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



2010 **0.8%**_{GDP} 2030 **0.7%**_{GDP}

CARBON INTENSIVENESS

2010 **0.6%**_{GDP} 2030 **1.0%**_{GDP}

ADDITIONAL PERSONS AFFECTED-YEARLY AVERAGE



HUMAN NATIONAL LOSS TOTALS: ESTONIA

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

ΔΠΠΙΤΙΠΝΔΙ

ADDITIONAL MORTALITY-YEARLY AVERAGE

CLIMATE +CARBON

2010 250 2030 300 CLIMATE

🔊 CARBON

ΔΠΠΙΤΙΠΝΔΙ

2010 **10,000** 2010 4,500

2030 10,000

2030 5,500

FULL COUNTRY ASSESSMENT: ESTONIA

| | | | VULNERABILITY LEVEL | ADDITIONAL TY ECONOMIC COSTS ADDITIONAL (MILLION USD PPP) MORTALITY | | IONAL ALITY | ADDITIONAL AFFECTED POPULATION (1000s) | | OTHER VALUE 1* | | OTHER VALUE 2* | | _ | | | | | |
|---------|------------|--------------------------|------------------------|---|-----------|----------------|--|------|-------------------|------|-------------------|------|------|--------------------------------|---------------------------------------|------------|--|--|
| | | | 2010 2030 | 2010 | 2030 | 2010 | 2030 | 2010 | 2030 | 2010 | 2030 | 2010 | 2030 | | TT () E) (E) O | | | |
| CLIMATE | | ENVIRONMENTAL DISASTERS | | | | | | | | | | | | VULNERABIL | .ITY LEVELS: | | | |
| | _ | DROUGHT | | 1 | 5 | | | | | | | | | + Acute+ | + High+ | - | | |
| | | FLOODS AND LANDSLIDES | | | | | | 0 | 0 | | | | | - Acute- | - High- | | | |
| | | STORMS | | 1 | 1 | | | | | | | | | - Severe+ | Mode | rate | | |
| | | WILDFIRES | | | | | | | | | | | | _ | _ | rate | | |
| | | TOTAL | | 1 | 6 | 0 | 0 | 0 | 0 | | | | | - Severe- | Low | | | |
| | | HABITAT CHANGE | | | | | | | | | | | | | | | | |
| | | BIODIVERSITY | | 85 | 400 | | | | | -150 | -300 | 90 | 300 | + = Upper tier | + = Upper tier of vulnerability level | | | |
| | | DESERTIFICATION | | | | | | | | | | | | = Lower tier | of vulnerabilit | y level | | |
| | | HEATING AND COOLING | | -40 | -250 | | | | | -150 | -300 | -150 | -300 | | | | | |
| | | LABOUR PRODUCTIVITY | | 5 | 20 | | | | | 5 | 5 | | | A Environme | ental disastors | | | |
| | | PERMAFROST | | | | | | | | | | | | Ψ | | | | |
| | | SEA-LEVEL RISE | - | 250 | 1,250 | | | 0 | 0 | 60 | 200 | | | ھ Habitat ch | ange | | | |
| | | WATER | | -100 | -800 | | | | | -0 | -1 | | | . Health im | oact | | | |
| | 1 | TOTAL | | 200 | 620 | | | 0 | 0 | | | | | (V) Industru stress | | | | |
| | | HEALTH IMPACT | | | | | | | | | | | | Thousing sitess | | | | |
| | | DIARRHEAL INFECTIONS | | | | 0 | 0 | 0 | | | | | | | | | | |
| | | HEAT AND COLD ILLNESSES | - + | | | 20 | 25 | | | | | | | CLIMATE = | Impact/Vulner | ability | | |
| | lacksquare | HUNGER | | | | | | | | | | | | _ | to Climate Cha | - | | |
| | | MALARIA AND VECTOR-BORNE | | | | | | | | | | | | CARBON = | | | | |
| | | MENINGITIS | | | | | 0.5 | 0 | 0 | | | | | | to Carbon Intensiveness | | | |
| | i | TOTAL | | | | 20 | 25 | 0 | 0 | | | | | | | | | |
| | % | INDUSTRY STRESS | | 5 | 20 | | | | | | | | | | OTHER | OTHER | | |
| | | AGRICULTURE | | 15 | 90 | | | | | | | | | | VALUE 1 | VALUE 2 | | |
| | | FISHERIES | | 15 | -1 | | | | | | | | | | Contraction | Decline in | | |
| | | FORESTRY HYDRO ENERGY | | | -1 | | | | | | | | | BIODIVERSITY | of biological zones (km²) | biological | | |
| | | TOURISM | | | -1 | | | | | | | | | | (cumulative) | richness | | |
| | | TRANSPORT | | | -1 | | | | | | | | | DECEDIA | Additional land | | | |
| | | TOTAL | | 20 | 108 | | | | | | | | | DESERTI- FICATION | degraded (km²) | | | |
| | | CLIMATE TOTAL | | 221 | 734 | 20 | 25 | 0 | 0 | | | | | Tiertifort | (cumulative) | | | |
| | | | | | | 20 | 20 | | | | | | | HEATING & COOLING | Change in energy load (GWh) | | | |
| CARBON | | ENVIRONMENTAL DISASTERS | | | | | | | | | | | | | | | | |
| | | OIL SANDS | | | | | | | | | | | | LABOUR | Share of workforce | | | |
| | ₩ | OIL SPILLS | | | | | | | | | | | | PRODUCTIVITY | | | | |
| | i | TOTAL | | 0 | 0 | | | | | | | | | affected (%) | | | | |
| | (1) | HABITAT CHANGE | | | | | | | | | | | | SEA-LEVEL | Net loss of | | | |
| | | BIODIVERSITY | | 35 | 250 | | | | | 45 | 200 | | | RISE | land (km²) (cumulative) | | | |
| | | CORROSION | | - | 45 | | | | | 000 | 000 | | | | Loss in water | | | |
| | | WATER TOTAL | - + | 5 40 | 15 265 | | | | | 200 | 200 | | | WATER | runoff 2030 | | | |
| | i | HEALTH IMPACT | | 40 | 200 | | | | | | | | | | (km³) | | | |
| | • | AIR POLLUTION | | | | 1 | 1 | 0 | 1 | | | | | - | Tonnes toxic | | | |
| | | INDOOR SMOKE | | | | 200 | 200 | 2 | 2 | | | | | OIL SANDS | waste (1000s) | | | |
| | | OCCUPATIONAL HAZARDS | | | | 5 | 5 | 1 | 1 | | | | | | | | | |
| | | SKIN CANCER | + - | | | 20 | 35 | 0 | 0 | | | | | OIL SPILLS | Gallons oil | | | |
| | | TOTAL | | | | 226 | 241 | 4 | 5 | | | | | | spill (1000s) | | | |
| | | INDUSTRY STRESS | | | | 220 | 241 | 4 | 3 | | | | | | Decline in | | | |
| | | AGRICULTURE | + + | 40 | 250 | | | | | | | | | BIODIVERSITY | biological richn | ess | | |
| | (3/2) | FISHERIES | + + | 35 | 250 | | | | | | | | | | Valume of | | | |
| | 8 | FORESTRY | | 55 | 230 | | | | | | | | | WATER water to treat | | | | |
| | | TOTAL | | 75 | 500 | | | | | | | | | | (millions m³) | | | |
| | | CARBON TOTAL | | 115 | 765 | 226 | 241 | 4 | 5 | | | | | | | | | |
| | | DARESON TOTAL | | 110 | 100 | | | | | | | | | | | | | |