CLIMATE VULNERABILITY MONITOR

DARA

Climate Vulnerable Forum

COUNTRY PROFILE

NORTH KOREA

CLIMATE: **ACUTE** 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: NORTH KOREA

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

CLIMATE CHANGE IMPACT

LOSSES PER YEAR

2010 **7.0%**GDP
2030 **10.8%**GDP

CARBON INTENSIVENESS IMPACT

LOSSES PER YEAR

2010 **0.2%**GDP
2030 **0.3%**GDP

HUMAN NATIONAL LOSS TOTALS: NORTH KOREA

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

CLIMATE +CARBON COMBINED

ADDITIONAL MORTALITY-YEARLY AVERAGE

2010 **9,500**
2030 **10,000**

ADDITIONAL PERSONS AFFECTED-YEARLY AVERAGE

CLIMATE — 2010 **1,550,000** 2030 **1,600,000**

CARBON — 2010 **100,000** 2030 **200,000**

FULL COUNTRY ASSESSMENT: NORTH KOREA

		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	10								
	FLOODS AND LANDSLIDES	+	+	550	6,750	10	10	100	85				
	STORMS	+	+	550	5,750			2	0				
	WILDFIRES												
	TOTAL			1,101	12,510	10	10	102	84				
	HABITAT CHANGE												
	BIODIVERSITY			15	150					-1,750	-3,500	40	100
	DESERTIFICATION			-1	-10			-20	-45	-100	-200		
	HEATING AND COOLING			-150	-1,250					-1,250	-2,250	-650	-1,250
	LABOUR PRODUCTIVITY			90	900					37	26		
	PERMAFROST												
	SEA-LEVEL RISE	+	+	1,750	10,000			1	1	10	30		
	WATER			-20	-200					-1	-1		
	TOTAL			1,684	9,590			-18	-43				
	HEALTH IMPACT												
	DIARRHEAL INFECTIONS					60	100	0					
	HEAT AND COLD ILLNESSES	+	+			150	300						
	HUNGER	+	+			1,750	2,500	2	2				
	MALARIA AND VECTOR-BORNE												
	MENINGITIS	-	-			90	100	0	0				
	TOTAL					2,050	3,000	2	2				
	INDUSTRY STRESS												
	AGRICULTURE			10	100								
	FISHERIES		-	20	300								
	FORESTRY			1	5								
	HYDRO ENERGY			-25	-200								
	TOURISM			-15	-150								
	TRANSPORT												
	TOTAL			-10	55								
	CLIMATE TOTAL			**2,776**	**22,155**	**2,060**	**3,010**	**85**	**43**				
CARBON	**ENVIRONMENTAL DISASTERS**												
	OIL SANDS												
	OIL SPILLS												
	TOTAL			0	0								
	HABITAT CHANGE												
	BIODIVERSITY			15	150					35	100		
	CORROSION	-	+		1								
	WATER				1					20	30		
	TOTAL			15	151.5								
	HEALTH IMPACT												
	AIR POLLUTION	-	+			6,250	7,250	85	150				
	INDOOR SMOKE					650	600	2	2				
	OCCUPATIONAL HAZARDS	-	+			200	300	30	40				
	SKIN CANCER		-			45	90	0	0				
	TOTAL					7145	8240	117	192				
	INDUSTRY STRESS												
	AGRICULTURE	-		5	-55								
	FISHERIES	-	+	10	100								
	FORESTRY				1								
	TOTAL			15	46								
	CARBON TOTAL			**30**	**197**	**7,145**	**8,240**	**117**	**192**				

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
DESERTI-FICATION	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)	