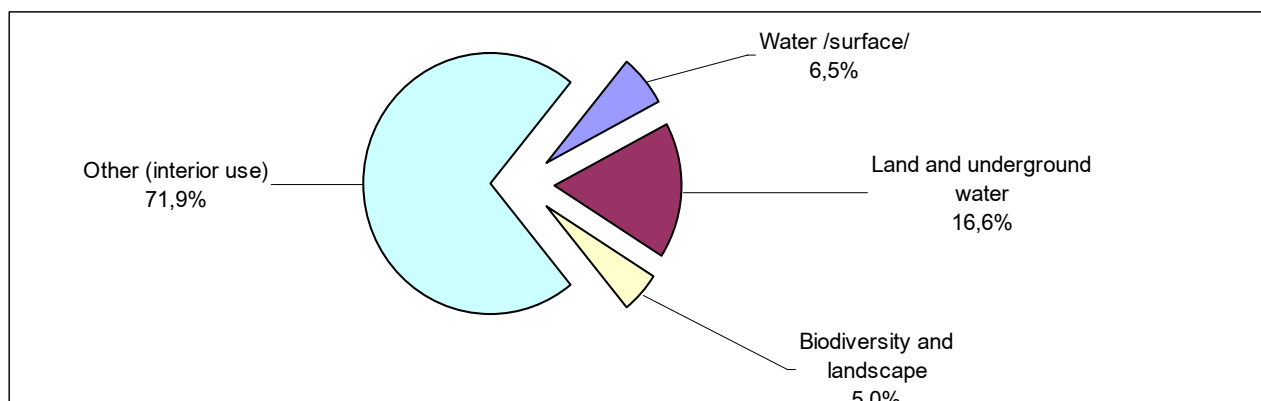


**Diagram 17. Distribution of Payments for Nature Use by Environmental Domains, %**

**a) total**



**b) for organizations which made an investment**



**4.8. Economic Structure of Environmental Expenditures**

**Table 13.**

(ths.drams)

Name of indicator	Total	of which by organizations which made an investment
Row and materials	462572.5	296110.6
Bought intermediate products, complementary constructions and details	79516.6	52218.4
Fuel	182536.5	116139.7
Energy	195814.5	28400.0
Payments of productive works, services made by other organizations	14629.2	14629.2
of which main repair of buildings and constructions	10403.4	10403.4
Payments made for other services	585746.5	153884.4
Rental payments	40600.4	35139.9
Insurance payments	2085.7	2085.7
Credit interests	-	-
Remuneration for work and other payments equal to it	1712342.8	1170236.6
Compulsory social insurance payments	285111.1	183095.4
Fixed assets depreciation	2808609.6	142745.9
Other current costs	429372.2	189318.4
Other capital expenditure	1666850.2	1666850.2

**5. Environmental Expenditures of Organizations by General Population of the Survey.**

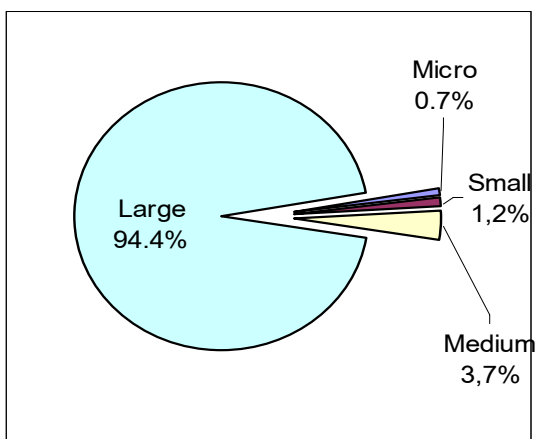
According to the sample by size of organizations, due to extrapolation of the summary results of the survey on general population, the possible environmental investments will comprise 1821.8 mln. drams and current environmental expenditures - 6589.0 mln. drams (for comparison: according to the actual results of the survey these indicators comprised 1812.8 and 6538.8 mln. drams correspondingly). Indicator on expenditure per organization of the general universe comprised 3.57 and 12.92 mln. drams correspondingly.

**Table 14. Environmental investments and current expenditures by general population**

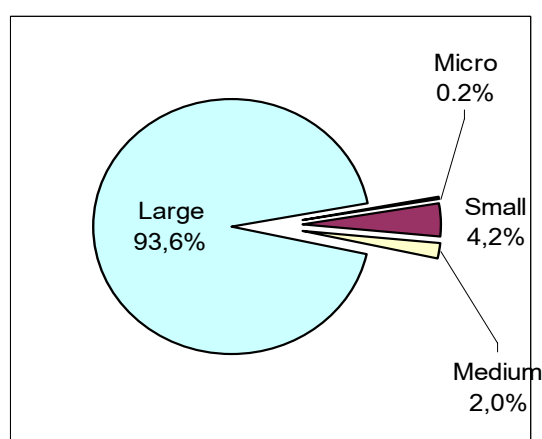
	Total	including			
		micro	small	medium	large
General population of the survey, unit	510	145	187	46	132
Number of the organizations covered by the survey, unit	419	84	157	46	132
Environmental investments, mln. drams	1821.8	13.3	22.0	67.8	1718.7
Environmental current expenditures, mln. drams	6589.0	14.0	277.5	132.3	6165.2

**Diagram 18. Distribution of environmental investments and current expenditures by size of organization, %**

a) environmental investments



b) environmental current expenditure



## 6. Conclusions

The conclusions of the survey results are:

- In 2007, 46 or about 11.0% out of 419 interviewed organizations made environmental investments. By the way 15 out of those organizations made investments with the purpose of hazardous substances catching, neutralization, pollution treatment and 33 - the detrimental influence prevention, pollution prevention purpose. The both of investments had a purpose to treat and prevent the pollution.
- Due to extrapolation of the summary results of the survey on general population, the possible environmental investments will comprise 1821.8 mln. drams and current environmental expenditures - 6589.0 mln. drams. Indicator on expenditure per organization of the general universe comprised 3.57 and 12.92 mln. drams correspondingly.
- According to the summary results of the survey, average invested amount per organization which made an investment comprised 39.4 mln. drams, 44.1% of which were made for waste management and 34.8% - for Water protection from pollution.

**Table 15. Some average indicators on the surveyed organizations and those organizations which made an investment**

(ths. drams)

	Environmental investments		Current environmental expenditures	Payments for nature protection	Payments for use of nature resources	Production of environmentally significant goods and services
	Pollution treatment	Pollution prevention				
Per surveyed organization	1765.7	2560.8	15605.6	1361.3	6528.0	4808.3
Per organization which made an investment	49321.3	32514.3	46205.0	6643.0	5265.5	27846.6

- Total amount of payments for nature protection and use made by the surveyed organizations comprised 3305.6 mln. drams and per surveyed organization - 7.9 mln. drams.
- The main motives of investments were implementation of the legal and normative requirements on nature protection, regulatory requirements of the RA State bodies, improvement of basic products production quality and increase of production volume, ensuring of environmental requirements for competition, improvement of working conditions and etc.
- About 74.8% of investments was made at the expenses of own funds of organizations, 9.9% - credits, 10.6% - budget allotments and grants and donations comprised 4.7% of total amount of investments. By the way, the state budget allotments were mainly invested in the measures on pollutants' catching and decontamination having a negative impact on the environment.
- None of the surveyed organizations had any use of payments for environmental investments' implementation (i.e. tax, credit priority).

**Table 16. Distribution of the environmental expenditures by financing sources, %**

(%)

		State and community budget	Own funds	Credits, loans	Grants and donations	Total
Environmental investments	Pollution treatment	1.9	98.1	-	-	100.0
	Pollution prevention	16.7	58.7	16.8	7.8	100.0
Current environmental expenditures	Total	4.9	95.1	-	-	100.0
	By organizations made an investment	13.3	86.7	-	-	100.0

- None of the organizations imported any environmental goods and services. Only one of them exported production on 95.0 mln. drams.
- The vast majority of the organizations do not lead separate accounting on environmental expenditures.
- There are not enough professional abilities for the separation of environmental investments from the whole amount of investments in the organizations.
- There is a need of compiling of special methodological guidelines assisting to the environmental expenditures' elements' definition, evaluation and accounting of the taken measures results.

## C. Environmental State Expenditures

(According to the information received from the Public administration bodies during the period of the survey and summary data from the RA State Budget in 2007)

**1. Environmental expenditures of the public administration bodies.** The total amount of expenditures in the sphere of environment implemented by the Public administration bodies (without marzpetarans) (from the State Budget) in 2007 comprised 20 807. 6 mln. drams<sup>1</sup>, of which 15 847. 5 mln. drams were implemented by public administration bodies<sup>2</sup> and financed from the State Budget and financing of 4 990. 0 mln. drams made by territorial administration bodies, prevailing part of which was from the State Budget.

Expenditures from the State Budget were implemented by the different directions and bodies. Thus, the expenditures in the main sections of economy were implemented by the different departments depending on purpose. It should be mentioned, that the large share of the expenditures from the State Budget comprised different grant projects and foreign credits.

State expenditures in the sphere of environment had the following directions: 1. housing and communal services, 2. agriculture, forestry and water industry, 3. industry, mining, nature protection and construction.

The expenditures in the sphere of housing and communal services were implemented within the components “Rubbish disposal, waste processing and cleaning of streets” and “Water supply and use of sewerage system” by the Ministry of Nature Protection of RA and Ministry of Territorial Administration of RA. The total amount of expenditures comprised 6 610.7 mln. drams, 46.8% of which were the capital expenditures. 1377.6 mln. drams were financed by the German Development Credit and 3 345.4 mln. drams – by the World Bank Programs in the structure of expenditures by this direction. Thus, financing of 71.4% expenditures was implemented by the foreign sources.

The expenditures by agriculture, forestry and water industry direction were implemented within the components “Work on land improvement”, “Fishing, water industry” and “Forestry”. The total amount of expenditures comprised 5 796.8 mln. drams, 64.8% of which – capital expenditures. The expenditures were implemented by the RA Ministries on Nature Protection, Agriculture and Territorial Administration. In the structure of financing sources 2 688.1 mln. drams or 46.4% were WB Program’s funds, the prevailing part - in the form of capital expenditures.

The expenditures by third direction had exceptionally environmental purposes, in particular, maintenance of the Ministry on Nature Protection of RA, specially protected areas of nature and other environmental measures. The total amount of expenditures comprised 3440.1 mln. drams, 1851.3 mln. drams or 53.8% of which were current expenditures and 1588.8 mln. drams or 46.2 % - investments. 26.4% (906.7 mln. drams) of expenditures was directed to the maintenance of Ministry on Nature Protection of RA, 37.2 mln. drams of which were investments. 2533.4 mln. drams comprised the environmental expenditure implemented by Ministry on Nature Protection of RA, 1536 mln. drams of which were capital expenditures.

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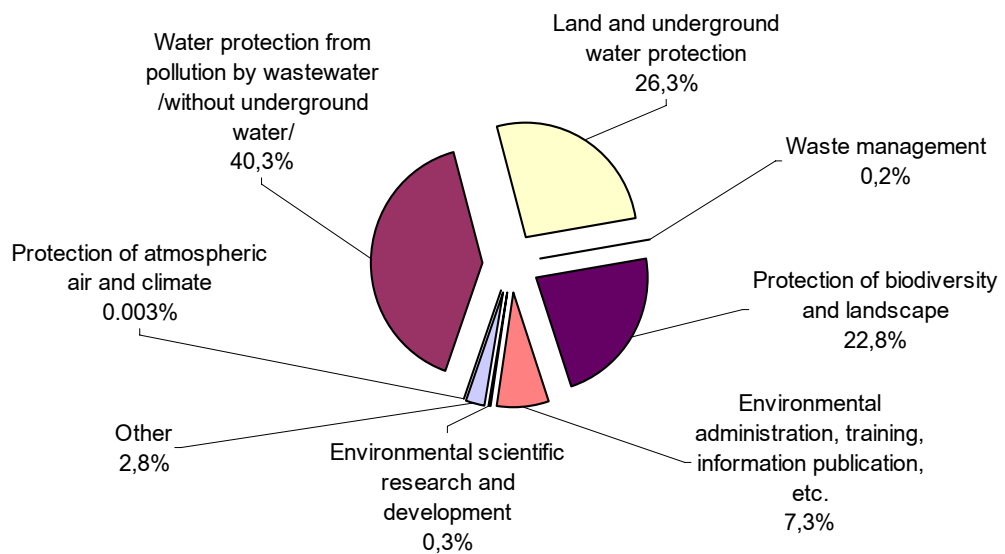
<sup>1</sup> All expenditures implemented by the public sector are not considered only environmental by their content, as there are not any separate accounting by specific purpose and the methodology of calculation of the indicator as estimates. Stipulated by the above-mentioned, the spent amount was considered as an environmental at this work stage.

<sup>2</sup> In the table 17, the difference between the expenditures and total amount is stipulated by the fact that some expenditures are not corresponding with any direction.

**2. Environmental expenditures of the territorial administration bodies /see footnote 2 on the page 5/.** Besides the expenditures implemented directly by the public administration bodies, the total amount of expenditures implemented in the sphere of environment by the territorial administration bodies (marzpetarans (municipality of region) and self-administration bodies) financed from the RA State and Community Budget in 2007 comprised 4 990.0 mln. drams, of which 774.6 mln. drams were current expenditures and 4 215.4 mln. drams – investments made in this sphere. In the structure of the total implemented expenditure 61.7% comprised financial means from the State budget, 15.8% - own funds, 21.8% - off-budget expenditures and the rest – credits and loans.

43% (2145.8 mln. drams) out of the expenditures implemented in the sphere of environment was directed to underground water protection from pollution, 39.8% (1987.4 mln. drams) - protection of biodiversity and landscape, 11.6% (577.4 mln. drams) - water protection from pollution, 5.1% - environmental administration, training, information publication. The share of expenditures implemented for other purposes in total comprised less than 1%. Investment expenditures were also prevailing in the structure of the total expenditures.

**Diagram 19. The distribution of environmental expenditures of the public sector by environmental domains, %**



**Table 17. Environmental expenditures of the public administration bodies**

*(ths. drams)*

	Total	including									
		Protection of atmospheric air and climate	Water protection from pollution by wastewater /without underground water/	Land and underground water protection	of which underground water protection from pollution	Waste management	Protection from noise and vibration	Protection of biodiversity and landscape	Environmental administration, trainings, information publication, etc.	Environmental scientific research and development	Other
Investments	<b>6928473.4</b>	-	3727946.6	2174361.3	-	-	-	988969.5	37196.0	-	-
Current expenditures	<b>7779800.0</b>	-	3635807.9	855872.4	-	20856.1	-	1520865.0	1146815.7	65617.0	533965.9
<b>Total</b>	<b>14708273.4</b>	-	<b>7363754.5</b>	<b>3030233.7</b>	-	<b>20856.1</b>	-	<b>2509834.5</b>	<b>1184011.7</b>	<b>65617.0</b>	<b>533965.9</b>

**Table 18. Environmental expenditures of the territorial administration bodies**

(ths. drams)

		Total	including									
			Protection of atmospheric air and climate	Water protection from pollution by wastewater /without underground water/	Land and underground water protection	of which underground water protection from pollution	Waste management	Protection from noise and vibration	Protection of biodiversity and landscape	Environmental administration, training, information publication, etc.	Environmental scientific research and development	Other
Investments	<b>TOTAL</b>	<b>4 215 417.7</b>	<b>31.2</b>	<b>80 000.0</b>	<b>2 145 776.0</b>	<b>2 145 776.0</b>	<b>450.3</b>	-	<b>1 987 350.2</b>	-	-	<b>1 810.0</b>
	including from State Budget	3 064 817.2	31.2	-	2 145 776.0	2 145 776.0	-	-	917 200.0	-	-	1 810.0
	of which subsidies	1 810.0	-	-	-	-	-	-	-	-	-	1 810.0
	own funds	289 511.3	-	8 000.0	-	-	450.3	-	281 061.0	-	-	-
	credits, loans	-	-	-	-	-	-	-	-	-	-	-
	off-budget means	861 089.2	-	72 000.0	-	-	-	-	789 089.2	-	-	-
Total expenditures	<b>TOTAL</b>	<b>774 638.9</b>	<b>640.0</b>	<b>497 357.0</b>	-	-	<b>8 290.3</b>	-	-	<b>255 995.2</b>	<b>1 870.0</b>	<b>10 486.4</b>
	including from State Budget	14 171.7	640.0	-	-	-	8 290.3	-	-	1 610.0	1 870.0	1 761.4
	of which subsidies	13 690.3	640.0	-	-	-	8 290.3	-	-	1 610.0	1 870.0	1 280.0
	own funds	497 320.5	-	497 320.5	-	-	-	-	-	-	-	-
	credits, loans	38 306.9	-	36.5	-	-	-	-	-	38 270.4	-	-
	off-budget means	224 839.8	-	-	-	-	-	-	-	216 114.8	-	8 725.0
<b>TOTAL</b>		<b>4 990 056.6</b>	<b>671.2</b>	<b>577 357.0</b>	<b>2 145 776.0</b>	<b>2 145 776.0</b>	<b>8 740.6</b>	-	<b>1 987 350.2</b>	<b>255 995.2</b>	<b>1 870.0</b>	<b>12 296.4</b>

## Annexes

### Pollution Treatment and Prevention Investments by RA Marzes and Organizations' Size

**a) organizations which made a pollution treatment investment and volume of investments**

	Organizations which made a pollution treatment investment, unit					Pollution treatment investment, ths. drams				
	micro	small	medium	large	total	micro	small	medium	large	total
Yerevan city	-	-	1	5	6	-	-	2390.0	686838.9	689228.9
Aragatsotn	-	-	-	-	-	-	-	-	-	-
Ararat	-	-	-	-	-	-	-	-	-	-
Armavir	-	-	-	-	-	-	-	-	-	-
Gegharkunik	-	1	-	1	2	-	200.0	-	425.0	625.0
Lori	-	-	-	1	1	-	-	-	27162.3	27162.3
Kotayk	-	-	-	1	1	-	-	-	6468.6	6468.6
Shirak	-	-	-	-	-	-	-	-	-	-
Syunik	-	-	-	-	-	-	-	-	-	-
Vayots Dzor	2	1	-	-	3	1844.2	300.0	-	-	2144.2
Tavush	-	1	-	1	2	-	300.0	-	13891.0	14191.0
<b>Total</b>	<b>2</b>	<b>3</b>	<b>1</b>	<b>9</b>	<b>15</b>	<b>1844.2</b>	<b>800.0</b>	<b>2390.0</b>	<b>734785.8</b>	<b>739820.0</b>

**b) organizations which made a pollution prevention investment and volume of investments**

	Organizations which made a pollution prevention investment, unit					Pollution prevention investment, ths. drams				
	micro	small	medium	large	total	micro	small	medium	large	total
Yerevan city	-	-	1	5	6	-	-	247.0	60986.3	61233.3
Aragatsotn	-	-	-	-	-	-	-	-	-	-
Ararat	-	-	1	1	2	-	-	2000.0	1810.0	3810.0
Armavir	-	-	-	1	1	-	-	-	145319.0	145319.0
Gegharkunik	1	2	-	2	5	5897.0	3668.4	-	9776.0	19341.4
Lori	-	1	1	-	2	-	1358.0	668.0	-	2026.0
Kotayk	-	1	1	3	5	-	350.0	60.0	10919.2	11329.2
Shirak	-	-	-	-	-	-	-	-	-	-
Syunik	-	1	2	1	4	-	2334.0	19029.0	718000.0	739363.0
Vayots Dzor	-	1	-	-	1	-	6480.1	-	-	6480.1
Tavush	-	1	4	2	7	-	3500.0	43448.3	37120.0	84068.3
<b>Total</b>	<b>1</b>	<b>7</b>	<b>10</b>	<b>15</b>	<b>33</b>	<b>5897.0</b>	<b>17690.5</b>	<b>65452.3</b>	<b>983930.5</b>	<b>1072970.3</b>

## Pollution Treatment Investments by Organizations' Size and Types of Activity

(ths. drams)

Type of economic activity and code			Micro	Small	Medium	Large	Total
01-02	A	Agriculture, hunting and forestry	-	200.0	-	-	200.0
05	B	Fishing	200.0	300.0	-	-	500.0
		<b>Total</b>	<b>200.0</b>	<b>500.0</b>	<b>-</b>	<b>-</b>	<b>700.0</b>
10-12	CA	Mining and quarrying of energy producing materials	-	-	-	-	-
13-14	CB	Mining and quarrying, except of energy producing materials	-	-	-	-	-
15-16	DA	Manufacture of food products, beverages and tobacco	-	-	-	436676.0	436676.0
17-18	DB	Manufacture of textiles and textile products	-	-	-	-	-
19	DC	Manufacture of leather and leather products	-	-	-	-	-
20	DD	Manufacture of wood and wood products	-	300.0	-	-	300.0
21-22	DE	Manufacture of pulp, paper and paper products, publishing and printing	-	-	-	-	-
23	DF	Manufacture of coke, refined petroleum products and nuclear fuel	-	-	-	-	-
24	DG	Manufacture of chemicals, chemical products and man-made fibres	-	-	-	-	-
25	DH	Manufacture of rubber and plastic products	-	-	-	-	-
26	DI	Manufacture of other non-metallic mineral products	1644.2	-	-	45190.0	46834.2
27-28	DJ	Manufacture of basic metals and fabricated metal products	-	-	-	236956.8	236956.8
29	DK	Manufacture of machinery and equipment	-	-	-	-	-
30-33	DL	Manufacture of electrical and optical equipment	-	-	-	-	-
34-35	DM	Manufacture of transport equipment	-	-	-	-	-
36-37	DN	Manufacturing n.e.c.	-	-	-	-	-
40-41	E	Electricity, gas and water supply	-	-	-	1647.0	1647.0
		<b>Total</b>	<b>1644.2</b>	<b>300.0</b>	<b>-</b>	<b>720469.8</b>	<b>722414.0</b>
45	F	<b>Construction</b>	<b>-</b>	<b>-</b>	<b>2390.0</b>	<b>425.0</b>	<b>2815.0</b>
50-52	G	Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods	-	-	-	-	-
55	H	Hotels and restaurants	-	-	-	-	-
60-64	I	Transport, storage and communication	-	-	-	-	-
80	M	Education	-	-	-	-	-
85	N	Health and social work	-	-	-	-	-
90-93	O	Other community, social and personal service activity	-	-	-	13891.0	13891.0
		<b>Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>13891.0</b>	<b>13891.0</b>
<b>Total</b>			<b>1844.2</b>	<b>800.0</b>	<b>2390.0</b>	<b>734785.8</b>	<b>739820.0</b>

## Pollution Prevention Investments by Organizations' Size and Type of Activity

*(ths. drams)*

Type of economic activity and code			Micro	Small	Medium	Large	Total
01-02	A	Agriculture, hunting and forestry	-	11908.1	52265.6	44495.0	108668.7
05	B	Fishing	5897.0	-	-	-	5897.0
		<b>Total</b>	<b>5897.0</b>	<b>11908.1</b>	<b>52265.6</b>	<b>44495.0</b>	<b>114565.7</b>
10-12	CA	Mining and quarrying of energy producing materials	-	-	-	-	-
13-14	CB	Mining and quarrying, except of energy producing materials	-	-	-	718000.0	718000.0
15-16	DA	Manufacture of food products, beverages and tobacco	-	350.0	-	49551.3	49901.3
17-18	DB	Manufacture of textiles and textile products	-	-	-	-	-
19	DC	Manufacture of leather and leather products	-	-	-	-	-
20	DD	Manufacture of wood and wood products	-	-	-	-	-
21-22	DE	Manufacture of pulp, paper and paper products, publishing and printing	-	-	-	-	-
23	DF	Manufacture of coke, refined petroleum products and nuclear fuel	-	-	-	-	-
24	DG	Manufacture of chemicals, chemical products and man-made fibres	-	-	-	-	-
25	DH	Manufacture of rubber and plastic products	-	-	-	-	-
26	DI	Manufacture of other non-metallic mineral products	-	-	10271.7	1810.0	12081.7
27-28	DJ	Manufacture of basic metals and fabricated metal products	-	-	-	11431.2	11431.2
29	DK	Manufacture of machinery and equipment	-	-	-	-	-
30-33	DL	Manufacture of electrical and optical equipment	-	-	-	115.0	115.0
34-35	DM	Manufacture of transport equipment	-	-	-	-	-
36-37	DN	Manufacturing n.e.c.	-	-	-	-	-
40-41	E	Electricity, gas and water supply	-	-	-	145319.0	145319.0
		<b>Total</b>	<b>-</b>	<b>350.0</b>	<b>10271.7</b>	<b>926226.5</b>	<b>936848.2</b>
45	F	<b>Construction</b>	<b>-</b>	<b>-</b>	<b>247.0</b>	<b>-</b>	<b>247.0</b>
50-52	G	Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods	-	-	-	-	-
55	H	Hotels and restaurants	-	-	-	-	-
60-64	I	Transport, storage and communication	-	-	-	-	-
80	M	Education	-	-	-	-	-
85	N	Health and social work	-	-	-	-	-
90-93	O	Other community, social and personal service activity	-	5432.4	2668.0	13209.0	21309.4
		<b>Total</b>	<b>-</b>	<b>5432.4</b>	<b>2668.0</b>	<b>13209.0</b>	<b>21309.4</b>
<b>Total</b>			<b>5897.0</b>	<b>17690.5</b>	<b>65452.3</b>	<b>983930.5</b>	<b>1072970.3</b>

## Environmental Investments by Organizations' Size and Type of Activity

*(ths. drams)*

Type of economic activity and code			Micro	Small	Medium	Large	Total
01-02	A	Agriculture, hunting and forestry	-	12108.1	52265.6	44495.0	108868.7
05	B	Fishing	6097.0	300.0	-	-	6397.0
		<b>Total</b>	<b>6097.0</b>	<b>12408.1</b>	<b>52265.6</b>	<b>44495.0</b>	<b>115265.7</b>
10-12	CA	Mining and quarrying of energy producing materials	-	-	-	-	-
13-14	CB	Mining and quarrying, except of energy producing materials	-	-	-	718000.0	718000.0
15-16	DA	Manufacture of food products, beverages and tobacco	-	350.0	-	486227.3	486577.3
17-18	DB	Manufacture of textiles and textile products	-	-	-	-	-
19	DC	Manufacture of leather and leather products	-	-	-	-	-
20	DD	Manufacture of wood and wood products	-	300.0	-	-	300.0
21-22	DE	Manufacture of pulp, paper and paper products, publishing and printing	-	-	-	-	-
23	DF	Manufacture of coke, refined petroleum products and nuclear fuel	-	-	-	-	-
24	DG	Manufacture of chemicals, chemical products and man-made fibres	-	-	-	-	-
25	DH	Manufacture of rubber and plastic products	-	-	-	-	-
26	DI	Manufacture of other non-metallic mineral products	1644.2	-	10271.7	47000.0	58915.9
27-28	DJ	Manufacture of basic metals and fabricated metal products	-	-	-	248388.0	248388.0
29	DK	Manufacture of machinery and equipment	-	-	-	-	-
30-33	DL	Manufacture of electrical and optical equipment	-	-	-	115.0	115.0
34-35	DM	Manufacture of transport equipment	-	-	-	-	-
36-37	DN	Manufacturing n.e.c.	-	-	-	-	-
40-41	E	Electricity, gas and water supply	-	-	-	146966.0	146966.0
		<b>Total</b>	<b>1644.2</b>	<b>650.0</b>	<b>10271.7</b>	<b>1646696.3</b>	<b>1659262.2</b>
45	F	<b>Construction</b>	<b>-</b>	<b>-</b>	<b>2637.0</b>	<b>425.0</b>	<b>3062.0</b>
50-52	G	Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods	-	-	-	-	-
55	H	Hotels and restaurants	-	-	-	-	-
60-64	I	Transport, storage and communication	-	-	-	-	-
80	M	Education	-	-	-	-	-
85	N	Health and social work	-	-	-	-	-
90-93	O	Other community, social and personal service activity	-	5432.4	2668.0	27100.0	35200.4
		<b>Total</b>	<b>-</b>	<b>5432.4</b>	<b>2668.0</b>	<b>27100.0</b>	<b>35200.4</b>
<b>Total</b>			<b>7741.2</b>	<b>18490.5</b>	<b>67842.3</b>	<b>1718716.3</b>	<b>1812790.3</b>

## Current Environmental Expenditures by Organizations' Size (by Number of Employees) and Type of Activity

(ths.drums)

Type of economic activity and code			Micro	Small	Medium	Large	Total
01-02	A	Agriculture, hunting and forestry	-	147896.7	138.4	79697.1	227732.2
05	B	Fishing	5991.5	65.0	-	-	6056.5
		<b>Total</b>	<b>5991.5</b>	<b>147961.7</b>	<b>138.4</b>	<b>79697.1</b>	<b>233788.7</b>
10-12	CA	Mining and quarrying of energy producing materials	-	138.0	-	-	138.0
13-14	CB	Mining and quarrying, except of energy producing materials	1917.4	4531.9	2799.1	2841256.1	2850504.5
15-16	DA	Manufacture of food products, beverages and tobacco	100.0	4430.7	2698.5	53324.7	60553.9
17-18	DB	Manufacture of textiles and textile products	-	18.0	-	-	18.0
19	DC	Manufacture of leather and leather products	-	-	-	-	-
20	DD	Manufacture of wood and wood products	-	51.7	-	-	51.7
21-22	DE	Manufacture of pulp, paper and paper products, publishing and printing	-	2.0	-	-	2.0
23	DF	Manufacture of coke, refined petroleum products and nuclear fuel	-	-	-	-	-
24	DG	Manufacture of chemicals, chemical products and man-made fibres	-	63.6	160.0	393340.3	393563.9
25	DH	Manufacture of rubber and plastic products	-	-	-	-	-
26	DI	Manufacture of other non-metallic mineral products	100.0	1955.5	3307.9	208908.9	214272.3
27-28	DJ	Manufacture of basic metals and fabricated metal products	-	48.0	281.4	65566.9	65896.3
29	DK	Manufacture of machinery and equipment	-	-	-	1255.4	1255.4
30-33	DL	Manufacture of electrical and optical equipment	-	-	110.0	778.5	888.5
34-35	DM	Manufacture of transport equipment	-	-	-	-	-
36-37	DN	Manufacturing n.e.c.	-	-	-	527.0	527.0
40-41	E	Electricity, gas and water supply	-	21826.0	-	2019713.8	2041539.8
		<b>Total</b>	<b>2117.4</b>	<b>33065.4</b>	<b>9356.9</b>	<b>5584671.6</b>	<b>5629211.3</b>
45	F	<b>Construction</b>	<b>-</b>	<b>761.6</b>	<b>1427.1</b>	<b>4591.3</b>	<b>6780.0</b>
50-52	G	Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods	-	-	-	3430.2	3430.2
55	H	Hotels and restaurants	-	10.3	573.4	1638.0	2221.7
60-64	I	Transport, storage and communication	-	-	-	109266.3	109266.3
80	M	Education	-	-	-	15946.2	15946.2
85	N	Health and social work	-	40.0	-	53155.9	53195.9
90-93	O	Other community, social and personal service activity	-	51289.4	120829.3	312818.2	484936.9
		<b>Total</b>	<b>-</b>	<b>51339.7</b>	<b>121402.7</b>	<b>496254.8</b>	<b>668997.2</b>
<b>Total</b>			<b>8108.9</b>	<b>233128.4</b>	<b>132325.1</b>	<b>6165214.8</b>	<b>6538777.2</b>

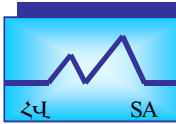
## Distribution of Organizations which Made an Investment by Sizes (by Number of Employees) and Type of Activity

*(unit)*

Type of economic activity and code	Micro		Small		Medium		Large		Covered organizations	of which by organizations made an investment
	Covered organizations	of which by organizations made an investment	Covered organizations	of which by organizations made an investment	Covered organizations	of which by organizations made an investment	Covered organizations	of which by organizations made an investment		
Agriculture, hunting and forestry A	4	-	10	4	6	5	6	2	26	11
Fishing B	15	2	5	1	-	-	-	-	20	3
Mining and quarrying C	33	-	50	-	5	-	5	1	93	1
Manufacturing D	27	1	68	2	14	2	42	12	151	17
Electricity, gas and water supply E	-	-	7	-	5	-	10	2	22	2
Construction F	2	-	6	-	4	1	20	1	32	2
Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods G	3	-	-	-	1	-	4	-	8	-
Hotels and restaurants H	-	-	1	-	2	-	2	-	5	-
Transport, storage and communication I	-	-	-	-	-	-	6	-	6	-
Education M	-	-	-	-	-	-	3	-	3	-
Health and social work M	-	-	2	-	-	-	28	-	30	-
Other community, social and personal service activity O	-	-	8	3	9	2	6	5	23	10
<b>Total</b>	<b>84</b>	<b>3</b>	<b>157</b>	<b>10</b>	<b>46</b>	<b>10</b>	<b>132</b>	<b>23</b>	<b>419</b>	<b>46</b>

### Actual Coverage of Organizations by NACE Classification and Size

Type of Activity by NACE		Micro	Small	Medium	Large	Total
Agriculture, hunting, forestry and fishing A, B	Number of employees per organization	up to 5	6-50	51-100	101 and more	
	Number of organizations	19	15	6	6	46
Industry D, E	Number of employees per organization	up to 5	6-50	51-100	101 and more	
	Number of organizations	60	125	24	57	266
Construction F	Number of employees per organization	up to 5	6-25	26-50	51 and more	
	Number of organizations	2	6	4	20	32
Transport, storage and communication I	Number of employees per organization	up to 5	6-15	16-30	31 and more	
	Number of organizations	0	0	0	6	6
Trade, services and other G, H, M, N, O	Number of employees per organization	up to 5	6-15	16-30	31 and more	
	Number of organizations	3	11	12	43	69
<b>Total</b>	<b>Number of organizations</b>	<b>84</b>	<b>157</b>	<b>46</b>	<b>132</b>	<b>419</b>



NATIONAL STATISTICAL SERVICE OF REPUBLIC ARMENIA

STATISTICAL STATE OBSERVATION

Submitted according to the RA law “On state statistics” confirmed by established order of “State statistical work program” and “Order of maintenance administrative (informational) registers and receiving information from them “ and “Order of presenting statistical data”

*Protection of provided information confidence is guaranteed by law*

Presents \_\_\_\_\_  
(name)

Actual type of activity  
 basic \_\_\_\_\_ / \_\_\_\_/\_\_\_\_/\_\_\_\_/\_\_\_\_/  
 secondary \_\_\_\_\_ / \_\_\_\_/\_\_\_\_/\_\_\_\_/\_\_\_\_/

Location *Marz* \_\_\_\_\_ I I I *Community* \_\_\_\_\_ I I I I I

Registration number in state register I I I I I I I I I I I I I

Identification code I I I I I I I I I I

Accounting number of person paying tax I I I I I I I I I I

E-mail address \_\_\_\_\_@\_\_\_\_\_

**Form No 1-environmentalcosts**

Confirmed  
 by the resolution of the State Council  
 on Statistics of RA  
 No 14-A dated 04.05.2008

**Present**

Trade and non trade organizations

SINGLE SURVEY QUESTIONNAIRE

ABOUT ENVIRONMENTAL EXPENDITURES MADE BY ORGANIZATIONS

(by the results of 2007)

**/Data are without VAT/**

The aim of the inquiry is the investigation of environmental costs made by organizations in RA, environmental investments and current costs, as well as produced nature products and services, which will be used in the field of statistics for accounting summary indexes of environmental costs and creation and investment work of environmental accounts system.  
*Your answers will be used only for generalized statistical marks.*

Number of questionnaire

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**The average payroll number of employees ..... people**

**1. Environmental investments**

When it will be difficult to indicate actual sum of environmental investments, mark the sum by your approximate calculation /estimation

Number of row	Environmental domains	Aim of investment- hazardous substances catching, neutralization, pollution treatment		Aim of investment - detrimental influence prevention, pollution prevention	
		name of activity	Invested sum ths. drams	name of activity	Invested sum ths. drams
A	B	1	2	3	4
1.1	Protection of atmospheric air and climate				
1.2	Water protection from pollution by wastewater /without underground water/				
1.3	Land and underground water protection				
1.3.1	of which underground water protection from pollution				
1.4	Waste management				
1.5	Protection from noise and vibration				
1.6	Protection of biodiversity and landscape				
1.7	Environmental scientific research and development				
1.8	Other				

Additional interpretations about investments.....

## 2. Investments directed to the natural stock economy

Number of row	Aim of investment - energy economy <sup>1</sup>		Aim of investment - heat recovery <sup>2</sup>	
		invested sum ths. drams		invested sum ths. drams
A	1	2	3	4
2.1				
2.2				
2.3				
2.4				

<sup>1</sup> Investment in such equipments, with which is possible to get additional energy by pollutants processing (compressors for lower consumption of energy, equipments providing reprocessed air circulation and other).

<sup>2</sup> Investment in such equipments, with which is possible recover heat by pollution prevention (heat exchanger, ovens of remainder gasses burning and other).

## 3.Environmental current costs

Number of row	Name	Total	of which by environmental domains									
			protection of atmospheric air and climate	water /surface/ protection from pollution by wastewater	land and under-ground water protection	of which underground water protection from pollution	waste management	protection from noise and vibration	protection of biodiversity and landscape	environ-mental management, education, information collection and other	environmental scientific-technical researches and developments	other
A	B	1	2	3	4	5	6	7	8	9	10	11
3	Current costs, total											
3.1	of which paid to other organizations											
3.1.1	of which to private sector											

#### 4. Financing of environmental costs by sources

Number of row	Name		Total, ths. drams	of which										
				state budget		community budget	own means	of which		credits, loans	of which from foreign sources	irretrievable aids and endowments	of which from foreign sources	other
				total	of which subsidy			entrances from not main /collateral, secondary/ production sales	provision of environmental services					
A	B	C	1	2	3	4	5	6	7	8	9	10	11	12
4.1	Environmental investments /fixed costs/	pollution treatment												
4.2		pollution prevention												
4.3	Environmental current costs													

#### 5. Environmental goods and services production a/ by environmental directions and domains

Number of row	Name	Sum, ths. drams	of which by environmental domains									
			protection of atmospheric air and climate	water /surface/ protection from pollution by wastewater	land and under-ground water protection	of which underground water protection from pollution	waste management	protection from noise and vibration	protection of biodiversity and landscape	environmental scientific-technical researches and developments	other	
A	B	1	2	3	4	5	6	7	8	9	10	
5	<b>Environmental goods and services production, total</b>											
5.1	of which <b>goods production</b>											
5.1.1	of which are used inside the organization											
5.2	<b>service provision</b> (implemented works by organizations by outsider offers)											
	of which											
5.2.1	fixed assets protection and exploitation											

Number of row	Name	Sum, ths. drams	of which by environmental domains								
			protection of atmospheric air and climate	water /surface/ protection from pollution by wastewater	land and under-ground water protection	of which underground water protection from pollution	waste management	protection from noise and vibration	protection of biodiversity and landscape	environmental scientific-technical researches and developments	other
A	B	1	2	3	4	5	6	7	8	9	10
5.2.2	waste collection, transportation, neutralization and other										
5.2.3	environmental status and waste emission conditions control										
5.2.4	environmental specialists preparation										
5.2.5	environmental activity management										
5.2.6	other works and activities										

**b/ by energy saving and natural resources management directions**

Number of row	Name	Total, ths. drams	of which by natural resource management		
			use of recycled raw /materials/	energy recovery	heat/energy saving
A	B	1	2	3	4
6	Environmental goods and services production, total				
6.1	of which goods production				
6.2	service provision (implemented works by organizations by outsider offers)				

## 6. Economic structure of environmental costs

Number of row	Name of index	Total, ths. drams
A	B	1
6.1	Raw and materials	
6.2	Bought intermediate products, complementary constructions and details	
6.3	Fuel	
6.4	Energy	
6.5	Payments of productive works, services made by other organizations	
6.5.1	of which main repair of buildings and constructions	
6.5.2	main repair of machines and constructions	
6.6	Payments made for other services	
6.7	Rental payments	
6.8	Insurance payments	
6.9	Credit interests	
6.10	Remuneration for work and other payments equal to it	
6.11	Compulsory social insurance payments	
6.12	Fixed assets depreciation	
6.13	Other current costs	
6.14	Other capital expenditure	

## 7. Payments for nature protection and use

Number of row	Name of payment	Total, ths. drams	of which by environmental domains							
			Atmospheric air	Water /surface/	Land and underground water	of which underground water	waste	noise and vibration	biodiversity and landscape	other
A	B	1	2	3	4	5	6	7	8	9
7.1	For environment protection (nature protection)									
7.2	For nature stock use		X				X	X		

**8. Import and export of environmental goods and services**

8.1. Import ----- ths. drams.

8.2. Export ----- ths. drams.

**9. Observations and suggestions about questions included in the questionnaire /indices/, instruction and completing the questionnaire**

.....

.....

.....

.....

.....

Thank you for cooperation and sincere answers

Performer \_\_\_\_\_

Tel. \_\_\_\_\_

Executor \_\_\_\_\_

Position

\_\_\_\_\_  
Name, Surname                      Signature

“.....” May 2008

## INSTRUCTION

### COMPLETION OF THE QUESTIONNAIRE ON THE SURVEY OF ENVIRONMENTAL EXPENDITURES IMPLEMENTED BY ORGANIZATIONS

#### *I. General Statements*

1. The questionnaire is foreseen for the one-time registration of environmental expenditures implemented by organizations, production of goods and services. Questionnaire should be completed based on the given instruction by the head or appropriate authorized specialist (chief accountant, chief engineer, and ecologist) of the organization covered by the sample of the National Statistical Service of RA (NSS RA) with the help of interviewers.

2. The collected information will be used for the introduction of component “environmental measures’ accounts” of integrated environmental satellite accounts in the system of National Accounts of Armenia. It will enable to determine the interrelation between the economy and ecology in the republic, in particular, functional connection between economy and natural resources, raw materials and energetic flows, use of resources, technical emissions and waste movement and etc. As a result, the preconditions to observe the economy and ecology at the same level will be created. The information will be presented in summary, by whole republic, marzes and classification of activity types, so it is important to mention clearly on cover sheet of the questionnaire the actual types of activity of organization.

3. The numeric data of the questionnaire should be completed based on the accounting documents of the organization, in ths. drams, by rounding to decimal unit. In case of correction of respondent’s answer, it is necessary to strike out the wrong answer by two parallel lines and mention the right one. You can mention your comments and suggestions concerning any question on the margins of the questionnaire and the questions in general - in the item 9 at the end of the questionnaire.

#### *II. Methodological explanations.*

##### **1. ENVIRONMENTAL INVESTMENTS**

1. The data on environmental investment by environmental domains and investment purposes should be presented in this section. In the wide sense, the environmental measures consist of the measures on treatment, control, reduction, prevention or neutralization of pollutants and pollution. The environmental measures are divided on two separate groups – pollution treatment and pollution prevention. The measures on pollution treatment include methods, operations, technologies, processes or installations, which are aimed to collect, transport, treat and neutralize the pollutants after their emission, to control and measure the level of pollution, etc. The measures for pollutant treatment include the cost of goods and services produced only with nature protection purposes. These goods and services had a significant importance for treatment of pollutants emitted into air, water, waste dumped into land. They are clearly defined in the statistical definitions and easy to calculate. The measures for pollution prevention include the methods, technologies, equipment and processes, which are aimed to pollution prevention and decreasing of pollution formation in pollution sources. If the main purpose of investment is the liquidation of pollution consequences or decreasing of negative influence on environment then it should be fully reflected in the questionnaire. It should be mentioned, that it is impossible to separate environmental component from the cost of technical equipment completely integrated in the production process, so the part of environmental investment in the whole amount of investments was calculated equal to technology most favourable for the solving of the given environmental task.

Usually, as a result of investments made for increasing of production volume of main goods it is possible also the increasing of the volumes of emissions of hazardous substances, and if they exceed the standard maximum permissible emissions (MPE), it can be reason for environmental investments.

It is necessary to take into account the following groups of measures while determining “economic measures and goods connected to the environment” in the system of environmental satellite accounts /SEEA/: measures on environment protection, management and exploitation of natural resources, environmentally effective measures and decreasing of natural danger.

The measures directed to avoiding or liquidation of harms originated from polluted environment (for example, measures on people’s healthcare) have not been taken into account.

In the columns 1 and 3 of the table, the names of activities according to the environmental domains should be mentioned, and in the columns 2 and 4 – invested sum for each domain. If there were both investments for pollution treatment and prevention for the same domain, the both should be mentioned. For example: the new station for waste water treatment was built to decrease the emission of hazardous substances in water basin (pollution treatment investment), as a result of which the emission of heavy metals was decreased several times; introduction of system for double water use with equipment for waste water treatment, which is considered a part of whole system and implement a treatment of double used water (pollution prevention investment).

If there are investments for several measures with the same purpose for the same environmental domain, each of them should be recorded in separate lines.

If there are additional interpretations on investments, please specify them in the separate line below the table.

5. While completing the questionnaire, it is necessary to take into account the following explanations:

**Investments on hazardous substances catching, neutralization, pollution treatment** : the investments made for applying the methods, introduction of technologies and installations, implementation of processes of collection and transportation of pollutants after their emission. As a result, the catching, neutralization and treatment of pollutants, control and measure of the level of pollution are implemented.

**Investments on detrimental influence prevention, pollution prevention**: the investments made for applying, introduction, implementation of methods, technologies, installations and processes of pollution prevention and decreasing. As a result, the negative influence on environment is decreased or prevented.

The measures on environmental investments by domains (by CEPA-2000 classification) are the following:

**a) Protection of atmospheric air and climate**

The capital investments made for protection of air basin are directed to:

- prevention (decreasing) of emission of hazardous substances into air during the industrial activity,
- introduction of non-waste technologies,
- introduction of systems for catching and neutralization of hazardous substances from the emitted gases
- control of negative influence of gases emitted into atmosphere from transport means,
- prevention and monitoring of atmospheric air pollution,
- implementation of other measures for protection of atmospheric air.

The equipments (installations) for processing of gas emissions are:

- equipment for thermal and catalytic burning of the emitted gases,

- equipment for separation of emitted gases by gravitational and inertial methods, including centrifuges,
- electrostatic cleaners,
- bio-filters,
- special filters for emitted radioactive gases,
- condensers and equipment for cooling (condensation) of gases for prevention or decreasing of air pollution,
- equipment for additional heating of gas emissions in order to emit them in top layers of atmosphere,
- equipment for burning control for pollution prevention,
- equipment for control of gas emissions, concentrates and smell from production equipment,
- equipment for collection and condensation of steam,
- air compressors,
- equipment for air cleaning,
- rejectors for oil aerosols,
- rejectors cleaning air from dust emitted from lacquering equipment,
- dust filters, etc.

**b) Water protection from pollution by wastewater (without underground water)**

The capital investments made for water protection are directed to:

- prevention of water pollution by changing of industrial processes,
- waste water collection and treatment,
- prevention and control of thermal pollution of water,
- pollution abatement of land by waste water,
- prevention, monitoring of pollution of surface water,
- implementation of other measures for water resources protection.

The equipments for waste water processing are:

#### Equipment for biological and chemical treatment

- equipment for aerobic and non-aerobic treatment,
- equipment for separation of metals, phosphates and fluorides by ionization method,
- ultra-filters and hyper-filters, neutralizing filters and etc.

#### Equipment for mechanical treatment

- rejectors for separation of solid substances and other filters,
- equipment for separation and absorption of oils and fats,
- nets, rods, obstacles for catching of big wastes,
- equipment for inert cleaning, including hydraulic cyclones, centrifuges and etc.

#### Equipment for waste water collection and transportation

- containers, cisterns, etc., facilities for the prevention of waste water flows,
- containers for radioactive waste water,
- sewerage system, waste water treatment stations and etc.

#### Equipment for decreasing of thermal pollution of water

- coolers, equipment for decreasing water pollution,
- steam condensers, cooling towers and other coolers.

#### Equipment for physicochemical treatment

- equipment for separation of metals, phosphates and fluorides by ionization method,
- ultra-filters and hyper-filters, neutralizing filters and etc.

### **c) Land and underground water protection**

The capital investments made for land protection are directed to:

- prevention of land degradation, desertification, land recovery,
- monitoring of lands requiring conservation,
- prevention, abatement of pollution of underground water,
- implementation of other measures for land conservation.

The equipments for land conservation are:

- equipment for biologic treatment of lands,
- equipment for examination, measuring and observation of land pollution, etc.

#### **d) Waste management**

The capital investments made for waste management are directed to:

- negative influence control, decrease of the volume of waste generated during the final consumption of goods, control of industrial waste generation or decreasing of their negative influence (prevention of waste generation due to changing of industrial process),
- collection, treatment and transportation to the corresponding landfills (for incineration, waste disposal and other types of processing) of hazardous waste ,
- collection, treatment and transportation to the corresponding landfills (for incineration, waste disposal and other types of processing),
- collection, treatment and transportation to the corresponding landfills (for incineration, waste disposal and other types of processing) of non-hazardous waste,
- use of waste for production of commodities, energy generation and other purposes,
- monitoring of waste movement,
- implementation of other measures for waste management

The equipments for waste management are:

- transport means for waste transportation,
- containers for waste storage and transportation,
- equipment for separation and grouping of waste,
- equipment for waste condensation and compression,
- equipment for separation of heavy metals from waste,
- equipment for waste incineration,
- compressor for plastic waste,
- compressor for incinerated waste,
- equipment for management of hazardous waste,
- mills for waste crushing, etc.

#### **e) Protection from noise and vibration**

The capital investments made for measures on protection from noise and vibration were directed to the protection from noise and vibration above the defined standards (for example, construction of sound-proof walls and installation of anti-vibration equipment). The mentioned investments were directed to:

- reduction of noise and vibration from motor roads and railways (in particular, creation of anti-noise and anti-vibration systems),
- reduction of noise nuisance from transport means,
- reduction of industrial noise and vibration (construction of creation of anti-noise and anti-vibration systems),
- monitoring of noise and vibration impact,
- implementation of other measures for control of noise and vibration impact.

The equipments for reducing noise and vibration are:

- constructions (facilities) for noise reduction,
- sound-proof windows,
- noise-reducing mufflers of inflows and outflows of compressor gases,
- wrapping of pipes and equipment for acoustic insulation,
- equipment for noise measurement,
- equipment for reduction of noise from pumps and electric equipment, etc.

#### **f) Protection of biodiversity and landscape**

The capital investments made for protection of biodiversity and landscape were directed to:

- protection of bio resources (protection of flora and fauna),
- protection of landscapes and its habitants,
- recruitment of species and biodiversity of landscapes,
- management and development of special conservation areas of nature,
- implementation of monitoring,
- implementation of other measures for protection of bio resources.

#### **g) Other**

This part includes other investments not mentioned above, which were made for introduction of systems for control of environment pollution (for example, non-radiation protection).

## **2. INVESTMENTS DIRECTED TO THE NATURAL STOCK ECONOMY**

6. This table represents the information on amounts invested for natural stock economy. There is a separation between expenditures on introduction of equipment for energy economy (column 1) and heat recovery (column 3) (compressors for lower consumption of energy, equipments providing reprocessed air circulation, heat exchangers, ovens of reminder gases burning, etc).

### 3. CURRENT ENVIRONMENTAL EXPENDITURE

7. This table represents the information on current environmental expenditures implemented by organization by environmental domains, out of which the payments to other organizations made for rendering of services and of which - paid to private sector should be presented by separate lines.

8. During the completion of the table, it is necessary to take into account the following explanations:

#### a) Protection of atmospheric air and climate

Current expenditures for atmospheric air protection include the following types of expenditure for:

- Serving and exploitation of installations for preserving of atmospheric air,
- Monitoring of the presence of hazardous substances in the smoking gases and the atmospheric air quality,
- Decreasing of the negative influence of industrial activity on the atmospheric air,
- Use of useful substances from the exhaust gases, etc.

#### b) Water (surface) protection

Current expenditures for water resources protection include the following types of expenditure for:

- Serving and exploitation of installations for preserving of water resources,
- Monitoring of the quality of natural water and sewage,
- Managing of water and water-protective systems and water distribution systems,
- Preserving and maintaining the main quantitative standards of water resources, particularly for industrial use of pure water and reducing its losses while transportation,
- Extracting of useful substances from sewage and their use, etc.

#### c) Land and underground water protection

Current expenditures for land resources include the following types of expenditure for:

- Serving and exploitation of systems for preserving the land resources,
- Preserving and restoring the main standards of land resources,
- Underground water exploitation, etc.

**d) Waste management**

Current expenditures for waste management include the following types of expenditure for:

- Serving and exploitation of installations for preserving the environmental media from the negative influence of consumption and industrial waste,
- Decrease of waste generation, destruction of controlled and uncontrolled waste dumps,
- Monitoring of industrial waste generation and disposal level,
- Solid waste collection and preservation,
- Disposal of waste in the special places used for preserving, neutralizing (sanitary treatment) or using, which are under the control of the third organizations (target ground, complexes, waste-treatment installation, incineration), as well as to the uncontrolled places for their preserving.

**e) Protection from noise and vibration**

These expenditures include the expenditure for serving and exploitation of installations and facilities for a special purpose.

**f) Protection of biodiversity**

These expenditures include the following types of expenditure for:

- Serving and exploitation of system of biodiversity protection,
- Preserving and restoring the main standards, etc.

**g) Other**

This group includes all expenditures for nature protection which are not mentioned above.

#### **4. FINANCING SOURCES OF ENVIRONMENTAL EXPENDITURES**

9. The financing sources consist of two parts – republican (internal) and foreign (external). If the investment was made not in money terms, but in terms of technologies, equipment and other intangible assets, the cash value of those goods should be mentioned in the corresponding cell of the table. If there is no possibility to mention precise cost, please mention the estimated price. The own funds of the organization also include income received from realization of energy, secondary raw materials, provision of territory, entrances from environmental activity of organization, irrespective of the fact, whether it is the main activity of organization or not. The subsidies granted to the organization for environmental purposes are provided for acquisition of equipment for prevention of environment pollution and in the terms of tax or other benefits.

## 5. PRODUCTION OF ENVIRONMENTALLY SIGNIFICANT GOODS AND SERVICES

10. This section should be completed by the organizations, which produce environmentally significant goods and render environmentally significant services, the volume of which should be presented by production price (without VAT).

The section consists of 2 parts. In the first part (table 5a) environmental production should be reflected by environmental directions and domains, and in the second part (table 5b) – by energy saving and natural resources management directions. The measures on management of natural resources, i.e. naturally formed recoverable and non-recoverable substances extracted from the natural environment, can be divided on two separate parts:

- management of resources: measures, i.e. methods, operations, technologies, processes or installations, which are foreseen for sustainable management of the natural resources,

- protection of resources: measures, which include production of more clear services, technologies and goods aimed to prevent/reduce the consumption of resources.

Environmentally significant goods – goods produced by the organization for sale and use inside the organization for own needs. These goods include:

- Environmentally significant objects, constructions, equipment, etc. (for sewage treatment and effective use of water resources, capture and treatment of hazardous substances emitted into atmospheric air, waste disposal and treatment) which are basic funds. The basic funds are material assets which are a) available in organization for production of goods, work implementation, rendering of services, realization of goods, lease and use for administrative purposes and b) foreseen to use for more than 1 year period,
- Environmentally significant tools, equipment and other goods which are not basic funds.

Environmentally significant services – work done by organization for external organizations by order. These services include:

- Preservation and exploitation of environmental basic funds,
- Waste collection, disposal, transportation and treatment, etc.,
- Monitoring of the conditions of natural environment and waste disposal,
- Training of the specialists in the sphere of environment,
- Management of environmental activity,
- Other work and measures directed to decrease the negative influence of industrial activity on environment, restoring and preserving of the quality of degraded environment.

## **6. ECONOMIC STRUCTURE OF ENVIRONMENTAL EXPENDITURES**

11. The lines “Raw and materials”, “Bought intermediate products, complementary constructions and details”, “Fuel”, “Energy” represent the data in primary cost on raw and materials, natural resources, interiors, intermediate products, complementary constructions, fuel and energy used during the production activity of the environment sphere. The primary costs are formatted by actual acquisition price (in case of gratuitous provision of goods – according to the documents on receipts and delivery, and if there is no price mentioned at these documents, then the good should be evaluated by value of the similar goods available in the organization and in case of absence of latter – on value determined by the examination method) and all transportation costs, excluding tax, custom and other compulsory payments.

In the line “Payments of productive works, services made by other organizations”, the expenditure related to the productive works done and services rendered by other organizations in the sphere of environment (implementation of certain activities related to the preparation of production process, processing of raw and materials, control of technological processes, liquidation of defects revealed during the exploitation, construction and transport services, etc.) should be presented.

In the line “Main repair of buildings and constructions”, the expenditures on main repair of buildings and constructions done by other organizations should be presented.

In the line “Main repair of machines and constructions”, the expenditures on main repair of machines and constructions done by other organizations should be presented.

In the line “Payments made for other services”, the expenditures related to the other environmental services of the organization should be presented.

In the line “Rental payments”, other expenditures related to the payments for land, fixed assets rented by organization should be presented.

The line “Insurance payments” represents the insurance payments paid by the organization as insured entity for the inventory insurance (excepting insurance payments related to the transportation of material resources included in primary cost).

In the line “Credit interests”, the interests for all types of credits (short-term, long-term, deferred, extended, overdue, etc.) received by the organization should be presented.

The line “Remuneration for work and other payments equal to it” represents the remuneration for actual work (salary, wage), incentive payments and compensations of permanent industrial and non-industrial personnel and contract employees. Incentive payments are premiums for annual work, payments for professional experience, lump sums for long service. Compensations (related to the working regulations and conditions) are payments for night, off-hour work, work on holidays, combine jobs, as well as for hard work, hazardous and very hazardous works according to the standards determined by RA legislation. Remuneration for work and other payments equal to it include also payments for annual and additional holidays and other payments.

In the line “Compulsory social insurance payments” compulsory payments of insured person determined by RA legislation should be reflected.

The line “Fixed assets depreciation” represents amounts for depreciation of fixed assets belonging to the organization by property right or leased for long-term.

Value of this amount is defined according to the depreciation standards for it’s completely reconstruction determined by RA legislation.

In the line “Other current costs” all expenditures of organization not mentioned above should be completed.

In the line “Other capital expenditure”, expenditures implemented for creation, reproduction and acquisition of environmentally significant fixed assets (new construction, enlarging, reconstruction, technical re-equipment of organization, acquisition of buildings, constructions, machinery and equipment) and other expenditure, which are considered environmental investment should be completed.

## **7. PAYMENTS FOR NATURE PROTECTION AND USE**

12. The data on payments for nature protection and use determined by RA Legislation should be presented in this part.

## **8. IMPORT AND EXPORT OF ENVIRONMENTAL GOODS AND SERVICES**

13. This part represents expenditure (payments) on import and export of environmental goods and services by organization. The cost of import and export of goods should be determined by FOB prices on the custom border of the exported country. This cost includes cost of goods and services rendered for the transportation to evaluation point, including cost of loading for further transportation.

## Questionnaire

On Investments and Current Expenditure in the Sphere of Nature Protection /According to data of 2007/ \*

A	B	Total, ths. drams	Including									
			Protection of atmospheric air and climate	Water protection from pollution by wastewater /without underground water/	Land and underground water protection	of which underground water protection from pollution	Waste management	Protection from noise and vibration	Protection of biodiversity and landscape	Environmental administration, training, information publication, etc.	Environmental scientific research and development	Other
A	B	1	2	3	4	5	6	7	8	9	10	10
Investments	<b>TOTAL</b>											
	including from State Budget											
	of which subsidies											
	own funds											
	credits, loans											
	off-budget means											
Current expenditure	<b>TOTAL</b>											
	including from State Budget											
	of which subsidies											
	own funds											
	credits, loans											
	off-budget means											

- The classification of environmental domains was done by UN CEPA-2000 classification.

# REPORT

## Environmental Expenditures in the Republic of Armenia for 2007

**Project Leader:**

**MR. YURI POGHOSYAN**  
*Member, State Council on Statistics,  
National Statistical Service of RA*  
☎ (3741) 524 618  
yupoghosyan@armstat.am

**Responsible for the report:**

**MS. NELLI BAGHDASARYAN**  
*Head  
Social Sphere and Nature Protection Statistics  
Division, National Statistical Service of RA*  
☎ (3741) 524 514

**MR. SARGIS PETROSYAN**  
*Leading Specialist*

**MS. ANAHIT NAZARYAN**  
*First Category Specialist*

**MRS. ASTGHIK PODPOMOGOVA**  
*Statistician*

**MR. ASHOT HARUTYUNYAN**  
*Head  
Nature Protection and Use Economy Division  
Ministry of Nature Protection of RA*

**MRS. AGAPI HARUTYUNYAN**  
*Candidate of Economic Sciences, Docent  
Armenian State University of Economy*

**Responsible for sample design  
and software of the report:**

**MR. LAERT HARUTYUNYAN**  
*Head  
Business-Register Division  
National Statistical Service of RA*

**Computer and editing:**

**MS. HASMIK YEGHIAZARYAN  
MS. RUZANNA MARTIROSYAN**