CLIMATE VULNERABILITY MONITOR

DARA

Climate Vulnerable Forum

COUNTRY PROFILE

MEXICO

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: MEXICO

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

CLIMATE CHANGE IMPACT

LOSSES PER YEAR

2010 **3.1%GDP**
2030 **6.1%GDP**

CARBON INTENSIVENESS IMPACT

LOSSES PER YEAR

2010 **0.7%GDP**
2030 **1.2%GDP**

HUMAN NATIONAL LOSS TOTALS: MEXICO

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

CLIMATE +CARBON COMBINED

ADDITIONAL MORTALITY-YEARLY AVERAGE

2010 **25,000**
2030 **40,000**

CLIMATE

ADDITIONAL PERSONS AFFECTED-YEARLY AVERAGE

2010 **2,000,000** 2030 **3,450,000**

CARBON

2010 **750,000** 2030 **1,100,000**

FULL COUNTRY ASSESSMENT: MEXICO

		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	+	+	95	600								
	FLOODS AND LANDSLIDES			55	500	10	10	40	40				
	STORMS			150	1,250	10	15	70	85				
	WILDFIRES		-										
	TOTAL			300	2,350	20	25	110	125				
	HABITAT CHANGE												
	BIODIVERSITY	-	-	2,500	20,000					-50,000	-100,000	250	800
	DESERTIFICATION	+	-	600	4,500			600	1,500	10,000	20,000		
	HEATING AND COOLING		-	600	10,000					6,250	30,000	3,000	15,000
	LABOUR PRODUCTIVITY	+	+	35,000	250,000					39	30		
	PERMAFROST												
	SEA-LEVEL RISE			2,250	15,000			1	1	1,000	2,000		
	WATER	+	-	4,000	30,000					20	35		
	TOTAL			44,950	329,500			601	1,501				
	HEALTH IMPACT												
	DIARRHEAL INFECTIONS					0	0	0					
	HEAT AND COLD ILLNESSES					150	95						
	HUNGER		-			1,000	1,750	2	4				
	MALARIA AND VECTOR-BORNE					1	5	0	1				
	MENINGITIS					30	45	0	0				
	TOTAL					1,181	1,895	3	5				
	INDUSTRY STRESS												
	AGRICULTURE		-	1,250	7,750								
	FISHERIES			100	950								
	FORESTRY	+	-	1,000	7,750								
	HYDRO ENERGY			-60	-350								
	TOURISM												
	TRANSPORT	+	+	75	950								
	TOTAL			2,365	17,050								
	CLIMATE TOTAL			**47,615**	**348,900**	**1,201**	**1,920**	**714**	**1,632**				
CARBON	**ENVIRONMENTAL DISASTERS**												
	OIL SANDS												
	OIL SPILLS			5	25					40	45		
	TOTAL			5	25								
	HABITAT CHANGE												
	BIODIVERSITY		-	8,000	60,000					850	2,500		
	CORROSION	-	-	15	35								
	WATER												
	TOTAL			8015	60035								
	HEALTH IMPACT												
	AIR POLLUTION	-	-			15,000	20,000	200	300				
	INDOOR SMOKE					9,500	15,000	500	750				
	OCCUPATIONAL HAZARDS	-	-			250	350	25	30				
	SKIN CANCER	-	-			400	950	0	1				
	TOTAL					25150	36300	725	1081				
	INDUSTRY STRESS												
	AGRICULTURE			75	-1,750								
	FISHERIES		-	45	350								
	FORESTRY	-	+	1,500	4,750								
	TOTAL			1620	3350								
	CARBON TOTAL			**9,640**	**63,410**	**25,150**	**36,300**	**725**	**1,081**				

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)	