CLIMATE VULNERABILITY MONITOR

DARA

Climate Vulnerable Forum

COUNTRY PROFILE

MALAWI

CLIMATE: **ACUTE** 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: MALAWI

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

CLIMATE CHANGE IMPACT

LOSSES PER YEAR

2010 **3.2%GDP**
2030 **7.4%GDP**

CARBON INTENSIVENESS IMPACT

LOSSES PER YEAR

2010 **2.6%GDP**
2030 **0.9%GDP**

HUMAN NATIONAL LOSS TOTALS: MALAWI

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

CLIMATE +CARBON COMBINED

ADDITIONAL MORTALITY-YEARLY AVERAGE

2010 **20,000**
2030 **20,000**

CLIMATE

ADDITIONAL PERSONS AFFECTED-YEARLY AVERAGE

2010 **1,350,000** 2030 **2,200,000**

CARBON

2010 **900,000** 2030 **750,000**

FULL COUNTRY ASSESSMENT: MALAWI

		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	+	+	1	1								
	FLOODS AND LANDSLIDES		-	1	5	1	1	15	25				
	STORMS				1								
	WILDFIRES												
	TOTAL			2	7	1	1	15	25				
	HABITAT CHANGE												
	BIODIVERSITY		-	10	60					-600	-1,250	60	150
	DESERTIFICATION			-1	-10								
	HEATING AND COOLING			-1	-10					-80	-100	-10	-10
	LABOUR PRODUCTIVITY	+	+	150	900					61	50		
	PERMAFROST												
	SEA-LEVEL RISE												
	WATER			-1	-15						-0		
	TOTAL			157	925			0	0				
	HEALTH IMPACT												
	DIARRHEAL INFECTIONS	+	-			450	800	0					
	HEAT AND COLD ILLNESSES	+	+			250	400						
	HUNGER	-	-			650	1,000	0	0				
	MALARIA AND VECTOR-BORNE	+	+			600	600	150	150				
	MENINGITIS	+	+			400	650	0	1				
	TOTAL					2,350	3,450	151	151				
	INDUSTRY STRESS												
	AGRICULTURE	+	+	150	1,000								
	FISHERIES	-	+	60	900								
	FORESTRY		-	1	10								
	HYDRO ENERGY												
	TOURISM												
	TRANSPORT												
	TOTAL			211	1,910								
	CLIMATE TOTAL			**369**	**2,842**	**2,351**	**3,451**	**166**	**176**				
CARBON	**ENVIRONMENTAL DISASTERS**												
	OIL SANDS												
	OIL SPILLS												
	TOTAL			0	0								
	HABITAT CHANGE												
	BIODIVERSITY			35	250					250	700		
	CORROSION												
	WATER				1					80	100		
	TOTAL			35	250.75								
	HEALTH IMPACT												
	AIR POLLUTION	-	-			1,000	1,750	20	60				
	INDOOR SMOKE	+	-			15,000	10,000	850	700				
	OCCUPATIONAL HAZARDS		-			20	35	5	7				
	SKIN CANCER		-			20	55	0	0				
	TOTAL					16040	11840	875	767				
	INDUSTRY STRESS												
	AGRICULTURE			-20	-450								
	FISHERIES												
	FORESTRY			1	1								
	TOTAL			-19.5	-449								
	CARBON TOTAL			**16**	**-199**	**16,040**	**11,840**	**875**	**767**				

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)	