CLIMATE VULNERABILITY MONITOR







COUNTRY PROFILE

RUSSIA







THE MONITOR ASSESSMENT

The Climate Vulnerability Monitor provides a comprehensive national-level assessment of vulnerabilities and impact specifically related to contemporary climate change and carbon intensiveness. This 2012 Monitor assessment was commissioned by the Climate Vulnerable Forum and has been independently developed by DARA. It is grounded in leading and up-to-date scientific studies, research and data assimilated on the basis of an externally reviewed methodology. The assessment spans 34 indicators of impact/vulnerability: 22 for climate change ("Climate") and 12 for carbon intensiveness ("Carbon"). Estimates in human, economic and environmental terms are for 2010 and 2030. Vulnerability at country-level and by indicator is comparative to the 184 countries included in the assessment.

→ For the full report, data & additional info: www.daraint.org/cvm2 - cvm@daraint.org - +34 915310372



ECONOMIC NATIONAL LOSS TOTALS: RUSSIA ADDITIONAL ECONOMIC COSTS (NEGATIVE NUMBERS SHOW POSITIVE EFFECTS) - YEARLY AVERAGE

CLIMAIE CHANGE

2010 **0.7%**_{GDP} 2030 **0.8%**_{GDP}

CARBON INTENSIVENESS

2010 **1.0%**_{GDP} 2030 **1.6%**_{GDP}



HUMAN NATIONAL LOSS TOTALS: RUSSIA

ADDITIONAL HUMAN IMPACTS (NEGATIVE NUMBERS SHOW POSITIVE EFFECTS) - YEARLY AVERAGE

ADDITIONAL MORTALITY-YEARLY AVERAGE

CLIMATE +CARBON

2010 100,000 2030 80,000

👀 CLIMATE

🔊 CARBON

ADDITIONAL PERSONS AFFECTED-YEARLY AVERAGE

2010 7,000,000 2030 12,000,000

2010 1,450,000 2030 1,350,000

FULL COUNTRY ASSESSMENT: RUSSIA

				ADDITIONAL ECONOMIC COSTS (MILLION USD PPP)		ADDITIONAL MORTALITY		ADDITIONAL AFFECTED POPULATION (1000s)		OTHER VALUE 1*		OTHER VALUE 2*		_			
			2010 2030	2010	2030	2010	2030	2010	2030	2010	2030	2010	2030	_			
	- 1	ENVIRONMENTAL DISASTERS												VULNERABIL	.ITY LEVELS:		
4	_	DROUGHT	- +	90	400									+ Acute+	+ High+	-	
	<u>△</u>	FLOODS AND LANDSLIDES		75	550	10	5	35	25					- Acute-	- High-		
	₩/	STORMS		1	10	-1	-5	0	0					+ Severe+	Mode	cato	
		WILDFIRES	+ -	5	40									_	_	rate	
	- 1	TOTAL		171	1,000	9	0	34	24					- Severe-	Low		
		HABITAT CHANGE															
•		BIODIVERSITY		3,250	25,000					-70,000	-150,000	10	30	+ = Upper tier	of vulnerabilit	y level	
		DESERTIFICATION	-	200	1,250			25	50	3,250	6,250			 = Lower tier of vulnerability level 			
		HEATING AND COOLING		-2,250	-15,000					-20,000	-45,000	-15,000	-25,000				
		LABOUR PRODUCTIVITY		-2,000	-15,000					6	6			Environmental disasters			
		PERMAFROST	- +	15,000	75,000			4,500	9,500								
		SEA-LEVEL RISE		3,000	10,000			1	1	400	1,000			Habitat ch	ange		
اسر		WATER		-2,500	-15,000			4 = 0.0	0.554	-5	-10			■ Health impact			
CLIMATE	- 1	TOTAL		14,700	66,250			4,526	9,551					Industry st			
\leq		HEALTH IMPACT				_	_	_						y industry st	11622		
ات		DIARRHEAL INFECTIONS				5	0	0						♠			
		HEAT AND COLD ILLNESSES	- +			2,250	3,000							CLIMATE = Impact/Vulnerability			
	Ў	HUNGER							•						to Climate Cha	nge	
		MALARIA AND VECTOR-BORNE				1 200	200	0	0					CARBON =			
		MENINGITIS TOTAL				2.456	3.201	0	1						to Carbon Inter	nsiveness	
	i	INDUSTRY STRESS				2,456	3,201	U									
6		AGRICULTURE		400	2.750										OTHER	OTHER	
	X	FISHERIES		-1,250	-8,250										VALUE 1	VALUE 2	
		FORESTRY		150	850										Contraction	Decline in	
1	\mathcal{L}	HYDRO ENERGY		-300	-1,500									BIODIVERSITY	of biological zones (km²)	biological	
		TOURISM		-65	-500										(cumulative)	richness	
		TRANSPORT		00	500									DESERTI-	Additional land		
		TOTAL		-1,065	-6,650									FICATION	degraded (km²) (cumulative)		
		CLIMATE TOTAL		13,806	60,600	2,464	3,201	4,562	9,577						(cumulative)		
				.,	,			,	,					HEATING &	Change in ener load (GWh)	gy	
	_	ENVIRONMENTAL DISASTERS												COOLING	toad (GWII)		
(OIL SANDS		50	350					700	1,250				Share of		
	₩	OIL SPILLS		300	1,000					1,500	1,750			LABOUR PRODUCTIVITY	workforce particularly		
	- 1	TOTAL		350	1350									T KODOG IIVIII	affected (%)		
		HABITAT CHANGE												SEA-LEVEL	Net loss of		
1		BIODIVERSITY	-	15,000	100,000					40	100			- RISE	land (km²)		
16		CORROSION	- +	60	250					4 = 0.0	= 0=0				(cumulative)		
		WATER		100	500					4,500	5,250			WATER	Loss in water runoff 2030		
CARBON	i	TOTAL		15160	100750									1	(km³)		
		HEALTH IMPACT				CF 000	70.000	000	1 000						Tonnes toxic		
		AIR POLLUTION INDOOR SMOKE	+ +			65,000 30.000	70,000	900 200	1,000 15					OILSANDS	waste (1000s)		
10		OCCUPATIONAL HAZARDS				1,500	1,500	350	350								
	_	SKIN CANCER	+ +			850	1,500	1	3					OIL SPILLS	Gallons oil		
		TOTAL	+ -			97350	75750	1451	1368						spill (1000s)		
	i	INDUSTRY STRESS				91330	13130	1401	1300					Decline in			
		AGRICULTURE	+ +	1,500	4,750									BIODIVERSITY	biological richn	ess	
10		FISHERIES	T T	1,000	4,700												
`		FORESTRY		450	1.750									WATER	Volume of water to treat		
		TOTAL		1950	6500										(millions m³)		
		CARBON TOTAL		17,460	108,600	97,350	75,750	1,451	1,368					i .			