CLIMATE VULNERABILITY MONITOR

DARA

Climate Vulnerable Forum

COUNTRY PROFILE

MONGOLIA

CLIMATE: HIGH CARBON: HIGH

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: MONGOLIA

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

CLIMATE CHANGE IMPACT

LOSSES PER YEAR

2010 **6.5%GDP**

2030 **8.4%GDP**

CARBON INTENSIVENESS IMPACT

LOSSES PER YEAR

2010 **1.9%GDP**

2030 **3.4%GDP**

HUMAN NATIONAL LOSS TOTALS: MONGOLIA

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

CLIMATE +CARBON COMBINED

ADDITIONAL MORTALITY-YEARLY AVERAGE

2010 **1,500**

2030 **1,500**

ADDITIONAL PERSONS AFFECTED-YEARLY AVERAGE

CLIMATE — 2010 **550,000** — 2030 **1,000,000**

CARBON — 2010 **25,000** — 2030 **25,000**

FULL COUNTRY ASSESSMENT: MONGOLIA

		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				1								
	FLOODS AND LANDSLIDES				1	1		4	3				
	STORMS												
	WILDFIRES	+	+	1	15								
	TOTAL			1	17	1	0	4	3				
	HABITAT CHANGE												
	BIODIVERSITY	+	+	150	1,500					-3,000	-6,250	20	70
	DESERTIFICATION												
	HEATING AND COOLING			-40	-450					-350	-750	-500	-1,000
	LABOUR PRODUCTIVITY			-15	-150					34	26		
	PERMAFROST	+	+	600	4,000			550	1,000				
	SEA-LEVEL RISE												
	WATER			-1	-10								
	TOTAL			694	4,890			550	1,000				
	HEALTH IMPACT												
	DIARRHEAL INFECTIONS					5	0	0					
	HEAT AND COLD ILLNESSES	-	-			15	10						
	HUNGER					5	15	0	0				
	MALARIA AND VECTOR-BORNE												
	MENINGITIS	-	-			10	10	0	0				
	TOTAL					35	35	0	0				
	INDUSTRY STRESS												
	AGRICULTURE			1	15								
	FISHERIES												
	FORESTRY		+	1	30								
	HYDRO ENERGY												
	TOURISM			-1	-5								
	TRANSPORT												
	TOTAL			2	40								
	CLIMATE TOTAL			**696**	**4,946**	**35**	**35**	**554**	**1,003**				
CARBON	**ENVIRONMENTAL DISASTERS**												
	OIL SANDS												
	OIL SPILLS												
	TOTAL			0	0								
	HABITAT CHANGE												
	BIODIVERSITY	-	-	150	1,750					25	95		
	CORROSION												
	WATER												
	TOTAL			150	1750								
	HEALTH IMPACT												
	AIR POLLUTION	+	-			600	750	4	6				
	INDOOR SMOKE	-	-			650	650	20	20				
	OCCUPATIONAL HAZARDS	-	-			20	25	0	0				
	SKIN CANCER		-			5	10	0	0				
	TOTAL					1275	1435	24	26				
	INDUSTRY STRESS												
	AGRICULTURE	+	+	5	60								
	FISHERIES												
	FORESTRY			1	5								
	TOTAL			5.5	65								
	CARBON TOTAL			**155**	**1,815**	**1,275**	**1,435**	**24**	**26**				

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)	