CLIMATE VULNERABILITY MONITOR

DARA

Climate Vulnerable Forum

COUNTRY PROFILE

GUATEMALA

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: GUATEMALA

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

CLIMATE CHANGE IMPACT

LOSSES PER YEAR

2010 **2.9%GDP**

2030 **5.8%GDP**

CARBON INTENSIVENESS IMPACT

LOSSES PER YEAR

2010 **0.8%GDP**

2030 **1.2%GDP**

HUMAN NATIONAL LOSS TOTALS: GUATEMALA

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

CLIMATE +CARBON COMBINED

ADDITIONAL MORTALITY-YEARLY AVERAGE

2010 **3,500**

2030 **5,000**

ADDITIONAL PERSONS AFFECTED-YEARLY AVERAGE

CLIMATE

2010 **1,100,000** 2030 **1,200,000**

CARBON

2010 **150,000** 2030 **250,000**

FULL COUNTRY ASSESSMENT: GUATEMALA

		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	+	-	5	20								
	FLOODS AND LANDSLIDES	-	-	5	60	5	10	45	90				
	STORMS			-1	-10		1	0	0				
	WILDFIRES												
	TOTAL			9	70	5	11	45	90				
	HABITAT CHANGE												
	BIODIVERSITY			30	250					-1,250	-2,750	150	500
	DESERTIFICATION												
	HEATING AND COOLING		-	5	150					30	300	10	100
	LABOUR PRODUCTIVITY	+	+	1,500	10,000					44	34		
	PERMAFROST												
	SEA-LEVEL RISE			60	400			0	0	10	20		
	WATER	+	-	150	1,250					1	1		
	TOTAL			1,745	12,050			0	0				
	HEALTH IMPACT												
	DIARRHEAL INFECTIONS	-	-			150	150	0					
	HEAT AND COLD ILLNESSES	+	+			90	100						
	HUNGER	+	+			500	1,000	0	1				
	MALARIA AND VECTOR-BORNE					1	5	0	1				
	MENINGITIS	-	-			50	90	0	0				
	TOTAL					791	1,345	2	3				
	INDUSTRY STRESS												
	AGRICULTURE	-	+	100	850								
	FISHERIES			5	85								
	FORESTRY		+	10	150								
	HYDRO ENERGY	-	+	10	55								
	TOURISM												
	TRANSPORT												
	TOTAL			125	1,140								
	CLIMATE TOTAL			**1,879**	**13,260**	**796**	**1,355**	**47**	**93**				
CARBON	**ENVIRONMENTAL DISASTERS**												
	OIL SANDS												
	OIL SPILLS												
	TOTAL			0	0								
	HABITAT CHANGE												
	BIODIVERSITY		-	350	2,750					1,750	5,000		
	CORROSION												
	WATER												
	TOTAL			350	2750								
	HEALTH IMPACT												
	AIR POLLUTION		-			600	900	10	25				
	INDOOR SMOKE					2,000	2,500	150	200				
	OCCUPATIONAL HAZARDS					10	10	2	2				
	SKIN CANCER	-	+			40	100	0	0				
	TOTAL					2650	3510	162	227				
	INDUSTRY STRESS												
	AGRICULTURE			-10	-350								
	FISHERIES												
	FORESTRY			1	10								
	TOTAL			-9	-340								
	CARBON TOTAL			**341**	**2,410**	**2,650**	**3,510**	**162**	**227**				

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 (km²) (cumulative)	Decline in biological richness
DESERTI-FICATION	Additional land degraded (km²) (cumulative)	
HEATING & COOLING	Change in energy load (GWh)	
LABOUR PRODUCTIVITY	Share of workforce particularly affected (%)	
SEA-LEVEL RISE	Net loss of land (km²) (cumulative)	
WATER	Loss in water runoff 2030 (km³)	
OIL SANDS	Tonnes toxic waste (1000s)	
OIL SPILLS	Gallons oil spill (1000s)	
BIODIVERSITY	Decline in biological richness	
WATER	Volume of water to treat (millions m³)	