# **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: BENIN ADDITIONAL ECONOMIC COSTS (NEGATIVE NUMBERS SHOW POSITIVE EFFECTS) - YEARLY AVERAGE



2010 **5.0%**<sub>GDP</sub> 2030 **10.1%**cm CARBON INTENSIVENESS

2010 **2.7%**<sub>GDP</sub> 2030 **2.5%** GDD



## **HUMAN NATIONAL LOSS TOTALS: BENIN**

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

ADDITIONAL MORTALITY-YEARLY AVERAGE



2010 9,000

2030 9,500

👀 CLIMATE

🕽 CARBON

ADDITIONAL PERSONS AFFECTED-YEARLY AVERAGE

2010 900,000

2030 1,550,000

2010 350,000

2030 350,000

### **FULL COUNTRY ASSESSMENT: BENIN**

			VULNERABILITY LEVEL	ADDITIONAL CONOMIC 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	- VIIINEDADII	LITY LEVELS:	
		ENVIRONMENTAL DISASTERS														
		DROUGHT	+ -	1	5									+ Acute+	+ High+	
		FLOODS AND LANDSLIDES		1	5	1	1	7	15					_ Acute-	- High-	
		STORMS WILDFIRES												- Severe+	Moder Moder	ate
		TOTAL		1	10	1	1	7	15					Severe-	Low	
	l i	HABITAT CHANGE			10			,	13					_	_	
	<b>%</b>	BIODIVERSITY	- +	20	100					-6,000	-10,000	200	550	+ = Upper tier	of vulnerability	rlevel
		DESERTIFICATION	+ +	15	100			100	350	1,500	3,000			- = Lower tier		
		HEATING AND COOLING	+ -	15	150					100	300	85	200	Lowertier	or votrici donne	, tevet
		LABOUR PRODUCTIVITY	- +	400	2,750					59	48			<b>A</b> = .		
		PERMAFROST												Environme		
		SEA-LEVEL RISE		25	150					60	85			💮 🔂 Habitat ch	enge	
		WATER	-	10	75					0	1			Health imp	act	
CLIMATE	- !	TOTAL		485	3,325			100	350					_		
	•	HEALTH IMPACT												🐪 Industry st	ress	
		DIARRHEAL INFECTIONS				350	450	0								
		HEAT AND COLD ILLNESSES				90	150	•						CLIMATE =		
		HUNGER MALARIA AND VECTOR-BORNE	- +			600 95	650 60	0 25	0 20					_	o Climate Char	5
		MENINGITIS	+ +			250	350	0	0					CARBON =		
	<b>&gt;</b>	TOTAL				1.385	1.660	26	20					, t	o Carbon Inten	siveness
		INDUSTRY STRESS				1,000	1,000	20	20							
		AGRICULTURE	- +	90	600										OTHER VALUE 1	OTHER VALUE 2
		FISHERIES		25	350											VALUE 2
		FORESTRY	+ +	20	200										Contraction of biological	Decline in
		HYDRO ENERGY												BIODIVERSITY	zones (km²)	biological richness
		TOURISM													(cumulative)	TICH ICSS
		TRANSPORT												DESERTI-	Additional land degraded (km²)	
		TOTAL		135	1,150									FICATION	(cumulative)	
		CLIMATE TOTAL		621	4,485	1,386	1,661	133	385					HEATING &	Change in energ	111
CARBON		ENVIRONMENTAL DISASTERS												COOLING	load (GWh)	19
		OIL SANDS													Share of	
		OIL SPILLS												LABOUR	workforce	
	!	TOTAL		0	0									PRODUCTIVITY	particularly affected (%)	
		HABITAT CHANGE													Net loss of	
		BIODIVERSITY	- +	150	950					1,500	4,500			SEA-LEVEL RISE	land (km²)	
	•	CORROSION													(cumulative)	
		WATER												WATER	Loss in water runoff 2030	
	•	TOTAL		150	950									WITE I	(km <sup>3</sup> )	
		HEALTH IMPACT AIR POLLUTION				1.000	1,750	15	45						Tonnes toxic	
		INDOOR SMOKE	+ -			6,750	5,750	350	300					OIL SANDS	waste (1000s)	
		OCCUPATIONAL HAZARDS				10	15	2	3							
		SKIN CANCER				10	25	0	0					OIL SPILLS	Gallons oil spill (1000s)	
		TOTAL				7770	7540	367	348						эри (1000э)	
		INDUSTRY STRESS												BIODIVERSITY	Decline in	
		AGRICULTURE		-10	-250									DIODIVERSITY	biological richne	!SS
		FISHERIES			1										Valume of	
		FORESTRY		1	5									WATER	water to treat (millions m <sup>3</sup> )	
	1	TOTAL		-9	-244										(millions mil)	
		CARBON TOTAL		141	706	7,770	7,540	367	348							