

## COUNTRY PROFILE

### PORTUGAL

CLIMATE: **LOW** 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](http://www.daraint.org/cvm2) - [cvm@daraint.org](mailto:cvm@daraint.org) - +34 915310372

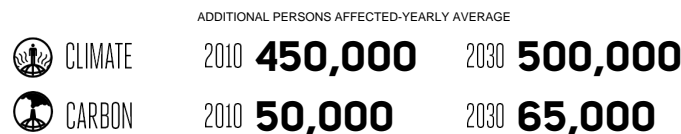
#### ECONOMIC NATIONAL LOSS TOTALS: PORTUGAL

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



#### HUMAN NATIONAL LOSS TOTALS: PORTUGAL

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



#### FULL COUNTRY ASSESSMENT: PORTUGAL

	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
<b>ENVIRONMENTAL DISASTERS</b>												
DROUGHT	+	+	45	150			2	2				
FLOODS AND LANDSLIDES			10	30	1	1						
STORMS												
WILDFIRES			-0	-1								
<b>TOTAL</b>			55	179	1	1	2	2				
<b>HABITAT CHANGE</b>												
BIODIVERSITY		-	200	650					-3,750	-7,250	70	200
DESERTIFICATION		-	30	90			55	100	450	900		
HEATING AND COOLING			-150	-400					-700	-1,250	-300	-550
LABOUR PRODUCTIVITY									6	6		
PERMAFROST												
SEA-LEVEL RISE			100	200			0	0	25	40		
WATER		-	250	700					0	0		
<b>TOTAL</b>			430	1,240			55	100	0	0		
<b>HEALTH IMPACT</b>												
DIARRHEAL INFECTIONS					0	0	0	0				
HEAT AND COLD ILLNESSES					-15	-60						
HUNGER												
MALARIA AND VECTOR-BORNE												
MENINGITIS												
<b>TOTAL</b>					-15	-60	0	0				
<b>INDUSTRY STRESS</b>												
AGRICULTURE			65	150								
FISHERIES			20	60								
FORESTRY			5	20								
HYDRO ENERGY			-1	20								
TOURISM												
TRANSPORT												
<b>TOTAL</b>			90	250								
<b>CLIMATE TOTAL</b>			573	1,669	-15	-60	57	103				
<b>ENVIRONMENTAL DISASTERS</b>												
OIL SANDS												
OIL SPILLS												
<b>TOTAL</b>			0	0								
<b>HABITAT CHANGE</b>												
BIODIVERSITY			250	750					100	250		
CORROSION		+	15	15								
WATER		+	50	65					1,750	1,500		
<b>TOTAL</b>			315	830								
<b>HEALTH IMPACT</b>												
AIR POLLUTION		+			2,750	3,250	40	50				
INDOOR SMOKE					350	450	4	5				
OCCUPATIONAL HAZARDS		-			50	55	7	7				
SKIN CANCER		-	100	250	0	1						
<b>TOTAL</b>					3250	4005	51	63				
<b>INDUSTRY STRESS</b>												
AGRICULTURE		+	55	-50								
FISHERIES			1	5								
FORESTRY			1	5								
<b>TOTAL</b>			57	-40								
<b>CARBON TOTAL</b>			372	790	3,250	4,005	51	63				

**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 (km²) (cumulative) / Decline in biological richness
- DESERTIFICATION: Additional land degraded (km²) (cumulative)
- HEATING & COOLING: Change in energy load (GWh)
- LABOUR PRODUCTIVITY: Share of workforce particularly affected (%)
- SEA-LEVEL RISE: Net loss of land (km²) (cumulative)
- WATER: Loss in water runoff 2030 (km³)
- OIL SANDS: Tonnes toxic waste ('000s)
- OIL SPILLS: Gallons oil spill ('000s)
- BIODIVERSITY: Decline in biological richness
- WATER: Volume of water to treat (millions m³)