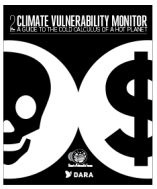
CLIMATE VULNERABILITY MONITOR

DARA

Climate Vulnerable Forum



COUNTRY PROFILE

KYRGYZSTAN

CLIMATE: HIGH CARBON: MODERATE

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: KYRGYZSTAN

ADDITIONAL ECONOMIC COSTS (NEGATIVE NUMBERS SHOW POSITIVE EFFECTS) - YEARLY AVERAGE

CLIMATE CHANGE IMPACT

LOSSES PER YEAR

2010 **4.2%GDP**
2030 **6.0%GDP**

CARBON INTENSIVENESS IMPACT

LOSSES PER YEAR

2010 **0.7%GDP**
2030 **0.3%GDP**

HUMAN NATIONAL LOSS TOTALS: KYRGYZSTAN

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

CLIMATE +CARBON COMBINED

ADDITIONAL MORTALITY-YEARLY AVERAGE

2010 **4,000**
2030 **4,500**

CLIMATE

CARBON

ADDITIONAL PERSONS AFFECTED-YEARLY AVERAGE

CLIMATE: 2010 **500,000** 2030 **950,000**

CARBON: 2010 **150,000** 2030 **150,000**

FULL COUNTRY ASSESSMENT: KYRGYZSTAN

		VULNERABILITY LEVEL		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
CLIMATE	**ENVIRONMENTAL DISASTERS**												
	DROUGHT												
	FLOODS AND LANDSLIDES	-	+	5	35	1	1	9	15				
	STORMS												
	WILDFIRES												
	TOTAL			5	35	1	1	9	15				
	HABITAT CHANGE												
	BIODIVERSITY	+	+	90	600					-1,250	-2,500	60	150
	DESERTIFICATION												
	HEATING AND COOLING			-10	-75					-250	-400	-20	-40
	LABOUR PRODUCTIVITY			5	25					36	27		
	PERMAFROST	+	+	400	1,750			450	850				
	SEA-LEVEL RISE												
	WATER	-	+	40	300					1	1		
	TOTAL			525	2,600			450	850				
	HEALTH IMPACT												
	DIARRHEAL INFECTIONS					15	5	0					
	HEAT AND COLD ILLNESSES	-	-			60	75						
	HUNGER												
	MALARIA AND VECTOR-BORNE												
	MENINGITIS	-	-			20	30	0	0				
	TOTAL					95	110	0	0				
	INDUSTRY STRESS												
	AGRICULTURE	-	+	15	100								
	FISHERIES												
	FORESTRY			1	5								
	HYDRO ENERGY			-40	-250								
	TOURISM												
	TRANSPORT												
	TOTAL			-25	-145								
	CLIMATE TOTAL			**506**	**2,490**	**96**	**111**	**459**	**865**				
CARBON	**ENVIRONMENTAL DISASTERS**												
	OIL SANDS												
	OIL SPILLS												
	TOTAL			0	0								
	HABITAT CHANGE												
	BIODIVERSITY			25	150					15	50		
	CORROSION												
	WATER												
	TOTAL			25	150								
	HEALTH IMPACT												
	AIR POLLUTION	+	-			650	950	6	10				
	INDOOR SMOKE	-	-			3,250	3,750	150	150				
	OCCUPATIONAL HAZARDS	+	-			35	35	1	1				
	SKIN CANCER		-			5	15	0	0				
	TOTAL					3940	4750	157	161				
	INDUSTRY STRESS												
	AGRICULTURE			-5	-250								
	FISHERIES												
	FORESTRY												
	TOTAL			-5	-250								
	CARBON TOTAL			**20**	**-100**	**3,940**	**4,750**	**157**	**161**				

VULNERABILITY LEVELS:

+ Acute+	+ High+
- Acute-	- High-
+ Severe+	Moderate
- Severe-	Low

+ = Upper tier of vulnerability level
- = Lower tier of vulnerability level

Environmental disasters
Habitat change
Health impact
Industry stress

CLIMATE = Impact/Vulnerability to Climate Change

CARBON = Impact/Vulnerability to Carbon Intensiveness

	OTHER VALUE 1	OTHER VALUE 2
BIODIVERSITY	Contraction of biological zones (km^2) (cumulative)	Decline in biological richness
DESERTIFICATION	Additional land degraded (km^2) (cumulative)	
HEATING & COOLING	Change in energy load (GWh)	
LABOUR PRODUCTIVITY	Share of workforce particularly affected (%)	
SEA-LEVEL RISE	Net loss of land (km^2) (cumulative)	
WATER	Loss in water runoff 2030 (km^3)	
OIL SANDS	Tonnes toxic waste (1000s)	
OIL SPILLS	Gallons oil spill (1000s)	
BIODIVERSITY	Decline in biological richness	
WATER	Volume of water to treat (millions m^3)	