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NATIONAL REVIEW OF THE APPLICATION OF ENVIRONMENTAL INDICATORS

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EVALUATION OF FURTHER SIX INDICATORS FROM THE *UNECE INDICATOR GUIDELINES*

Indicator	A. Effective inter-agency cooperation mechanisms to produce the indicator	B. Data quality assurance and control procedures for the production of the indicator	C. Publication of the indicator in statistical compendiums and state-of-the-environment reports
BOD and concentration of ammonium in rivers	The Laboratories (Central and regional ones) of the National Environmental Agency are responsible for physical-chemical analyses of surface water quality. Agency developes a data base where processed water quality data is stored. Then Agency sends information bulletin to the Ministry of Environment Protection.	ISO - 17025 The Agency Regularly carries out Quality Ensuring laboratory tests. Laboratories participate in international inter –calibration examinations. Based on exams results laboratory receives certificates. Beginning from 2010 BOD5 is measured in according with the ISO 5815: 2003 methodology, and Ammonium -ISO 6778: 1984	Monthly information bulletin "Short Review on Environmental Pollution of Georgia" with surface water quality data is available on the web-page http://www.aarhus.ge. Available information is provided in State of Environment (SoE) reports on the web-pages: www.moe.gov.ge; http://www.aarhus.ge
Nutrients in fresh water	The Laboratories (Central and regional ones) of the National Environmental Agency are responsible for physical-chemical analyses of surface water quality. Agency developes a data base where processed water quality data is stored. Then Agency sends information bulletin to the Ministry of Environment Protection. Recently groundwater quality monitoring is not carried out.	ISO - 17025 The Agency Regularly carries out Quality Ensuring laboratory tests. Laboratories participate in international inter – calibration examinations. Based on exams results laboratory receives certificates. Nitrates (NO3) is measured in according with ISO 7890-3: 1988 methodology	Monthly information bulletin "Short Review on Environmental Pollution of Georgia". Surface water quality data is available on the web-page http://www.aarhus.ge. Information is available in State of Environment (SoE) reports.
Nutrients in coastal seawaters	The Laboratories of the National Environmental Agency are responsible for physical-chemical analyses of Black Sea marine water quality. Based on the fact that monitoring is not regular and not done in the same sites the figures are not used.	The Agency Regularly carries out Quality Ensuring laboratory tests. Laboratories participate in international inter – calibration examinations.	The data is submitted to the Commission on the Protection of the Black Sea Against Pollution (Istanbul, Turkey). Information is available in State of Environment (SoE) reports.
Area affected by soil erosion	there are no regular monitoring system on quality of land.	**....**	Information is available in State of Environment (SoE) reports.
Pesticide use	The statistics about pesticides is obtained from sampling survey of agricultural holdings and Geostat does not have any other sources of information.	In 2007, using the sample survey questionnaires of the agricultural holding National Statistics Office of Georgia started to account for number of pesticides used in agriculture. However, the result was not favorable as majority of respondents found difficult to remember the number and type of used pesticides. In addition, the pesticides were purchased in various forms – dissoluble, powder, various dimensions – gram, kilogram, liter, which was causing difficulties in obtaining the good quality information. Therefore, the obtained information about pesticides was considered as unreliable, however, the area of annual and perennial cultures processed with pesticides is known.	Statistical data about pesticides is published annually in "Agricultural statistics", in English and Georgian languages. The information is also available on Geostat's official website (www.geostat.ge) and in State of Environment (SoE) reports (www.moe.gov.ge; http://www.aarhus.ge)
Consumption of ozone-depleting substances	Data is collected based on specific questionnaire from customs service, importer companies and end-users.	Comparison of gained data from different sources. Data is collected by national experts.	Information is provided in State of Environment (SoE) reports.

Question A.	Effective inter-agency cooperation mechanisms to produce the indicator
Please describe cooperation arrangements, if any, which have been established in your country to collect the necessary data for the indicator. These may involve statistical agencies, ministries of water management, agriculture, transport, interior, environment, economic development and energy, hydro-meteorological services and agencies on geology, as appropriate. The description should cover problems met, solutions found and possible further steps envisaged or needed.	

Question B.	Data quality assurance and control procedures for the production of the indicator
Please describe data quality assurance and control procedures for the production of the indicator. The description should cover problems met, solutions found and possible further steps envisaged or needed. References should be made to any international methodologies and guidelines that are followed to ensure data quality and control.	

Question C.	Publication of the indicator in statistical compendiums and state-of-the-environment reports
Please present the evidence of the indicator publication in statistical compendiums and state-of-the-environment reports (titles, names of the publishing houses, cities and years of the publications, languages, number of copies published, Internet addresses, and whether time-series data was published on the indicator.	

The description of the indicators is available online at: www.unece.org/env/documents/2007/ece/ece.belgrade.conf.2007.inf.6.e.pdf.

Time series data on the indicators for 1990-2010, Table 1. Biochemical oxygen demand (BOD_5) and concentration of ammonium in rivers: *Georgia*

Name of river	river Rioni - Oni town												
Distance to mouth or downstream frontier (km)	271.15 km												
	Unit	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sampling frequency - average	Per sampling period	6	6		2	2	2		3	7	9	12	12	12
BOD_5	Mg of O_2 /liter	1.58	1.73		2.2	1.45	1.78		1.82	1.44	1.89	1.72	1.74	1.73
Ammonium	µg of N/liter	843	290		190	470	380		473	718	512	572	498	622

Notes:

Average values of concentrations for sampling period should be filled in. Please specify if the sampling period concerns the whole year or the seasonal period.
Countries are asked to report on at least three large rivers in order to have a balanced representation of water quality. Data for more rives can be filled if the country decides to do so. Data should represent the main rivers draining the large watersheds. Please fill in one sheet for each selected river. For each river, at least three sampling points should be filled in: One for the first sampling point downstream the well or downstream or the frontier (if the river enters the country from neighboring country), the second for the first sampling point upstream the mouth or upstream the e frontier where the river leaves the territory of the country and the third sampling point in between. Data for more sampling points can be filled if the country decides to do so.
If available, the map showing the location of sampling points should be added.
Analytical method for determining of BOD5 should be compliant with ISO 5815-I: 2003 and ISO 5815-2:2003; if different method is used, specify, please. Analytical method for determining ammonia ion should be compliant with ISO 7150: 1984 and ISO 6778: 1984; if different method is used, specify, please.

Glossary:

BOD_5: Biochemical oxygen demand – amount of dissolved oxygen required by organisms for the aerobic decomposition of organic matter present in water. This is measured at 20 degree Celsius for the period of five days.

Ammonium: Ion NH_4^+.

Name of river	r. Rioni - the city of Kutaisi												
Distance to mouth or downstream frontier (km)	155.5												
	Unit	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sampling frequency - average	Per sampling period	8	8	12	12	12	12	10	10	9	10	12	12	12
BOD_5	Mg of O_2 /liter	2.29	1.96	2.48	2.61	2.8	2.07	2.16	2.36	1.48	1.95	1.88	1.75	1.87
Ammonium	µg of N/liter	1632	750	1022	746	629	500	1433	574	882	772	759	690	948

Notes:

Name of river	r. Rioni - the city of Poti												
Distance to mouth or downstream frontier (km)	0.45												
	Unit	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sampling frequency - average	Per sampling period	6	9	2	8	5	9	4	8	4	9	12	12	12
BOD_5	Mg of O_2 /liter	2.2	1.89	1.26	2	2.73	2.08	2.46	2.83	1.66	2	2.05	1.95	1.99
Ammonium	µg of N/liter	1179	870		1445	966	910	1215	1170	350	871	1070	988	1170

Notes:

Name of river	r. Mtkvari - Khertvisi village												
Distance to mouth or downstream frontier (km)	1140 km												
	Unit	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sampling frequency - average	Per sampling period	12					3	10	11	10	7	12	12	10
BOD_5	Mg of O_2 /liter	0.97					1.28	2.05	1.24	1.74	1.58	1.53	1.55	1.62
Ammonium	µg of N/liter						667	917	490	683	690	329	303	122

Notes:

Name of river	r. Mtkvari - the city of Tbilisi													
Distance to mouth or downstream frontier (km)	890 km													
	Unit	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sampling frequency - average	Per sampling period		6	2	5	8	3	10	11	9	7	12	12	12
BOD_5	Mg of O_2 /liter		3.58	3.5	2.75	2.54	4.34	2.15	2.43	1.74	2.46	3.97	4.16	1.97
Ammonium	µg of N/liter		1390	2080	1880	1183	1247	1288	1307	1441	920	717	1322	227

Notes:

Name of river	r. Mtkvari - the city of Rustavi													
Distance to mouth or downstream frontier (km)	854.95 km													
	Unit	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sampling frequency - average	Per sampling period		5	3	2	7	3	10	10	10	7	12	12	12
BOD_5	Mg of O_2 /liter		1.3	3.42	2.37	2.84	5.27	2.25	2.89	2.83	2.84	3.72	3.72	2.29
Ammonium	µg of N/liter		1180	1250	2970	1206	1253	1565	1488	1290	970	758	1300	328

Notes:

Time series data on the indicators for 1990-2010, Table 2a. Nutrients in freshwater - rivers: *Georgia*

Name of river	river Rioni - Oni town												
Distance to mouth or downstream frontier (km)	271.15												
	Unit	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sampling frequency - average	Per sampling period	6	6		2	2	2		3	7	9	12	12	12
Phosphates as P	µg/liter													
Nitrates (NO3)	µg/liter	943	60		160	240	240		420	100	255	401	428	564

Note:

Average values of concentrations for sampling period should be filled in. Please specify if the sampling period concerns the whole year or the seasonal period.
Countries are asked to report on at least three large rivers in order to have a balanced representation of water quality. Data for more rives can be filled if the country decides to do so. Data should represent the main rivers draining the large watersheds. Please fill in one sheet for each selected river. For each river, at least three sampling points should be filled in: One for the first sampling point downstream the well or downstream or the frontier (if the river enters the country from neighboring country), the second for the first sampling point upstream the mouth or upstream the e frontier where the river leaves the territory of the country and the third sampling point in between. Data for more sampling points can be filled if the country decides to do so.

If available, the map showing the location of sampling points should be added.
Methods of measurement should be specified. It is recommended that analytical method for determining nitrates is compliant with ISO 7890-3: 1988 and analytical method for determining phosphates is compliant with ISO 6878: 2004.

Glossary:

Total phosphorus: Sum of phosphorus compounds measured in terms of phosphorus.

Time series data on the indicators for 1990-2010, Table 2b. Nutrients in fresh water - lakes: *(Georgia)*

Name of lake	The Paliastomi lake												
Name of measuring station	the city of Poti												
Surface area (km^2)	547												
Maximum depth (m)	3.2												
Mean depth (m)	2.1												
	Unit	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sampling frequency - average	Per sampling period	3		3	6				7		4	2	4	4
Total phosphorus as P	µg/liter													
Nitrates (NO3)	µg/liter	972		750	750				1257		292	179	222	62.5

Note:

Average values of concentrations for sampling period should be filled in. Please specify if the sampling period concerns the whole year or the seasonal period.
Countries are asked to report on at least two large lakes in order to have a balanced representation of water quality. Data for more lakes can be filled if the country decides to do so. Please fill in one sheet for each selected lake. For each lake, data from at least one sampling point should be filled in. Data for more sampling points can be filled if the country decides to do so.
Methods of measurement should be specified. It is recommended that analytical method for determining nitrates is compliant with ISO 7890-3: 1988 and analytical method for determining phosphates is compliant with ISO 6878: 2004.
If available, the map showing the location of sampling points should be added.

Glossary:

Total phosphorus: Sum of phosphorus compounds measured in terms of phosphorus.

Time series data on the indicators for 1990-2010, Table 2c. Nutrients in fresh water - groundwater: *(country name)*

Name of water object														
Type of measuring station (shallow well, deep well, spring)														
	Unit	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sampling frequency - average	Per sampling period													
Nitrates (NO3)	µg/liter													

Note:

Note:
Average values of concentrations for sampling period should be filled in. Please specify if the sampling period concerns the whole year or the seasonal period.
Countries are asked to report on at least two aquifers in order to have a balanced representation of ground water quality. Data for more aquifers can be filled if the country decides to do so. Please fill in one sheet for each selected aquifer. For each aquifer, data from at least one measuring station should be filled in. Data for more measuring stations can be filled if the country decides to do so.

If available, the map showing the location of measuring stations should be added.
Type of measuring station should be presented in compliance with national legislation (including explanation)
Analytical method for determining nitrates should be compliant with ISO 7890-3: 1988; if different method is used, please specify.

Time series data on the indicators for 1990-2010, Table 2a. Nutrients in freshwater - rivers: *(Georgia)*

Name of river	r. Rioni - the city of Kutaisi													
Distance to mouth or downstream frontier (km)	155.5													
	Unit	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sampling frequency - average	Per sampling period	8	8	12	12	12	12	10	10	9	10	12	12	12
Phosphates as P	µg/liter													
Nitrates (NO3)	µg/liter	695	270	235	387	365	538	876	449	115	498	633	586	614

Note:

Time series data on the indicators for 1990-2010, Table 2a. Nutrients in freshwater - rivers: *(Georgia)*

Name of river	r. Rioni - the city of Poti													
Distance to mouth or downstream frontier (km)	0.45													
	Unit	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sampling frequency - average	Per sampling period	6	9		8	5	9	4	8	4	9	12	12	12
Phosphates as P	µg/liter													
Nitrates (NO3)	µg/liter	754	430		626	704	848	1380	835	127	664	710	675	863

Note:

Time series data on the indicators for 1990-2010, Table 2a. Nutrients in freshwater - rivers: *(Georgia)*

Name of river	r. Mtkvari - Khertvisi village													
Distance to mouth or downstream frontier (km)	1140													
	Unit	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sampling frequency - average	Per sampling period						3	10	11	10	7	12	12	10
Phosphates as P	µg/liter													
Nitrates (NO3)	µg/liter						280	453	348	300	873	472	1017	981

Note:

Time series data on the indicators for 1990-2010, Table 2a. Nutrients in freshwater - rivers: *(Georgia)*

Name of river	r. Mtkvari - the city of Tbilisi													
Distance to mouth or downstream frontier (km)	890 km													
	Unit	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sampling frequency - average	Per sampling period		6	2	5	8	3	10	11	9	7	12	12	12
Phosphates as P	µg/liter													
Nitrates (NO3)	µg/liter		660	500	1275	1256	390	573	551	46	46	833	846	1005

Note:

Time series data on the indicators for 1990-2010, Table 2a. Nutrients in freshwater - rivers: *(Georgia)*

Name of river	r. Mtkvari - the city of Rustavi													
Distance to mouth or downstream frontier (km)	854.95 km													
	Unit	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sampling frequency - average	Per sampling period		5	3	2	7	3	10	10	10	7	12	12	12
Phosphates as P	µg/liter													
Nitrates (NO3)	µg/liter		500	630	1250	10143	530	845	532	582	970	554	1078	933

Note:

Time series data on the indicators for 1990-2010, Table 3. Nutrients in coastal seawaters: *Georgia*

Name of coastal zone														
	Unit	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Number of selected sampling points (from which average concentrations are calculated)														
Sampling frequency – mean	Per year													
Number of analyses - average	Per year													
Total phosphorus as P – Summer	µg/liter													
Total nitrogen as N - Summer	µg/liter													
Total phosphorus as P – Autumn	µg/liter													
Total nitrogen as N - Autumn	µg/liter													
Total phosphorus as P – Winter	µg/liter													
Total nitrogen as N - Winter	µg/liter													
Total phosphorus as P – Spring	µg/liter													
Total nitrogen as N - Spring	µg/liter													

Notes:

Average values of concentrations from all selected sampling points for summer, winter, autumn and spring period should be filled in. In the case of high number of sampling points on the coastal zone, the countries should select at least five representative points for the calculation of average concentrations to have a balanced representation of water quality. Data for more sampling points can be used for the calculation of average concentrations if the country decides to do so. Please fill in one sheet for each coastal zone. If available, the map showing the location of sampling points should be added.

Methods of measurement should be specified. It is recommended that analytical method for determining nitrates should be compliant with ISO 7890-3: 1988 and analytical method for determining phosphates should be compliant with ISO 6878: 2004. Preferably, reference methods as agreed upon in the Joint monitoring program established within the framework of the OSPAR Convention (http://www.ospar.org).

Time series data on the indicators for 1990-2010, Table 4. Area affected by erosion: *Georgia*

Areas affected by water erosion														
	Unit	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Total agricultural land	Km^2	29'775	29'881	30'197	30'227	30'235	30'258	30'230						
No affect (tolerable)	Km^2													
Share in total agricultural land	%													
Light affect	Km^2													
Share in total agricultural land	%													
Moderate affect	Km^2													
Share in total agricultural land	%													
Strong affect	Km^2													
Share in total agricultural land	%													
Extreme affect	Km^2													
Share in total agricultural land	%													
Total affect	Km^2				4'180									
Share in total agricultural land	%				14									
Areas affected by wind erosion														
	Unit	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Total agricultural land	Km^2	29'775	29'881	30'197	30'227	30'235	30'258	30'230						
No affect (tolerable)	Km^2													
Share in total agricultural land	%													
Light affect	Km^2													
Share in total agricultural land	%													
Moderate affect	Km^2													
Share in total agricultural land	%													
Strong affect	Km^2													
Share in total agricultural land	%													
Extreme affect	Km^2													
Share in total agricultural land	%													
Total affect	Km^2				5'825									
Share in total agricultural land	%				19	19								

Total areas affected by erosion (water and wind)														
	Unit	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Total agricultural land	Km^2	29'775	29'881	30'197	30'227	30'235	30'258	30'230						
No affect (tolerable)	Km^2													
Share in total agricultural land	%													
Light affect	Km^2													
Share in total agricultural land	%													
Moderate affect	Km^2													
Share in total agricultural land	%													
Strong affect	Km^2													
Share in total agricultural land	%													
Extreme affect	Km^2													
Share in total agricultural land	%													
Total affect	Km^2				10'005									
Share in total agricultural land	%				33									

Glossary:
Erosion: Water and wind erosion is measured as net loss of soil (in tons per hectare per year).
Erosion – Classification (the same for both water and wind erosion):
No affect (tolerable): Net loss lower than 6 tons/hectare/year
Light affect: Net loss 6.0 – 10.9 tons/hectare/year
Moderate affect: Net loss 11.0 – 21.9 tons/hectare/year
Strong affect: Net loss 22.0 – 32.9 tons/hectare/year
Extreme affect: Net loss higher than 33 tons/hectare/year
Note: If your country applies classification for the severity of erosion different from that presented above, provide the data according to the national classification and give the detailed explanation of the national system. If data for 1990 or other year is not available, fill in "n.a.".

More information:
Assessment and Reporting on Soil Erosion, Technical Report 94/2003, European Environment Agency 2003, http://www.eea.europa.eu/publications/technical_report_2003_94

Time series data on the indicators for 1990-2010, Table 5. Pesticide use: *Georgia*

Substance	Unit	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Insecticides – consumption	hectare									24	15	23	42	
Herbicides consumption	hectare									32	14	17	35	
Fungicides consumption	hectare									82	95	142	131	
Plant regulators – consumption	ton													
Rodenticides – consumption	ton													
Others (e.g. mineral oils) – consumption	ton													
Total consumption (all pesticides)	hectare									137	123	182	208	
Total arable and permanent cropland	1000 hectare	1'127	1'066	1'062	1'063	1'064	1'066							
Pesticide use per unit of land	Kg/hectare													

Note:

Data should relate to pesticide consumption in agriculture, forestry and gardening. Otherwise, kindly indicate if data refer to sales, distribution or imports for use in particular sectors. If data for 1990 or other year is not available, fill in "n.a.".
Data should be expressed in active ingredients (A.I.). Therefore, calculate the volume of A.I. contained in individual products and then include it in the relevant group in table 3. Alternatively, the data may be reported by: consumption in commercial products; sales; distribution or imports for use in the agricultural sector.

Glossary:

Insecticide:	Pesticide used against insects
Herbicide:	Pesticide against unwanted plants (weed)
Desiccant:	Hygroscopic substance that induces or sustains a state of dryness
Fungicide:	Pesticide for the control of fungi and oomycetes
Bactericide:	Pesticide for the control of bacteria
Plant regulator:	Pesticide that retards the growth of plants
Rodenticide:	Pesticide for the control of rodens

Active Ingredients: A pesticide product has two main components: the Active Ingredient(s) and the inert (other) ingredient(s). The active ingredient is the specific compound designed to adversely effect a pest. Pesticide active ingredients are generally not applied in their pure form, but are usually included in formulations with inert ingredients that improve their storage, handling, application, effectiveness, or safety. Content of active ingredient is obviously presented either in pesticide product documentation or on the pesticide product packaging.

More information:

Comprehensive information on pesticides can be found at the FAO page http://www.fao.org/agriculture/crops/core-themes/theme/pests/en.

The detailed list of pesticides including chemical substances and example of trade names of commercial products can be found at http://www.fao.org/economic/ess/ess-agri/ess-resource-meth/en (Questionnaires, Pesticides, 2010, Annex I)

Time series data on the indicators for 1990-2010, Table 6a. Consumption of ozone-depleting substances (calculated levels in tons of substances): *Georgia*

Substance	Unit	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
CFCs	ton	n.a.	13.06	21.5	18.80	15.50	12.60	8.55	8.18	5.80	2.7	0	0	0
Halons		n.a.	7.5	5	6.5	6.4	6.4	6	2.7	0	0	0	0	0
Other fully halogenated CFCs														
Carbon tetrachloride														
Methyl chloroform														
HCFCs		n.a.	3.95	15	15	17.1	16.4	19.575	20.24	28.7	32.5	106.84	81.2	104.8
HBFCs														
Bromochloromethane														
Methyl bromide		n.a.	35	22	18.00	17.50	17.00	16.50	26.4	22	3.00	1.00	2.00	1.50

Note:

Calculated levels of consumption mean production plus imports minus export of controlled substances. However, any export of controlled substances to non-Parties (to the Montreal Protocol) is not to be subtracted in calculating the consumption level of the exporting Party. If data for 1990 or other year is not available, fill in "n.a.". Consumption is not to be multiplied by ODP.

Glossary:

CFCs: Chlorofluorocarbons (CFC-11, CFC-12, CFC-113, CFC-114 and CFC-115)

Halons: halon 1211, halon 1301 and halon 2402

Other fully halogenated CFCs: CFC-13, CFC-111, CFC-112, CFC-211, CFC-212, CFC-213, CFC-214, CFC-215, CFC-216, CFC-217

HCFCs: Hydroclorofluorocarbons

HBFCs: Hydrobromofluorocarbons

ODP: Ozone depleting potential

Time series data on the indicators for 1990-2010, Table 6b. Consumption of ozone-depleting substances (calculated levels in tons of ODP): *Georgia*

Substance	Unit	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
CFCs	Ton of ODP	n.a.	13.06	21.5	18.80	15.50	12.60	8.55	8.18	5.80	2.7	0	0	0
Halons		n.a.	43.5	30.4	37.7	37.4	37.4	36.2	16.5	0	0	0	0	0
Other fully halogenated CFCs														
Carbon tetrachloride														
Methyl chloroform														
HCFCs		n.a.	0.21725	0.825	0.825	0.9405	0.902	1.076625	1.1132	1.5785	1.7875	5.8762	4.566	5.862
HBFCs														
Bromochloromethane														
Methyl bromide		n.a.	21	13.2	10.8	10.5	10.2	9.9	15.84	13.2	1.8	0.6	1.2	0.9
Total		n.a.	77.7773	65.925	68.125	64.3405	61.102	55.72663	41.6332	20.5785	6.2875	6.4762	5.766	6.762

Note: Values presented in Table 6a should be multiplied by appropriate values of ODP, as presented in the next sheet.

ODP Values of the Most Important ODS

Note: Only the ODP values of the most important ODS are listed below. Other ODS are rarely used and thus of little significance for reporting and assessing compliance. For a complete list of ODP values of controlled substances refer to the Annexes of the Montreal Protocol.

Group of substances	Substance	ODP
Annex A, Group I	CFC-11	1.0
	CFC-12	1.0
	CFC-113	0.8
	CFC-114	1.0
	CFC-115	0.6
Annex A, Group II	Halon-1211	3.0
	Halon-1301	10.juin
	Halon-2402	06.juin
Annex B, Group I	CFC-13	1.0
	CFC-111	1.0
	CFC-112	1.0
	CFC- 211 – CFC-217	1.0
Annex B, Group II	Carbon tetrachloride	01.janv
Annex B, Group III	Methyl chloroform	0.1
Annex C, Group I	HCFC-21	0.04
	HCFC-22	0.055
	HCFC-31	0.02
	HCFC-123	0.02
	HCFC-124	0.022
	HCFC-133	0.06
	HCFC-141b	0.11
	HCFC-142b	0.065
	HCFC-225	0.07
	HCFC-225ca	0.025
	HCFC-225cb	0.033
Annex E, Group I	Methyl bromide	0.6

Source: 1997 Update of the Handbook for the International Treaties for the Protection of the Ozone Layer, Montreal Protocol, Annexes A, B, C and E

More information:
Handbook for the Montreal Protocol on Substances that Deplete the Ozone Layer, Eighth edition, UNEP 2009 (in English), http://ozone.unep.org/Publications
Handbook on Data Reporting under the Montreal Protocol, UNEP 1999 (in English and Russian); http://ozone.unep.org/Data_Reporting/Data_Reporting_Tools.