# **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: GREECE**

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



2010 **0.6%**<sub>GDP</sub> 2030 **1.1%** GDP



LOSSES PER YEAR

2010 **NIL** 2030 **0.2%**<sub>GDD</sub>



## **HUMAN NATIONAL LOSS TOTALS: GREECE**

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

ADDITIONAL MORTALITY-YEARLY AVERAGE

CLIMATE +CARBON

2010 4,500

2030 5,000

🙀 CLIMATE

ΔΠΠΙΤΙΠΝΔΙ

🔊 CARBON

ADDITIONAL PERSONS AFFECTED-YEARLY AVERAGE

2010 **400,000** 

2030 600,000

2010 **50,000** 2030 60,000

#### **FULL COUNTRY ASSESSMENT: GREECE**

			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												VULNERABIL			
	_	DROUGHT	+ +	35	95									+ Acute+	+ High+		
		FLOODS AND LANDSLIDES		10	30	1	1	2	3					- Acute-	- High-		
		STORMS		1	5									Severe+	Mode	rate	
		WILDFIRES												Severe-	Low		
CLIMATE	i	TOTAL		46	130	1	1	2	3					Severe	LOW		
		HABITAT CHANGE		100	4.050					0.750	7.050	00	050				
		BIODIVERSITY DESERTIFICATION	+ +	400 100	1,250 350			100	250	-3,750 1,500	-7,250 2,750	80	250	+ = Upper tier of vulnerability level - = Lower tier of vulnerability level			
		HEATING AND COOLING	+ +	-25	-45			100	250	-250	-250	-200	-200	- = Lowertier	or vulnerability	y level	
		LABOUR PRODUCTIVITY		-20	-43					5	5	-200	-200	_			
		PERMAFROST												Environmental disasters			
		SEA-LEVEL RISE		250	500			0	0	30	50			♠ Habitat cha	anne		
		WATER	- +	900	2,750					1	1			Health imp	-		
		TOTAL		1,625	4,805			100	250								
		HEALTH IMPACT															
		DIARRHEAL INFECTIONS				0	0	0									
		HEAT AND COLD ILLNESSES	+ +			150	200							CLIMATE =	mpact/Vulner	ability	
	$\bigcirc$	HUNGER													o Climate Cha		
		MALARIA AND VECTOR-BORNE												CARBON =	mpact/Vulner	abilitu	
		MENINGITIS												to Carbon Intensiveness			
	i i	TOTAL				150	200	0	0								
		INDUSTRY STRESS													OTHER	OTHER	
		AGRICULTURE		200 10	450 25										VALUE 1	VALUE 2	
	(A)	FISHERIES FORESTRY		10	25										Contraction	Decline in	
	<b>&gt;</b>	HYDRO ENERGY		10	20									BIODIVERSITY	of biological zones (km²)	biological	
		TOURISM		'	20										(cumulative)	richness	
		TRANSPORT												DESERTI-	Additional land		
		TOTAL		221	520									FICATION	degraded (km²) (cumulative)		
		CLIMATE TOTAL		1,892	5,455	150	200	102	253								
		ENVIRONMENTAL DICACTERS												HEATING & COOLING	HEATING & Change in energy COOLING load (GWh)		
CARBON		ENVIRONMENTAL DISASTERS OIL SANDS													Share of		
		OIL SANDS OIL SPILLS												LABOUR	workforce		
		TOTAL		0	0									PRODUCTIVITY	particularly		
		HABITAT CHANGE		0	Ū									affected (%)			
		BIODIVERSITY		350	1,000					70	200			SEA-LEVEL	Net loss of land (km²)		
	•	CORROSION		1	1									RISE	(cumulative)		
		WATER		10	15					350	300				Loss in water		
		TOTAL		361	1016									WATER	runoff 2030 (km³)		
		HEALTH IMPACT													(KIII')		
		AIR POLLUTION	+ +			3,500	4,000	40	45					OIL SANDS	Tonnes toxic waste (1000s)		
		INDOOR SMOKE				450	600	5	6						waste (1000s)		
	v	OCCUPATIONAL HAZARDS				90	90	5	5					OIL SPILLS	Gallons oil		
		SKIN CANCER	+ +			100	200	0	11					UIL SPILLS	spill (1000s)		
	i	TOTAL				4140	4890	51	58						Decline in		
		INDUSTRY STRESS			400									BIODIVERSITY	Decline in biological richn	ess	
		AGRICULTURE FISHERIES		-55 5	-400 15												
		FORESTRY		35	40									WATER	Volume of water to treat		
		TOTAL		-15	-345										(millions m <sup>3</sup> )		
		CARBON TOTAL		346	671	4,140	4,890	51	58								
		DARESON TOTAL		040	- 07.1	7,170	-1,050							1			