

COUNTRY PROFILE

CHINA

CLIMATE: **MODERATE**

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: CHINA

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

CLIMATE CHANGE IMPACT

LOSSES PER YEAR

2010	0.7%_{GDP}
2030	1.3%_{GDP}

CARBON INTENSIVENESS IMPACT

LOSSES PER YEAR

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

HUMAN NATIONAL LOSS TOTALS: CHINA

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

CLIMATE + CARBON COMBINED

ADDITIONAL MORTALITY-YEARLY AVERAGE

2010	1,400,000
2030	1,650,000

CLIMATE

ADDITIONAL PERSONS AFFECTED-YEARLY AVERAGE

2010		2030	58,900,000
	51,850,000		

CARBON

2010		2030	58,650,000
	55,000,000		

FULL COUNTRY ASSESSMENT: CHINA

	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	-	-	800	6,250									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
	FLOODS AND LANDSLIDES	-	+	4,500	50,000	200	150	2,000	1,500					
	STORMS	-	-	4,750	50,000	1	-5	100	-250					
	WILDFIRES	-	-											
	TOTAL			10,050	106,250	201	145	2,100	1,250					
	HABITAT CHANGE													
	BIODIVERSITY	-	-	4,250	45,000					-60,000	-100,000	60	150	
	DESERTIFICATION	-	-	75	750			300	600	2,000	4,000			
	HEATING AND COOLING	-	-	-2,750	-20,000					-60,000	-80,000	-50,000	-65,000	
	LABOUR PRODUCTIVITY	-	-	40,000	450,000					36	25			
	PERMAFROST	-	-	9,250	65,000			4,500	9,500					
	SEA-LEVEL RISE	-	-	15,000	150,000			40	45	250	350			
	WATER	-	-	-5,750	-60,000					-30	-55			
	TOTAL			60,075	630,750			4,840	10,145					
HEALTH IMPACT														
DIARRHEAL INFECTIONS	-	-			550	0	3							
HEAT AND COLD ILLNESSES	-	-			-5,500	-15,000								
HUNGER	-	-			1,750	2,750	7	10						
MALARIA AND VECTOR-BORNE	-	-			50	80	25	45						
MENINGITIS	-	-			800	850	2	2						
TOTAL					-2,350	-11,320	37	57						
INDUSTRY STRESS														
AGRICULTURE	-	-	5,500	55,000										
FISHERIES	-	-	1,500	15,000										
FORESTRY	-	-	60	650										
HYDRO ENERGY	-	-	-2,250	-20,000										
TOURISM	-	-	-3,500	-40,000										
TRANSPORT	-	-												
TOTAL			1,310	10,650										
CLIMATE TOTAL			71,435	747,650	-2,149	-11,175	6,977	11,452						
CARBON	ENVIRONMENTAL DISASTERS													
	OIL SANDS	-	-		95						200			
	OIL SPILLS	-	-	60	350					600	650			
	TOTAL			60	445									
	HABITAT CHANGE													
	BIODIVERSITY	-	-	20,000	200,000					300	900			
	CORROSION	+	+	400	2,250									
	WATER	-	-	45	300					3,250	3,750			
	TOTAL			20445	202550									
	HEALTH IMPACT													
	AIR POLLUTION	+	+			500,000	800,000	4,500	8,000					
	INDOOR SMOKE	+	+			850,000	850,000	50,000	50,000					
	OCCUPATIONAL HAZARDS	+	+			15,000	25,000	500	650					
	SKIN CANCER	+	-			2,000	4,250	3	7					
	TOTAL					1367000	1679250	55003	58657					
INDUSTRY STRESS														
AGRICULTURE	-	-	1,250	-80,000										
FISHERIES	+	+	6,500	65,000										
FORESTRY	-	+	3,500	20,000										
TOTAL			11250	5000										
CARBON TOTAL			31,755	207,995	1,367,000	1,679,250	55,003	58,657						

	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)	