CLIMATE VULNERABILITY MONITOR

DARA

Climate Vulnerable Forum

COUNTRY PROFILE

SINGAPORE

CLIMATE: LOW 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: SINGAPORE

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

	LOSSES PER YEAR	
CLIMATE CHANGE IMPACT	2010 **NIL**	2030 **NIL**
CARBON INTENSIVENESS IMPACT	2010 **NIL**	2030 **0.2%GDP**

HUMAN NATIONAL LOSS TOTALS: SINGAPORE

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

	ADDITIONAL MORTALITY-YEARLY AVERAGE		ADDITIONAL PERSONS AFFECTED-YEARLY AVERAGE	
CLIMATE +CARBON COMBINED	2010 **2,000**	2030 **3,000**		
CLIMATE			2010 **600,000**	2030 **700,000**
CARBON			2010 **25,000**	2030 **55,000**

FULL COUNTRY ASSESSMENT: SINGAPORE

		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	-	-	10	40								
	FLOODS AND LANDSLIDES			1	5								
	STORMS												
	WILDFIRES												
	TOTAL			11	45	0	0	0	0				
	HABITAT CHANGE												
	BIODIVERSITY			10	70					-15	-30		
	DESERTIFICATION												
	HEATING AND COOLING		-	60	1,000					300	1,250	200	900
	LABOUR PRODUCTIVITY			25	200					6	6		
	PERMAFROST												
	SEA-LEVEL RISE			10	55			0	0				
	WATER			-250	-2,000								
	TOTAL			-145	-675			0	0				
	HEALTH IMPACT												
	DIARRHEAL INFECTIONS					0	0	0					
	HEAT AND COLD ILLNESSES	-	-			25	25						
	HUNGER												
	MALARIA AND VECTOR-BORNE					1	1	0	0				
	MENINGITIS					1	1	0	0				
	TOTAL					26	26	0	0				
	INDUSTRY STRESS												
	AGRICULTURE												
	FISHERIES			1	10								
	FORESTRY												
	HYDRO ENERGY												
	TOURISM												
	TRANSPORT												
	TOTAL			1	10								
	CLIMATE TOTAL			**-134**	**-620**	**26**	**26**	**0**	**1**				
CARBON	**ENVIRONMENTAL DISASTERS**												
	OIL SANDS												
	OIL SPILLS	-	-	300	1,250					500	500		
	TOTAL			300	1250								
	HABITAT CHANGE												
	BIODIVERSITY												
	CORROSION												
	WATER												
	TOTAL			0	0								
	HEALTH IMPACT												
	AIR POLLUTION	+	+			1,500	2,750	20	45				
	INDOOR SMOKE					250	250	2	2				
	OCCUPATIONAL HAZARDS	+	-			15	25	4	5				
	SKIN CANCER	-	+			10	25	0	0				
	TOTAL					1775	3050	26	53				
	INDUSTRY STRESS												
	AGRICULTURE			-20	-550								
	FISHERIES			1	10								
	FORESTRY												
	TOTAL			-19	-540								
	CARBON TOTAL			**281**	**710**	**1,775**	**3,050**	**26**	**53**				

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)	