CLIMATE VULNERABILITY MONITOR







COUNTRY PROFILE







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: MALAYSIA

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

CLIMAIE CHANGE

2010 **3.6%**_{GDP} 2030 **7.3%**cpp

CARBON INTENSIVENESS

2010 **2.2%**_{GDP} 2030 **4.1%**_{GDB}



HUMAN NATIONAL LOSS TOTALS: MALAYSIA

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

ADDITIONAL MORTALITY-YEARLY AVERAGE

CLIMATE +CARBON

2010 5,500 2030 8,000 🕼 CLIMATE

CARBON

ΔΠΠΙΤΙΠΝΙΔΙ

ADDITIONAL PERSONS AFFECTED-YEARLY AVERAGE

2010 2,350,000 2030 2,600,000

2010 **70,000**

2030 150,000

FULL COUNTRY ASSESSMENT: MALAYSIA

		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	- VIII NEDADII	ITVI EVELO			
	ENVIRONMENTAL DISASTERS												VULNERABIL				
	DROUGHT	- +	20	80									+ Acute+	+ High-	-		
	FLOODS AND LANDSLIDES	-	20	200	5	5	15	15					_ Acute-	- High-			
4	STURIVIS		-1	-10									Severe+	Mode	rate		
	WILDFIRES		-0	-1									_	_			
	TOTAL		39	269	5	5	15	15					- Severe-	Low			
	HABITAT CHANGE																
	BIODIVERSITY	-	350	2,750					-7,000	-15,000	150	500		+ = Upper tier of vulnerability level			
_	DESERTIFICATION												 = Lower tier of vulnerability level 				
•	HEATING AND COOLING	-	65	1,000					550	2,250	350	1,500					
	E I DOOK I KODOO IIVII I	- +	10,000	95,000					37	29			Environmental disasters				
	PERMAFROST								050	450			~				
البر	SEA-LEVEL RISE		900	5,750			2	2	250	450			(habitat change)				
	WATER		-800	-6,000					-1	-5			■ Health impact				
⊌	TOTAL		10,515	98,500			2	2					ndustry stress				
CLIMATE	HEALTH IMPACT				_	_	_						- Industry stress				
ا	DIARRHEAL INFECTIONS				5	0	0										
	HEAT AND COLD ILLNESSES				1 75	65 100	0	0					CLIMATE = Impact/Vu				
		_			30								(o Climate Cha	nge		
	MALARIA AND VECTOR-BORNE					50	10 0	20					CARBON = I				
	MENINGITIS				10 121	15 230	10	20					to Carbon Intensivene				
	TOTAL				121	230	10	20					1				
	INDUSTRY STRESS AGRICULTURE		500	4.000										OTHER	OTHER		
	FISHERIES	- +	500	5.750										VALUE 1	VALUE 2		
(A)		-	300	5,750										Contraction	Decline in		
(V	HYDRO ENERGY		-10	-65									BIODIVERSITY	of biological zones (km²)	biological		
	TOURISM	- +	1,250	10,000										(cumulative)	richness		
	TRANSPORT		1,230	10,000									DESERTI-	Additional land			
	TOTAL		2,240	19,685									FICATION	degraded (km²			
	CLIMATE TOTAL		12,793	118,454	126	235	27	37						(cumulative)			
													HEATING & Change in energy COOLING load (GWh)		99		
10	ENVIRONMENTAL DISASTERS OIL SANDS													Charact.			
	OIL SANDS												LABOUR	Share of workforce			
"	TOTAL		0	0									PRODUCTIVITY	particularly			
	HABITAT CHANGE		U	U									1	affected (%)			
										F 000			SEA-LEVEL	Net loss of			
	BIODIVERSITY		7 750	60 000													
	BIODIVERSITY	+ +	7,750	60,000					3,500	5,000			RISE	land (km²) (cumulative)			
•	CORROSION	+ +	1	5										(cumulative)			
	CORROSION WATER	+ +	1	5 15					95	150				(cumulative) Loss in water runoff 2030			
	CORROSION WATER TOTAL	+ +	1	5									RISE	(cumulative) Loss in water			
	CORROSION WATER TOTAL HEALTH IMPACT	+ +	1	5 15	2 000	4 250	35	100					WATER	(cumulative) Loss in water runoff 2030 (km³) Tonnes toxic			
CARBON	CORROSION WATER TOTAL HEALTH IMPACT AIR POLLUTION		1	5 15	2,000	4,250 3,500	35 20	100					RISE	(cumulative) Loss in water runoff 2030 (km³)			
	CORROSION WATER TOTAL HEALTH IMPACT AIR POLLUTION INDOOR SMOKE	- +	1	5 15	3,250	3,500	20	20					WATER	(cumulative) Loss in water runoff 2030 (km³) Tonnes toxic waste (1000s)			
CARBON	CORROSION WATER TOTAL HEALTH IMPACT AIR POLLUTION INDOOR SMOKE OCCUPATIONAL HAZARDS	- +	1	5 15	3,250 50	3,500 75	20 15	20 15					WATER	(cumulative) Loss in water runoff 2030 (km³) Tonnes toxic waste (1000s) Gallons oil			
CARBON	CORROSION WATER TOTAL HEALTH IMPACT AIR POLLUTION INDOOR SMOKE	• •	1	5 15	3,250	3,500	20	20					WATER OIL SANDS	(cumulative) Loss in water runoff 2030 (km³) Tonnes toxic waste (1000s)			
CARBON	CORROSION WATER TOTAL HEALTH IMPACT AIR POLLUTION INDOOR SMOKE OCCUPATIONAL HAZARDS SKIN CANCER	• •	1	5 15	3,250 50 40	3,500 75 95	20 15 0	20 15 0					WATER OIL SANDS OIL SPILLS	(cumulative) Loss in water runoff 2030 (km³) Tonnes toxic waste (1000s) Gallons oil spill (1000s) Decline in			
CARBON	CORROSION WATER TOTAL HEALTH IMPACT AIR POLLUTION INDOOR SMOKE OCCUPATIONAL HAZARDS SKIN CANCER TOTAL INDUSTRY STRESS	• •	1 1 7751.75	5 15 60020	3,250 50 40	3,500 75 95	20 15 0	20 15 0					WATER OIL SANDS	(cumulative) Loss in water runoff 2030 (km³) Tonnes toxic waste (1000s) Gallons oil spill (1000s)	ess		
CARBON	CORROSION WATER TOTAL HEALTH IMPACT AIR POLLUTION INDOOR SMOKE OCCUPATIONAL HAZARDS SKIN CANCER TOTAL INDUSTRY STRESS		1 1 7751.75	5 15 60020	3,250 50 40	3,500 75 95	20 15 0	20 15 0					WATER OIL SANDS OIL SPILLS	(cumulative) Loss in water runoff 2030 (km²) Tonnes toxic waste (1000s) Gallons oil spill (1000s) Decline in biological richr	ess		
CARBON	CORROSION WATER TOTAL HEALTH IMPACT AIR POLLUTION INDOOR SMOKE OCCUPATIONAL HAZARDS SKIN CANCER TOTAL INDUSTRY STRESS		1 1 7751.75	5 15 60020	3,250 50 40	3,500 75 95	20 15 0	20 15 0					WATER OIL SANDS OIL SPILLS	(cumulative) Loss in water runoff 2030 (km²) Tonnes toxic waste (1000s) Gallons oil spill (1000s) Decline in biological richr Volume of water to treat	ess		
CARBON	CORROSION WATER TOTAL HEALTH IMPACT AIR POLLUTION INDOOR SMOKE OCCUPATIONAL HAZARDS SKIN CANCER TOTAL INDUSTRY STRESS AGRICULTURE FISHERIES		1 1 7751.75	5 15 60020 -2,250 500	3,250 50 40	3,500 75 95	20 15 0	20 15 0					WATER OIL SANDS OIL SPILLS BIODIVERSITY	(cumulative) Loss in water runoff 2030 (km²) Tonnes toxic waste (1000s) Galtions oil spill (1000s) Decline in biological richr Volume of	ess		