# **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: OMAN**

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



2010 **0.9%**<sub>GDP</sub> 2030 **2.1%**<sub>GDP</sub>

CARBON INTENSIVENESS LOSSES PER YEAR

2010 **NIL** 2030 NIL



## **HUMAN NATIONAL LOSS TOTALS: OMAN**

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

ΔΠΠΙΤΙΠΝΔΙ

ADDITIONAL MORTALITY-YEARLY AVERAGE

CLIMATE +CARBON

2010 550 2030 1,000 🙀 CLIMATE

ΔΠΠΙΤΙΠΝΔΙ

🔊 CARBON

2010 **50,000** 

ADDITIONAL PERSONS AFFECTED-YEARLY AVERAGE

2030 **55,000** 

2010 6,000

2030 10,000

## **FULL COUNTRY ASSESSMENT: OMAN**

|         |            |                                | VULNERABILITY<br>LEVEL              | ADDITIONAL<br>ECONOMIC COSTS<br>(MILLION USD PPP) |         | ADDITIONAL<br>MORTALITY |         | ADDITIONAL<br>AFFECTED<br>POPULATION (1000s) |      | OTHER<br>VALUE 1* |        | OTHER<br>VALUE 2* |      |   |                                       |            |  |  |
|---------|------------|--------------------------------|-------------------------------------|---|---------|-------------------------|---------|--|------|-------------------|--------|-------------------|------|---|---------------------------------------|------------|--|--|
|         |            |                                | 2010 2030                           | 2010  | 2030    | 2010                    | 2030    | 2010   | 2030 | 2010              | 2030   | 2010              | 2030 |   |                                       |            |  |  |
| CLIMATE |            | <b>ENVIRONMENTAL DISASTERS</b> | ENTAL DISASTERS VULNERABILITY LEVEL |   |         |                         |         |  |      |                   |        |                   |      |   |                                       |            |  |  |
|         |            | DROUGHT                        |                                     | 1   | 5       |                         |         |  |      |                   |        |                   |      | + Acute+  | + High-                               | -          |  |  |
|         |            | FLOODS AND LANDSLIDES          |                                     |   | 1       |                         | 1       | 1  | 3    |                   |        |                   |      | Acute-  | - High-                               |            |  |  |
|         | - T        | STORMS                         | - +                                 | 75  | 550     |                         |         |  |      |                   |        |                   |      | - Severe+   | Mode                                  | rate       |  |  |
|         |            | WILDFIRES                      |                                     |   |         |                         |         |  |      |                   |        |                   |      | _   | _                                     | rate       |  |  |
|         |            | TOTAL                          |                                     | 76  | 556     | 0                       | 1       | 1  | 3    |                   |        |                   |      | - Severe-   | Low                                   |            |  |  |
|         |            | HABITAT CHANGE                 |                                     |   |         |                         |         |  |      |                   |        |                   |      |   |                                       |            |  |  |
|         |            | BIODIVERSITY                   | + +                                 | 200   | 1,750   |                         |         |  |      | -2,000            | -3,750 | 30                | 80   | + = Upper tier  | + = Upper tier of vulnerability level |            |  |  |
|         |            | DESERTIFICATION                |                                     |   |         |                         |         |  | 0    |                   |        |                   |      | <ul> <li>= Lower tier of vulnerability level</li> </ul> |                                       |            |  |  |
|         |            | HEATING AND COOLING            |                                     | 45  | 550     |                         |         |  |      | 350               | 1,250  | 250               | 800  |   |                                       |            |  |  |
|         |            | LABOUR PRODUCTIVITY            |                                     | 25  | 150     |                         |         |  |      | 26                | 18     |                   |      | A Environme   | ental disastors                       |            |  |  |
|         |            | PERMAFROST                     |                                     |   |         |                         |         |  |      |                   |        |                   |      | <u> </u>  |                                       |            |  |  |
|         |            | SEA-LEVEL RISE                 |                                     | 100   | 600     |                         |         | 0  | 0    | 10                | 20     |                   |      | 🚹 Habitat ch  | ange                                  |            |  |  |
|         |            | WATER                          |                                     | -25   | -200    |                         |         |  |      |                   | -0     |                   |      | Health impact   |                                       |            |  |  |
|         | 1 1        | TOTAL                          |                                     | 345   | 2,850   |                         |         | 0  | 0    |                   |        |                   |      | (N) Industru stress                                     |                                       |            |  |  |
|         |            | HEALTH IMPACT                  |                                     |   |         |                         |         |  |      |                   |        |                   |      | - Industry stress                                       |                                       |            |  |  |
|         |            | DIARRHEAL INFECTIONS           |                                     |   |         | 1                       | 0       | 0  |      |                   |        |                   |      |   |                                       |            |  |  |
|         |            | HEAT AND COLD ILLNESSES        |                                     |   |         | 10                      | 15      |  | _    |                   |        |                   |      | CLIMATE =   |                                       |            |  |  |
|         | lacksquare | HUNGER                         |                                     |   |         | 1                       | 5       | 0  | 0    |                   |        |                   |      | _   | to Climate Cha                        |            |  |  |
|         |            | MALARIA AND VECTOR-BORNE       |                                     |   |         | 1                       | 4       | 0  | 0    |                   |        |                   |      | CARBON =  |                                       |            |  |  |
|         |            | MENINGITIS                     |                                     |   |         | 12                      | 1<br>21 | 0  | 0    |                   |        |                   |      |   | to Carbon Inter                       | nsiveness  |  |  |
|         | l i        | TOTAL<br>INDUSTRY STRESS       |                                     |   |         | 12                      | 21      | U  | U    |                   |        |                   |      |   |                                       |            |  |  |
|         |            | AGRICULTURE                    |                                     | 60  | 500     |                         |         |  |      |                   |        |                   |      |   | OTHER                                 | OTHER      |  |  |
|         |            | FISHERIES                      |                                     | 200   | 2,000   |                         |         |  |      |                   |        |                   |      |   | VALUE 1                               | VALUE 2    |  |  |
|         | (1)        | FORESTRY                       |                                     | 200   | 2,000   |                         |         |  |      |                   |        |                   |      |   | Contraction                           | Decline in |  |  |
|         |            | HYDRO ENERGY                   |                                     |   |         |                         |         |  |      |                   |        |                   |      | BIODIVERSITY  | of biological<br>zones (km²)          | biological |  |  |
|         |            | TOURISM                        |                                     |   |         |                         |         |  |      |                   |        |                   |      |   | (cumulative)                          | richness   |  |  |
|         |            | TRANSPORT                      |                                     |   |         |                         |         |  |      |                   |        |                   |      | DESERTI-  | Additional land                       |            |  |  |
|         |            | TOTAL                          |                                     | 260   | 2,500   |                         |         |  |      |                   |        |                   |      | FICATION  | degraded (km²)                        |            |  |  |
|         |            | CLIMATE TOTAL                  |                                     | 681   | 5,906   | 12                      | 21      | 1  | 3    |                   |        |                   |      |   | (cumulative)                          |            |  |  |
|         |            |                                |                                     |   | 7       |                         |         |  |      |                   |        |                   |      | HEATING & COOLING                                       | Change in ener<br>load (GWh)          | 99         |  |  |
| CARBON  |            | ENVIRONMENTAL DISASTERS        |                                     |   |         |                         |         |  |      |                   |        |                   |      |   |                                       |            |  |  |
|         |            | OIL SANDS                      |                                     |   |         |                         |         |  |      |                   |        |                   |      | LABOUR  | Share of<br>workforce                 |            |  |  |
|         | ₩          | OIL SPILLS                     |                                     |   |         |                         |         |  |      |                   |        |                   |      | PRODUCTIVITY  |                                       |            |  |  |
|         | l i        | TOTAL                          |                                     | 0   | 0       |                         |         |  |      |                   |        |                   |      | affected (9   |                                       |            |  |  |
|         |            | HABITAT CHANGE                 |                                     | 40  | 70      |                         |         |  |      |                   | -      |                   |      | SEA-LEVEL   | Net loss of                           |            |  |  |
|         |            | BIODIVERSITY<br>CORROSION      |                                     | 10  | 70<br>1 |                         |         |  |      | 1                 | 5      |                   |      | RISE  | land (km²)<br>(cumulative)            |            |  |  |
|         |            | WATER                          |                                     |   |         |                         |         |  |      |                   |        |                   |      |   | Loss in water                         |            |  |  |
|         |            | TOTAL                          |                                     | 10  | 71      |                         |         |  |      |                   |        |                   |      | WATER   | runoff 2030                           |            |  |  |
|         | l i        | HEALTH IMPACT                  |                                     | 10  | 71      |                         |         |  |      |                   |        |                   |      |   | (km³)                                 |            |  |  |
|         |            | AIR POLLUTION                  |                                     |   |         | 400                     | 750     | 4  | 10   |                   |        |                   |      |   | Tonnes toxic                          |            |  |  |
|         |            | INDOOR SMOKE                   |                                     |   |         | 150                     | 200     | 0  | 1    |                   |        |                   |      | OIL SANDS   | waste (1000s)                         |            |  |  |
|         |            | OCCUPATIONAL HAZARDS           |                                     |   |         | 1                       | 5       | 0  | 1    |                   |        |                   |      |   |                                       |            |  |  |
|         |            | SKIN CANCER                    |                                     |   |         | 5                       | 15      | 0  | 0    |                   |        |                   |      | OIL SPILLS  | Gallons oil<br>spill (1000s)          |            |  |  |
|         |            | TOTAL                          |                                     |   |         | 556                     | 970     | 6  | 12   |                   |        |                   |      |   | spill (1000s)                         |            |  |  |
|         | 1 1        | INDUSTRY STRESS                |                                     |   |         | 000                     | 370     | Ū  | 12   |                   |        |                   |      | DIODILIEDOITI.  | Decline in                            |            |  |  |
|         |            | AGRICULTURE                    |                                     | -5  | -200    |                         |         |  |      |                   |        |                   |      | BIODIVERSITY  | biological richn                      | ess        |  |  |
|         |            | FISHERIES                      |                                     |   | 1       |                         |         |  |      |                   |        |                   |      |   | Volume of                             |            |  |  |
|         | 2          | FORESTRY                       |                                     |   | •       |                         |         |  |      |                   |        |                   |      | WATER water to treat                                    |                                       |            |  |  |
|         |            | TOTAL                          |                                     | -5  | -199    |                         |         |  |      |                   |        |                   |      |   | (millions m³)                         |            |  |  |
|         |            | CARBON TOTAL                   |                                     | 5   | -128    | 556                     | 970     | 6  | 12   |                   |        |                   |      |   |                                       |            |  |  |
|         |            |                                |                                     |   |         |                         |         |  |      |                   |        |                   |      |   |                                       |            |  |  |