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



2010 **0.5%**_{GDP} 2030 **1.0%**_{GDP}



2010 **0.2%**_{GDP} 2030 **0.2%**_{GDD}



HUMAN NATIONAL LOSS TOTALS: SPAIN

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

ADDITIONAL MORTALITY-YEARLY AVERAGE

CLIMATE +CARBON

2010 10,000 2030 10,000

CLIMATE

🕽 CARBON

ADDITIONAL PERSONS AFFECTED-YEARLY AVERAGE

2010 1,250,000 2030 1,700,000

2010 **250,000** 2030 300,000

FULL COUNTRY ASSESSMENT: SPAIN

			VULNERABILITY LEVEL	ADDITIONAL LITY 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												VULNERABIL	VULNERABILITY LEVELS:			
	(4)	DROUGHT	+ +	200	650									+ Acute+	+ High+			
		FLOODS AND LANDSLIDES		10	35	1	1	4	5					- Acute-	- High-			
		STORMS		-1	-10									+ Severe+	Moder	ate		
		WILDFIRES		-0	-1									_	_	ate		
		TOTAL		209	674	1	1	4	5					- Severe-	Low			
		HABITAT CHANGE																
		BIODIVERSITY	- +	1,500	4,250					-15,000	-30,000	80	250	+ = Upper tier	of vulnerability	j level		
	(%)	DESERTIFICATION	- +	200	600			250	450	2,750	5,500			= Lower tier	of vulnerability	j level		
		HEATING AND COOLING		-500	-1,250					-2,500	-4,000	-800	-1,250					
		LABOUR PRODUCTIVITY								5	5			Environme	antal disastors			
		PERMAFROST												~				
		SEA-LEVEL RISE		200	450			1	1	35	65			Habitat cha				
		WATER	+ +	4,750	15,000			054		5	5			Health imp	pact			
		TOTAL		6,150	19,050			251	451					M Industry st				
		HEALTH IMPACT				0	0	0						Thousing stress				
	•	DIARRHEAL INFECTIONS	- +			250	300	U						•				
		HEAT AND COLD ILLNESSES HUNGER	- +			250	300							CLIMATE =	mpact/Vulnera to Climate Char			
		MALARIA AND VECTOR-BORNE												_				
		MENINGITIS												CARBON =				
	%	TOTAL				250	300	0	0					ı t	o Carbon Inten	siveness		
		INDUSTRY STRESS				250	300	0	U					1				
		AGRICULTURE		350	850										OTHER VALUE 1	OTHER VALUE 2		
		FISHERIES		35	100											VALUE 2		
		FORESTRY		35	100										Contraction of biological	Decline in		
		HYDRO ENERGY		10	95									BIODIVERSITY	zones (km²)	biological		
		TOURISM		5	30										(cumulative)	richness		
		TRANSPORT												DESERTI-	Additional land			
		TOTAL		435	1,175									FICATION	degraded (km²) (cumulative)			
		CLIMATE TOTAL		6,793	20,899	250	301	255	456					I				
		ENNUR CHIMENITAL DIGASTERS												HEATING & COOLING	Change in energ load (GWh))y		
CARBON		ENVIRONMENTAL DISASTERS																
		OIL SANDS OIL SPILLS		500	800					2,250	2,500			LABOUR	Share of workforce			
		TOTAL		500	800					2,230	2,300			PRODUCTIVITY	particularly			
	•	HABITAT CHANGE		300	800									-	affected (%)			
		BIODIVERSITY		1,250	3,500					70	200			SEA-LEVEL	Net loss of land (km²)			
		CORROSION		5	5					70	200			RISE	(cumulative)			
		WATER		90	100					2,750	2,500				Loss in water			
		TOTAL		1345	3605					_,	_,,,,,			WATER	runoff 2030			
	•	HEALTH IMPACT												· ——	(km³)			
		AIR POLLUTION	- +			8,000	8,750	150	200					OIL SANDS	Tonnes toxic			
		INDOOR SMOKE				1,750	2,250	40	45					0.20/1100	waste (1000s)			
		OCCUPATIONAL HAZARDS				350	350	55	55						Gallons oil			
		SKIN CANCER	+ +			400	750	2	3					OIL SPILLS	spill (1000s)			
		TOTAL				10500	12100	247	303									
	%	INDUSTRY STRESS												BIODIVERSITY	Decline in			
		AGRICULTURE	-	250	-1,000									biological richness		55		
		FISHERIES	-	35	100									Valume of				
		FORESTRY	-	250	300									WATER	water to treat (millions m ³)			
	1	TOTAL		535	-600										(-10001151111)			
		CARBON TOTAL		2,380	3,805	10,500	12,100	247	303					1				