

Examples of Emission Trends 1990 – 2010 as reported by EECCA and West Balkan countries under the CLRTAP

Status as of September 1st, 2012

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Table 1: Overview Table for EEAAC and West Balkan countries

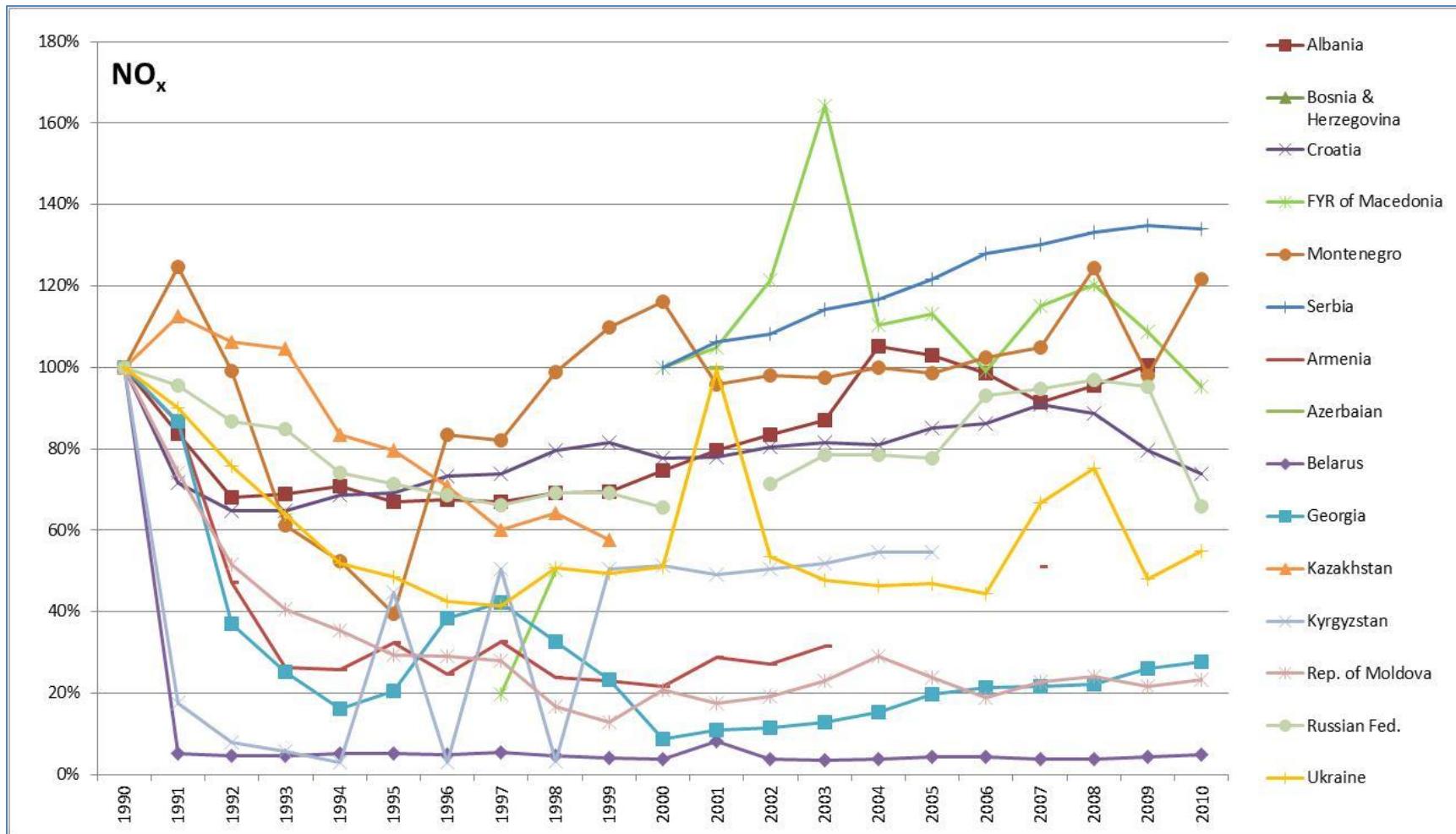
no reporting obligation	ISO	PARTY	Last submission Date EMEP	IIR 2012 or 2011	SO2 NOx CO NH3 NMVOC	Cd,Hg, Pb	PM2.5, PM10	TSP	POPs (PAH DIOX HCB)	Activity Data	
x	AL	Albania	31.05.2012	☒	1990 - 2009; 1990 - 2009	1990 - 2009; 1990 - 2009	1990 - 2009; 1990 - 2009	2005; 2008; 2009	1990 - 2009; 1990 - 2009		
x	AM	Armenia	26.04.2012		2007; 1981 - 2003; 2005; 2006; 2008 - 2010; 1980 - 2003; 2007	2007; 2005; 2006; 2008 - 2010; 1983 - 2000; 2002; 2003; 2007	2007; 2007	2007; 2005; 2006; 2008 - 2010; 2007	2007; 2007	2007	
x	AZ	Azerbaijan	14.01.2011		2003; 2005; 2000 - 2009; 2001			2006 - 2009			
	BY	Belarus	15.03.2012	☒	2007 - 2010; 1990 - 1995; 2001 - 2006; 1990; 1995 - 1999; 1990 - 1999; 2001 - 2010	2007 - 2010; 1990 - 2006; 2004 - 2006; 2004 - 2010	2007 - 2010; 2004 - 2006; 2002 - 2006; 2002 - 2010	2007 - 2010; 2004 - 2006; 1997 - 2000; 1990 - 2010	2007 - 2010; 1990 - 2006; 1997 - 2000; 1990 - 2010	2007; 2009; 2010	
x	BA	Bosnia & Herzegovina	20.04.1996		1990						
	HR	Croatia	19.04.2012	☒	1990 - 2010; 2001 - 2006; 1990 - 2004; 1980; 1990 - 2010	1990 - 2010; 2001 - 2006; 1990; 1995 - 2000; 1990 - 2010	1990 - 2010; 2001 - 2006; 1990 - 2004; 1990 - 2010	1990 - 2010; 2001 - 2006; 1990 - 2004; 1990 - 2010	1990 - 2010; 2001 - 2006; 1990; 1996 - 2000; 1990 - 2010	1990 - 2010; 2001 - 2006; 1990; 1995 - 2000; 2003 - 2007	
x	GE	Georgia	06.03.2012		2006; 2007; 2010; 1980 - 2010			2006; 2007; 2010; 2000 - 2010	2000 - 2006; 2000 - 2007		
x	KZ	Kazakhstan	05.02.2002		1990 - 2000			1990 - 2000			
x	KG	Kyrgyzstan	26.05.2009		1990 - 2005; 1990 - 2005	1992 - 1999; 1999			1992 - 1999; 1992 - 1999		
x	ME	Montenegro	18.06.2012		1990 - 2010; 1990 - 2010	1990 - 2010; 1990 - 2010	1990 - 2010; 1990 - 2010	2010; 2010	1990 - 2010; 1990 - 2010		

no reporting obligation	ISO	PARTY	Last submission Date EMEP	IIR 2012 or 2011	SO2 NOx CO NH3 NMVOC	Cd,Hg, Pb	PM2.5, PM10	TSP	POPs (PAH DIOX HCB)	Activity Data
	MD	Republic of Moldova	24.07.2012		2007 - 2010; 1990; 2000 - 2006; 1980; 1985; 1990 - 1999; 1980 - 2010	2007 - 2010; 1990; 2000 - 2006; 1990 - 1999; 1990 - 2010	2007 - 2010; 1990; 2000 - 2006; 1990 - 1999; 1990 - 2006; 2008; 2009	2007 - 2010; 1990; 2000 - 2006; 1990 - 1999; 1990 - 2006; 2008; 2009	2007 - 2010; 1990; 2000 - 2006; 1990 - 1999; 1990 - 2006; 2008; 2005	2007 - 2010; 2000;
x	MK	FYR of Macedonia	14.03.2012	②	2008 - 2010; 2001 - 2007; 1997; 1998; 1997; 1998; 2001 - 2010	1990 - 2010; 2001; 2002; 1990 - 2010	2010	2008 - 2010; 2003 - 2007; 2003 - 2010	2002; 2003; 2003	1996; 2008 - 2010; 2001 - 2007
	RU	Russian Federation	19.07.2012		2009; 2010; 2002 - 2008; 1990 - 2000; 1980 - 2000; 2002 - 2010	2009; 2002 - 2006; 1990 - 2000; 1990 - 2000; 2002 - 2006; 2009	2009; 2010; 2002 - 2008; 2002 - 2010	2009; 2010; 2002 - 2008; 2002 - 2010	2002; 1990 - 2000; 1990 - 2000	1990; 1995; 2000
x	RS	Serbia	19.06.2012	②	2000 - 2010; 2005 - 2007; 2000 - 2010	2000 - 2010; 2000 - 2010	2000 - 2010; 2000 - 2010	2000 - 2010; 2000 - 2010	2000 - 2010; 2000 - 2010	
	UA	Ukraine	15.02.2012	②	2008 - 2010; 2002 - 2007; 1990 - 1997; 2001; 1980 - 2010	2008 - 2010; 2002 - 2007; 2001; 2001 - 2010	2010; 2002; 2004; 2005; 2002; 2004; 2005; 2010	2008 - 2010; 2002 - 2007; 2001; 2001 - 2010	2010; 1997; 1998; 2010	2010
	XK	Kosovo	15.02.2012	②	2008 - 2010; 2008 - 2010	2008 - 2010; 2008 - 2010	2008 - 2010; 2008 - 2010	2008 - 2010; 2008 - 2010	2008 - 2010; 2008 - 2010	2008 - 2010;

Legend:

NFR09
NFR02
SNAP
National Total

Figure 1: Emission Trends of NOx in selected EECCA and West Balkan countries from 1990 - 2010

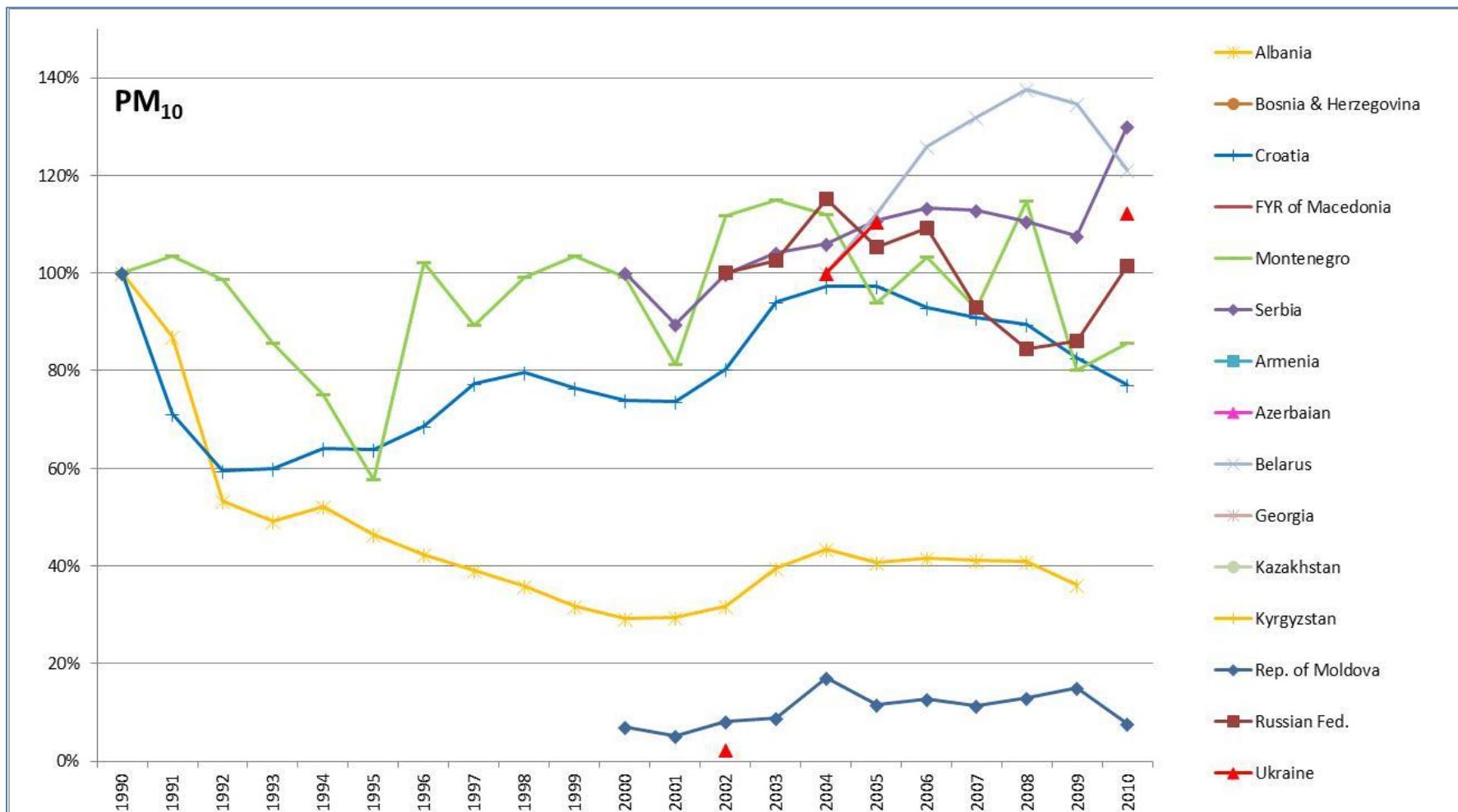


Note: Bosnia & Herzegovina did not report NOx.

Table 2: Emissions of NOx [Gg] in selected EEAAC and West Balkan countries from 1990 to 2010

Country / NOx [Gg]	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000		
Albania	24.0	20.1	16.3	16.5	17.0	16.0	16.2	16.1	16.6	16.6	17.9		
Armenia	46.2	40.0	21.8	12.1	11.9	14.9	11.4	15.1	11.0	10.6	10.0		
Azerbaijan													
Belarus	285.0	281.0	224.0	207.0	203.0	195.0	172.7	188.5	164.0	142.0	134.8		
Bosnia & Herzegovina													
Croatia	95.4	68.3	61.8	61.8	65.4	66.0	70.0	70.4	75.9	77.8	74.0		
FYR of Macedonia								6.0	15.2		30.4		
Georgia	129.5	112.5	47.8	32.5	20.8	26.6	49.6	54.5	42.4	30.1	11.1		
Kazakhstan	355.7	400.5	377.9	372.2	296.6	282.7	252.0	213.2	228.0	205.2	200.9		
Kyrgyzstan	115.2	20.0	8.9	6.5	3.3	51.3	3.5	58.2	3.6	58.1	59.1		
Montenegro	7.6	9.5	7.5	4.7	4.0	3.0	6.4	6.3	7.5	8.4	8.9		
Republic of Moldova	130.7	97.0	67.3	53.0	46.2	38.2	38.0	36.5	21.7	16.9	27.1		
Russian Federation	3,600.0	3,435.0	3,123.0	3,054.0	2,667.0	2,570.0	2,467.0	2,379.0	2,488.0	2,494.0	2,357.0		
Serbia											149.0		
Ukraine	1,097.0	989.0	830.0	700.0	568.0	531.0	467.0	455.2	557.5	542.5	561.1		
Country / NOx [Gg]	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Change 2009 - 2010	Change 2000 - 2010	Change 1990 - 2010
Albania	19.1	20.0	20.9	25.2	24.7	23.6	21.9	22.9	24.1				
Armenia	13.3	12.5	14.6				23.5						
Azerbaijan	43.2												
Belarus	134.8	136.7	140.1	147.6	170.9	187.4	181.5	188.8	189.2	170.1	-10%	26%	-40%
Bosnia & Herzegovina													
Croatia	74.4	76.7	77.7	77.4	81.2	82.1	86.8	84.7	75.9	70.5	-7%	-5%	-26%
FYR of Macedonia	31.9	36.9	49.9	33.6	34.4	30.2	35.0	36.6	33.1	29.0	-12%	-5%	
Georgia	14.1	14.8	16.4	19.7	25.5	27.6	28.1	28.5	33.8	35.7	6%	221%	-72%
Kazakhstan													
Kyrgyzstan	56.7	58.2	59.7	62.8	62.8								
Montenegro	7.3	7.5	7.4	7.6	7.5	7.8	8.0	9.5	7.5	9.3	24%	5%	22%
Republic of Moldova	22.8	25.0	30.1	38.0	31.0	24.8	29.8	31.6	28.4	30.5	7%	12%	-77%
Russian Federation		2,566.0	2,828.5	2,822.0	2,795.0	3,352.9	3,406.5	3,492.0	3,426.2	2,369.0	-31%	1%	-34%
Serbia	158.3	161.1	170.1	173.8	181.2	190.8	194.0	198.6	200.7	199.6	-1%	34%	
Ukraine	1,090.8	587.5	523.4	509.5	513.4	487.9	731.9	824.5	527.9	603.2	14%	7%	-45%

Figure 2: Emission Trends of PM₁₀ in selected EECCA and West Balkan countries from 1990 - 2010

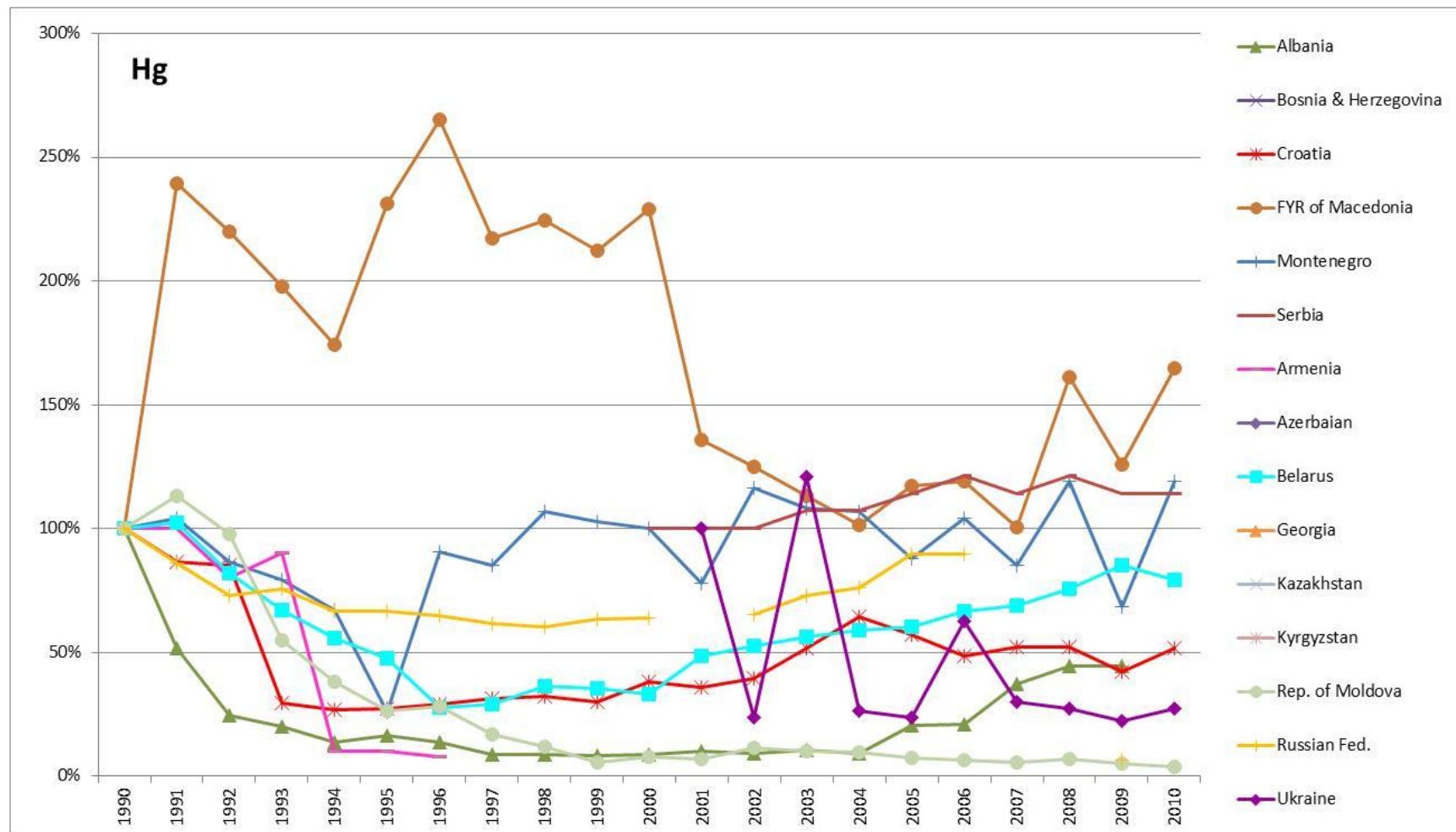


Note: Bosnia & Herzegovina, Armenia, Azerbaijan, Georgia, Kazakhstan and Kyrgyzstan did not report.

Table 3: Emissions of PM10 [Gg] in selected EEAAC and West Balkan countries from 1990 to 2010

Country / PM10 [Gg]	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000		
Albania	42.5	37.0	22.6	20.9	22.2	19.7	17.9	16.6	15.3	13.5	12.4		
Armenia													
Azerbaijan													
Belarus													
Bosnia & Herzegovina													
Croatia	17.9	12.7	10.6	10.7	11.4	11.4	12.3	13.9	14.2	13.7	13.2		
FYR of Macedonia													
Georgia													
Kazakhstan													
Kyrgyzstan													
Montenegro	8.5	8.8	8.4	7.3	6.4	4.9	8.7	7.6	8.4	8.8	8.4		
Republic of Moldova	65.3										4.5		
Russian Federation													
Serbia											35.7		
Ukraine													
Country / PM10 [Gg]	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Change 2009 - 2010	Change 2000 - 2010	Change 1990 - 2010
Albania	12.5	13.5	16.8	18.5	17.3	17.7	17.5	17.4	15.3				
Armenia							0.6						
Azerbaijan													
Belarus		NE	NE	48.0	53.8	60.5	63.3	66.1	64.6	58.2	-10%		
Bosnia & Herzegovina													
Croatia	13.2	14.4	16.9	17.4	17.4	16.6	16.3	16.0	14.8	13.8	-7%	4%	-23%
FYR of Macedonia			NE										
Georgia													
Kazakhstan													
Kyrgyzstan													
Montenegro	6.9	9.5	9.8	9.5	8.0	8.8	7.9	9.8	6.8	7.3	7%	-14%	-14%
Republic of Moldova	3.4	5.4	5.7	11.2	7.5	8.3	7.5	8.4	9.8	5.0	-49%	11%	-92%
Russian Federation		561.4	575.6	646.7	590.8	613.0	521.8	474.6	483.8	569.0	18%		
Serbia	31.9	35.7	37.2	37.8	39.5	40.4	40.3	39.5	38.4	46.4	21%	30%	
Ukraine	NO	2.9		118.5	131.2	NE		NA	NO	133.2			

Figure 3: Emission Trends of Hg in elected EECCA and West Balkan countries 1990 - 2010

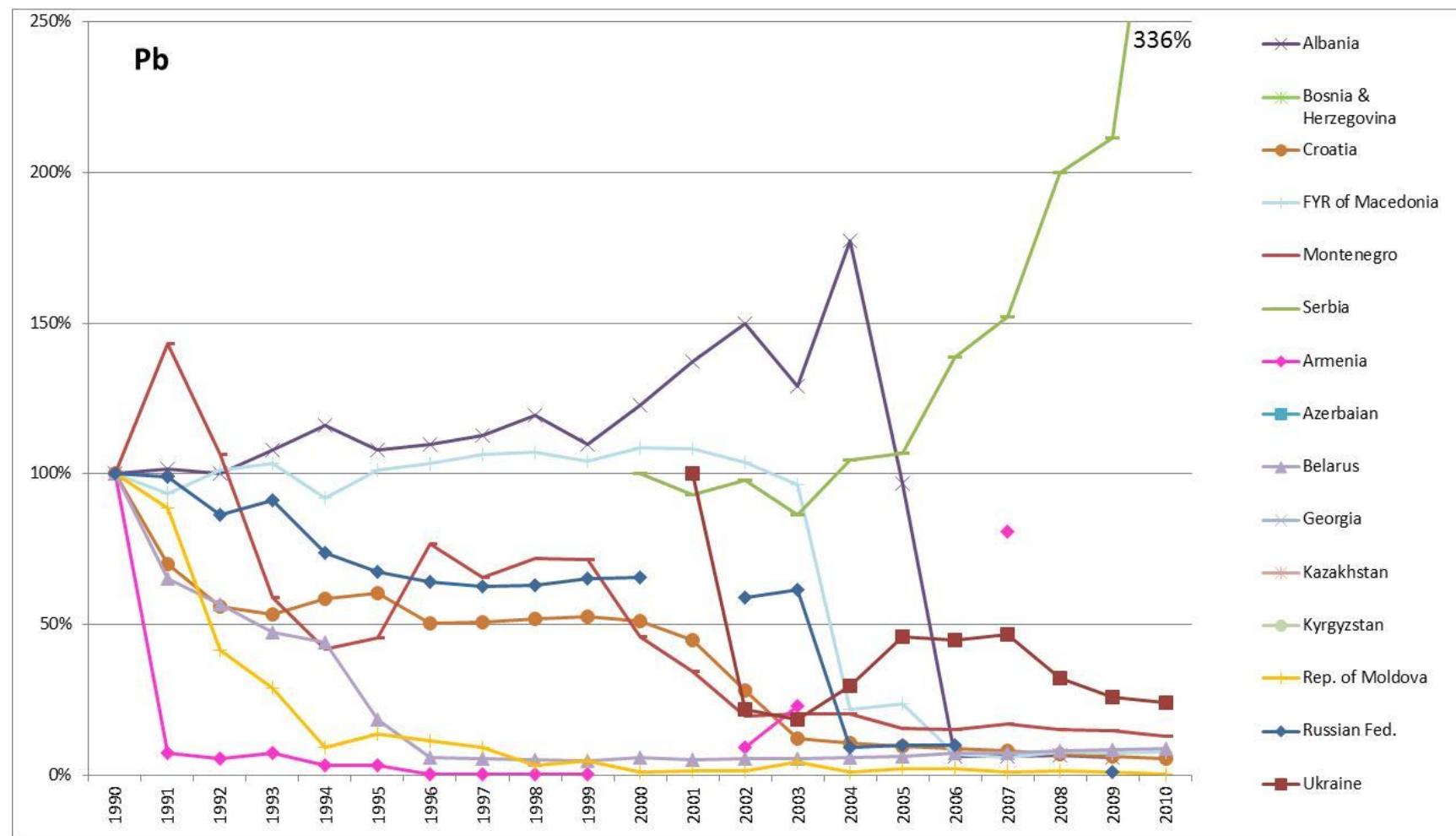


Note: Bosnia & Herzegovina, Azerbaijan, Georgia, Kazakhstan and Kyrgyzstan did not report.

Table 4: Emissions of Hg [Mg] in selected EEAAC and West Balkan countries from 1990 to 2010

Country / Hg [Mg]	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000		
Albania	0.270	0.140	0.066	0.054	0.037	0.044	0.037	0.023	0.023	0.022	0.024		
Armenia	0.010	0.010	0.008	0.009	0.001	0.001	0.001						
Azerbaijan													
Belarus	1.074	1.102	0.879	0.721	0.602	0.511	0.297	0.310	0.392	0.380	0.358		
Bosnia & Herzegovina													
Croatia	1.455	1.261	1.241	0.429	0.392	0.396	0.422	0.455	0.469	0.437	0.554		
FYR of Macedonia	0.239	0.572	0.525	0.472	0.417	0.552	0.633	0.519	0.537	0.507	0.547		
Georgia													
Kazakhstan													
Kyrgyzstan													
Montenegro	0.073	0.076	0.063	0.058	0.049	0.019	0.066	0.062	0.078	0.075	0.073		
Republic of Moldova	3.371	3.810	3.290	1.849	1.287	0.894	0.954	0.571	0.406	0.180	0.259		
Russian Federation	15.600	13.400	11.400	11.800	10.400	10.400	10.100	9.600	9.400	9.900	10.000		
Serbia											1.400		
Ukraine													
Country / Hg [Mg]	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Change 2009 - 2010	Change 2000 - 2010	Change 1990 - 2010
Albania	0.027	0.025	0.029	0.025	0.055	0.056	0.100	0.120	0.120				
Armenia							0.348						
Azerbaijan													
Belarus	0.522	0.565	0.603	0.632	0.649	0.716	0.741	0.814	0.914	0.854	-7%	139%	-21%
Bosnia & Herzegovina													
Croatia	0.524	0.573	0.755	0.938	0.829	0.707	0.757	0.756	0.615	0.750	22%	35%	-48%
FYR of Macedonia	0.324	0.298	0.270	0.242	0.280	0.285	0.240	0.385	0.301	0.394	31%	-28%	65%
Georgia													
Kazakhstan													
Kyrgyzstan													
Montenegro	0.057	0.085	0.079	0.078	0.064	0.076	0.062	0.087	0.050	0.087	74%	19%	19%
Republic of Moldova	0.226	0.392	0.340	0.323	0.244	0.217	0.190	0.240	0.170	0.120	-29%	-54%	-96%
Russian Federation		10.200	11.400	11.900	14.000	14.000			0.980	NE			
Serbia	1.400	1.400	1.500	1.500	1.600	1.700	1.600	1.700	1.600	1.600	0%	14%	
Ukraine	25.051	5.905	30.313	6.592	5.961	15.650	7.558	6.791	5.622	6.788	21%		

Figure 4: Emission Trends of Pb in selected EECCA and West Balkan countries 1990 - 2010

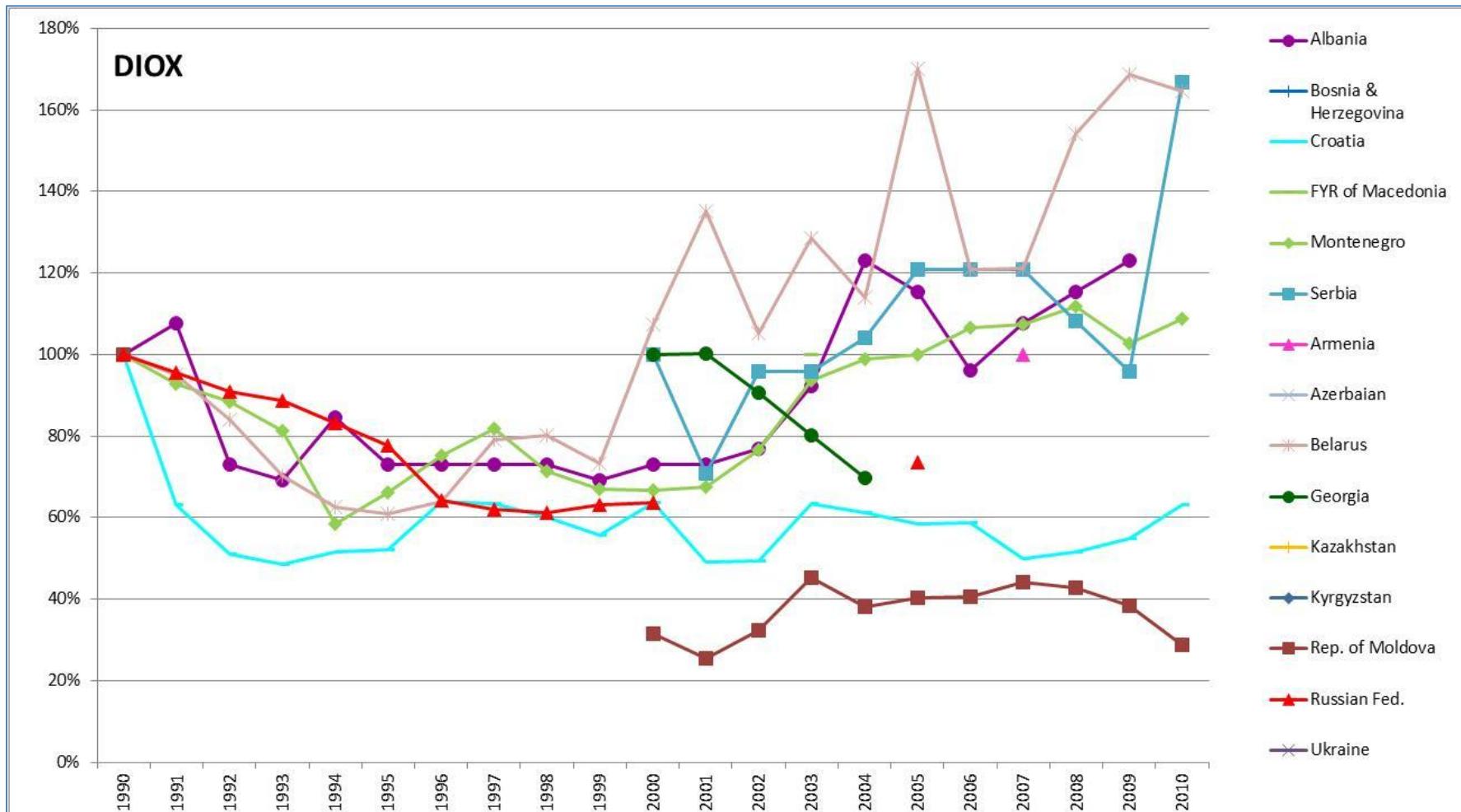


Note: Bosnia & Herzegovina, Azerbaijan, Georgia, Kazakhstan and Kyrgyzstan did not report.

Table 5: Emissions of Pb [Mg] in selected EEAAC and West Balkan countries from 1990 to 2010

Country / Pb [Mg]	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Albania	62.00	63.00	62.00	67.00	72.00	67.00	68.00	70.00	74.00	68.00	76.00
Armenia	11.00	0.82	0.61	0.79	0.34	0.33	0.01	0.01	0.01	0.01	
Azerbaijan											
Belarus	794.12	518.66	449.68	377.12	348.42	146.96	46.34	42.20	41.24	37.52	46.12
Bosnia & Herzegovina											
Croatia	536.11	376.24	300.66	285.22	313.88	323.03	270.02	272.22	277.33	281.19	273.44
FYR of Macedonia	96.31	89.95	97.47	99.71	88.65	97.63	99.76	102.57	103.21	100.47	104.80
Georgia											
Kazakhstan											
Kyrgyzstan											
Montenegro	308.99	442.57	328.93	182.31	128.92	140.66	236.77	202.69	222.46	221.45	141.97
Republic of Moldova	248.55	220.26	102.57	71.20	23.16	33.90	27.90	22.36	7.90	11.21	2.82
Russian Federation	3,591.00	3,553.00	3,095.00	3,276.00	2,643.00	2,426.00	2,304.00	2,247.00	2,262.00	2,339.00	2,352.00
Serbia											44.00
Ukraine											
Country / Pb [Mg]	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Change
Albania	85.00	93.00	80.00	110.00	60.00	3.90	3.80	4.00	3.70		
Armenia		1.00	2.50				8.88				
Azerbaijan											
Belarus	40.68	43.82	43.42	44.88	50.14	56.78	58.99	63.08	65.78	69.95	6% 52%
Bosnia & Herzegovina											
Croatia	239.46	150.04	64.87	57.46	51.02	46.06	42.08	37.74	33.30	28.24	-15% -90% -95%
FYR of Macedonia	104.33	100.14	92.73	21.09	22.76	6.74	5.65	7.25	7.12	7.48	5% -93% -92%
Georgia											
Kazakhstan											
Kyrgyzstan											
Montenegro	106.61	60.10	62.74	63.04	47.52	46.28	52.20	46.83	45.44	40.00	-12% -72% -87%
Republic of Moldova	3.35	3.28	10.55	2.28	5.06	4.98	2.20	3.30	2.30	1.00	-57% -65% -100%
Russian Federation		2,118.00	2,207.00	330.00	355.00	355.00			32.11	NE	
Serbia	41.00	43.00	38.00	46.00	47.00	61.00	67.00	88.00	93.00	148.00	59% 236%
Ukraine	663.08	144.52	123.00	194.88	304.38	296.62	308.67	213.18	171.13	159.13	-7%

Figure 5: Emission Trends of DIOX in selected EECCA and West Balkan countries 1990 - 2010



Note: Bosnia & Herzegovina, Armenia, Azerbaijan, Ukraine, Kazakhstan and Kyrgyzstan did not report.

Table 6: Emissions of DIOX [g] in selected EEAAC and West Balkan countries from 1990 to 2010

Country / DIOX [g]	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000		
Albania	26.0	28.0	19.0	18.0	22.0	19.0	19.0	19.0	19.0	18.0	19.0		
Armenia													
Azerbaijan													
Belarus	22.1	21.1	18.6	15.6	13.9	13.5	14.2	17.5	17.8	16.3	23.8		
Bosnia & Herzegovina													
Croatia	148.5	94.0	76.0	72.1	76.4	77.3	95.1	94.1	89.4	82.7	94.7		
FYR of Macedonia													
Georgia											121.9		
Kazakhstan													
Kyrgyzstan													
Montenegro	2.6	2.4	2.3	2.1	1.5	1.7	1.9	2.1	1.8	1.7	1.7		
Republic of Moldova	13.6										4.3		
Russian Federation	991.0	947.0	901.0	878.0	825.0	769.0	637.0	614.0	606.0	625.0	631.0		
Serbia											24.0		
Ukraine													
Country / DIOX [g]	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Change 2009 - 2010	Change 2000 - 2010	Change 1990 - 2010
Albania	19.0	20.0	24.0	32.0	30.0	25.0	28.0	30.0	32.0				
Armenia		NE					2.8						
Azerbaijan													
Belarus	30.0	23.3	28.5	25.3	37.7	26.8	26.8	34.2	37.4	36.5	-2%	53%	65%
Bosnia & Herzegovina													
Croatia	72.8	73.4	94.2	91.1	86.9	87.3	74.0	76.6	81.7	93.6	15%	-1%	-37%
FYR of Macedonia			162.9	NE									
Georgia	122.2	110.5	97.7	84.9	NE	NE	NE	NE	NE	NE			
Kazakhstan													
Kyrgyzstan													
Montenegro	1.7	2.0	2.4	2.5	2.6	2.7	2.8	2.9	2.6	2.8	6%	63%	9%
Republic of Moldova	3.5	4.4	6.1	5.2	5.5	5.5	6.0	5.8	5.2	3.9	-25%	-8%	-71%
Russian Federation					730.0				NE	NE			
Serbia	17.0	23.0	23.0	25.0	29.0	29.0	29.0	26.0	23.0	40.0	74%	67%	
Ukraine						NE				NA			