# **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: AFGHANISTAN**

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

CLIMAIE CHANGE

2010 **2.8%**<sub>GDP</sub>

2030 **4.9%**<sub>GDB</sub>

CARBON INTENSIVENESS

2010 **5.5%**<sub>GDP</sub> 2030 **4.4%**<sub>GDB</sub>



## **HUMAN NATIONAL LOSS TOTALS: AFGHANISTAN**

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

ADDITIONAL MORTALITY-YEARLY AVERAGE

CLIMATE +CARBON 2010 **90,000** 

2030 150,000

🗘 CLIMATE

CARBON

2010 3,550,000 2030 6,650,000

2010 4,600,000 2030 6,250,000

#### **FULL COUNTRY ASSESSMENT: AFGHANISTAN**

		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	_		
	ENVIRONMENTAL DISASTERS												VULNERABILITY LEVELS:		
	DROUGHT	+ +	5	40									+ Acute+	+ High	+
	FLOODS AND LANDSLIDES		5	35	5	10	55	90					- Acute-	- High	-
	STORMS												+ Severe+	Mode	
	WILDFIRES												_		sidle
	TOTAL		10	75	5	10	55	90					- Severe-	Low	
	HABITAT CHANGE														
	BIODIVERSITY	- +	80	650					-10,000	-20,000	70	200	+ = Upper tier	r of vulnerabili	ty level
	DESERTIFICATION		5	30			25	80	500	1,000			- = Lower tier	r of vulnerabili	ty level
	HEATING AND COOLING		-30	-150					-650	-800	-150	-200			
	LABOUR PRODUCTIVITY	+ -	350	3,000					29	23			Environme	ental disasters	
	PERMAFROST		20	100			90	200							•
	SEA-LEVEL RISE			0.50						_			• Habitat ch	iange	
	WATER	- +	35	250			445	000	1	5			Health im	pact	
	TOTAL		460	3,880			115	280						trace	
	HEALTH IMPACT DIARRHEAL INFECTIONS				2,000	4,000	2						_ (a) industry's	(1633	
		+ +					2						•		
	HEAT AND COLD ILLNESSES	+ +			250 5,750	400 7,500	5	6					CLIMATE =		
	HUNGER MALARIA AND VECTOR-BORNE	+ +			10	15	2	6					_	to Climate Cha	_
	MENINGITIS				500	850	0	1					CARBON =		
	TOTAL				8,510	12,765	11	13						to Carbon Inte	nsivenes:
	INDUSTRY STRESS				0,510	12,700		13							
	AGRICULTURE	+ -	85	700										OTHER	OTHER
	FISHERIES		00	700										VALUE 1	VALUE
														Contraction of biological	Decline
	HYDRO ENERGY												BIODIVERSITY	zones (km²)	biologic
	TOURISM													(cumulative)	richnes
	TRANSPORT												DESERTI-	Additional land	
	TOTAL		85	700									FICATION	degraded (km² (cumulative)	7)
	CLIMATE TOTAL		555	4,655	8,515	12,775	181	383							
													HEATING & COOLING	Change in ene load (GWh)	rgy
	ENVIRONMENTAL DISASTERS												COOLING		
	OIL SANDS												LABOUR	Share of workforce	
	OIL SPILLS			_									PRODUCTIVITY		
	TOTAL		0	0										affected (%)	
	HABITAT CHANGE								_				SEA-LEVEL	Net loss of	
	BIODIVERSITY		10	65					5	20			RISE	land (km²) (cumulative)	
	CORROSION WATER												_	Loss in water	
	TOTAL		10	65									WATER	runoff 2030	
•	HEALTH IMPACT		10	65									·	(km³)	
	AIR POLLUTION	+ +			4,000	10,000	55	200						Tonnes toxic	
	INDOOR SMOKE	+ +			80,000	100,000	4,500	6,000					OIL SANDS	waste (1000s)	)
	OCCUPATIONAL HAZARDS	7 7			80	100,000	20	30					_		
	SKIN CANCER				50	150	0	0					OIL SPILLS	Gallons oil spill (1000s)	
	TOTAL				84130	110250	4575	6230						spill (IUUUS)	
<b>&gt;</b>	INDUSTRY STRESS				000		.0.0	0200					BIODIVEDCITY	Decline in	
	AGRICULTURE		-10	-350									BIODIVERSITY	biological richr	ness
	FISHERIES			000										Valume of	
	FORESTRY												WATER	water to treat	
	TOTAL		-10	-350										(millions m³)	
			0	-285	84,130	110,250	4,575	6,230					4		