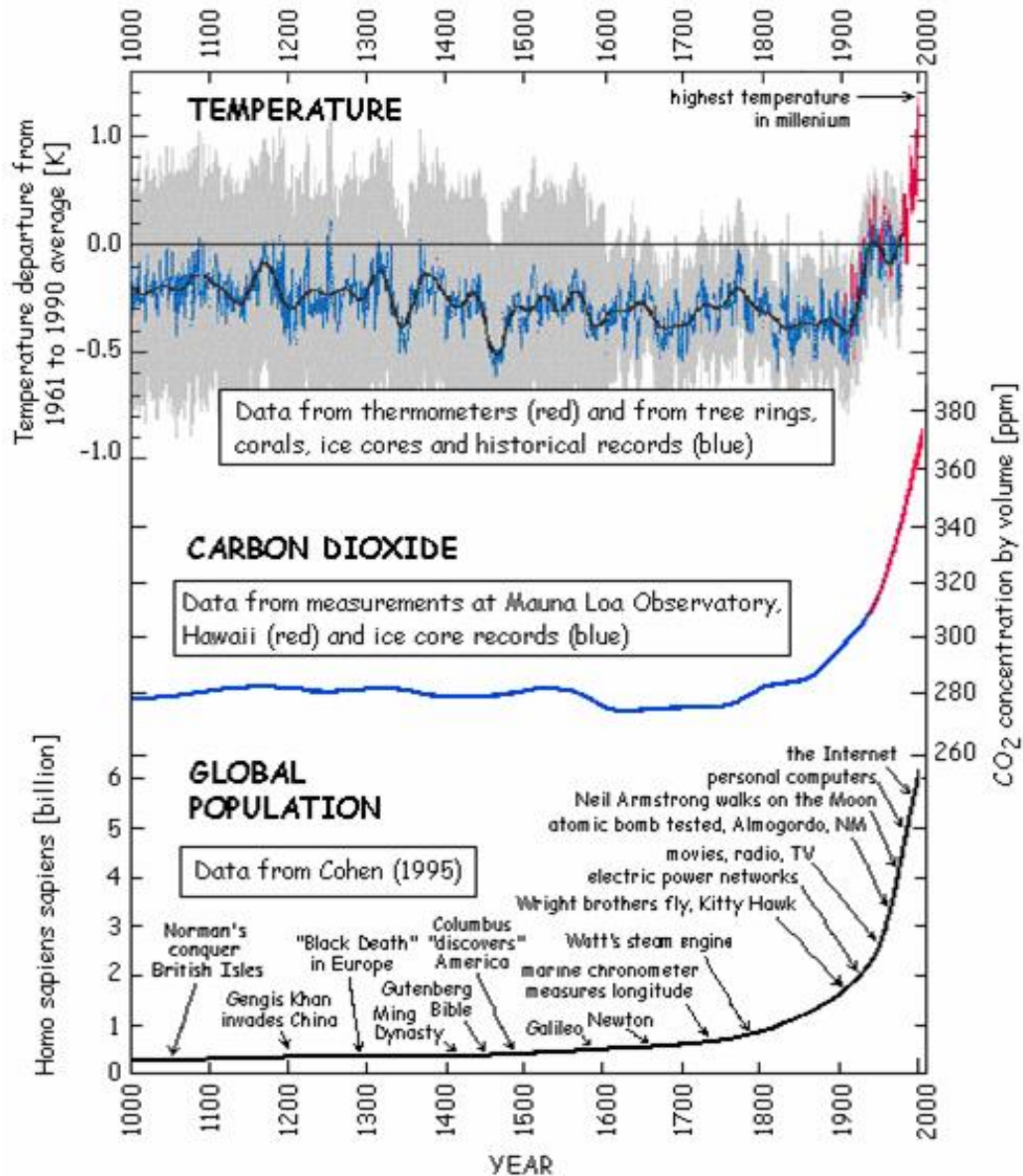
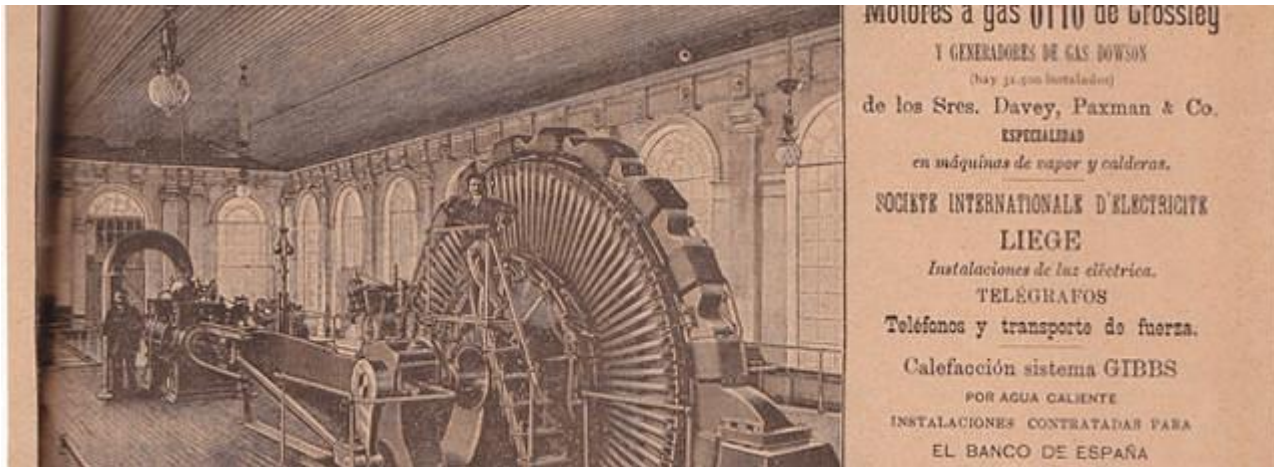


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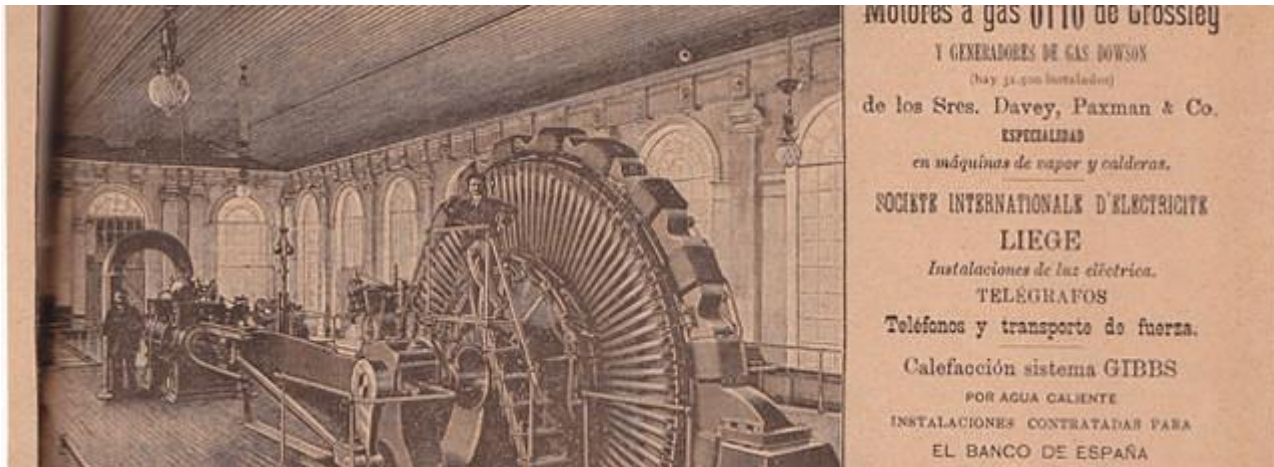
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PRIMERA XARXA ENLLUMENAT?



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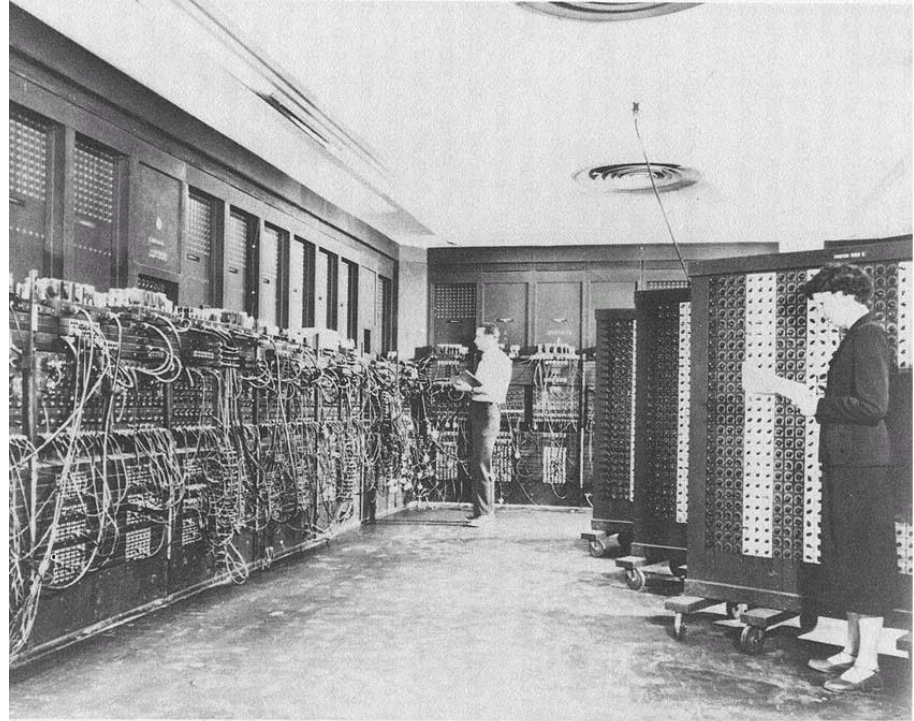


PRIMERA XARXA ENLLUMENAT?

GIRONA 1886



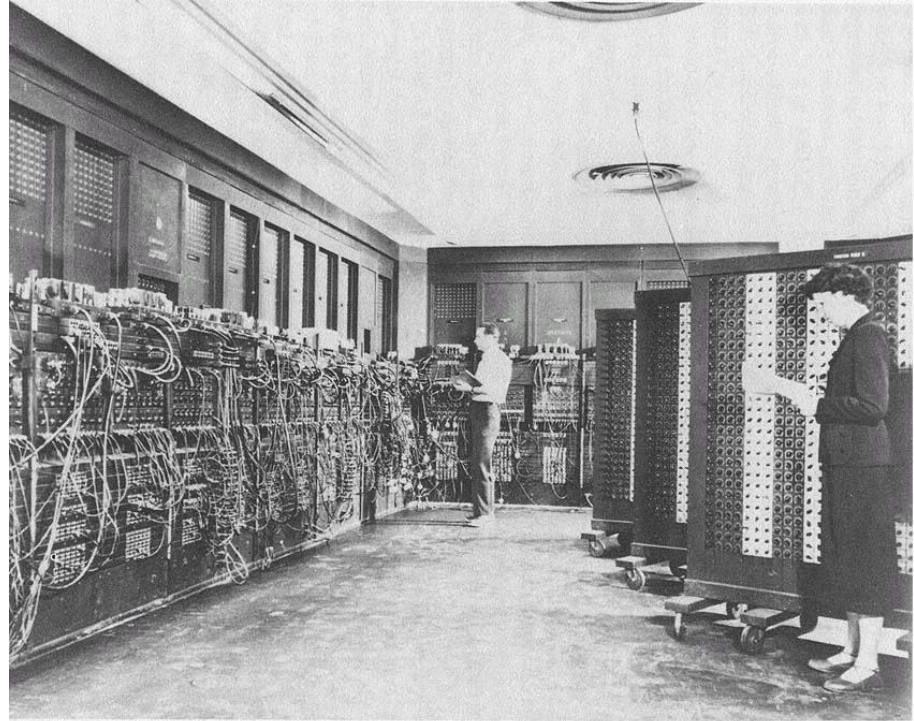
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*The ENIAC.
Smithsonian Institution Photo No. 53192.*

PRIMER PRONÒSTIC PER ORDINADOR?

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*The ENIAC.
Smithsonian Institution Photo No. 53192.*

PRIMER PRONÒSTIC PER ORDINADOR?

ENIAC 1945

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PRIMER COTXE FABRICAT A ESPANYA?

EL CLIMA DEL 2030



PRIMER COTXE FABRICAT A ESPANYA?

1953 SEAT 1400

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QUAN ES VA INVENTAR INTERNET?

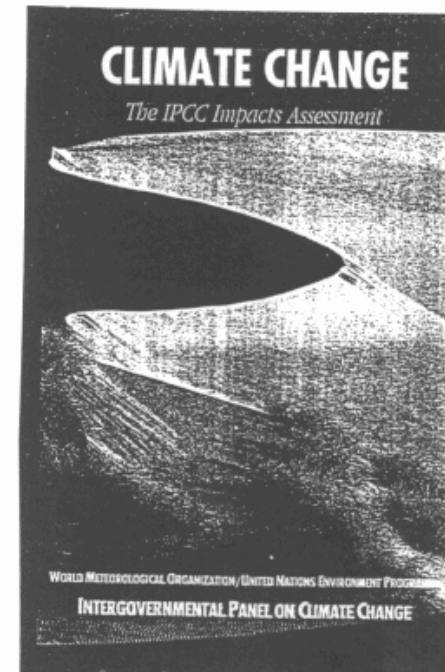
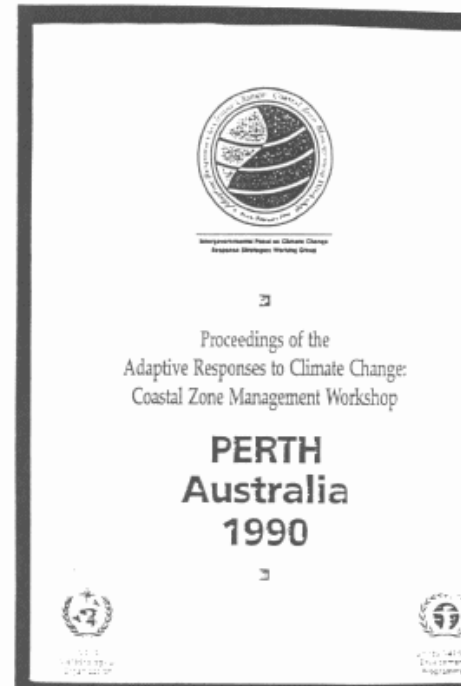
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QUAN ES VA INVENTAR INTERNET?

CERN, GINEBRA 1990

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RCP 8.5	Rising radiative forcing pathway leading to 8.5 W/m ² in 2100.
RCP 6	Stabilization without overshoot pathway to 6 W/m ² at stabilization after 2100
RCP 4.5	Stabilization without overshoot pathway to 4.5 W/m ² at stabilization after 2100
RCP 3-PD2	Peak in radiative forcing at ~ 3 W/m ² before 2100 and decline

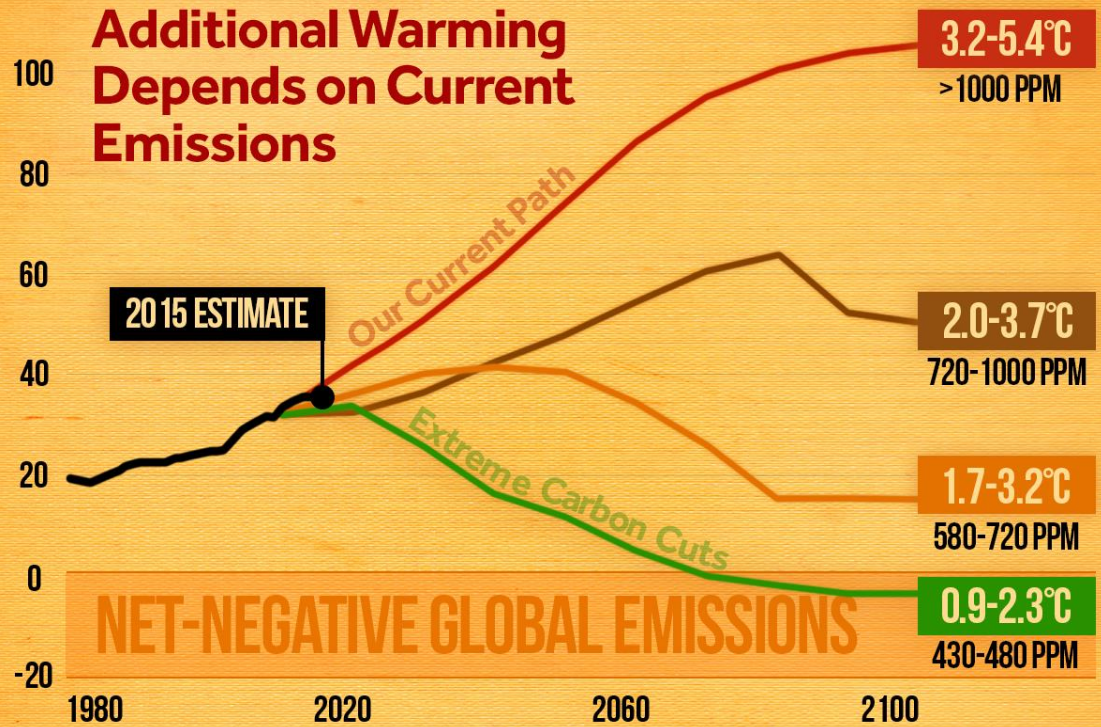
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RCP 8.5

RCP 6

RCP 4.5

RCP 3-PD2

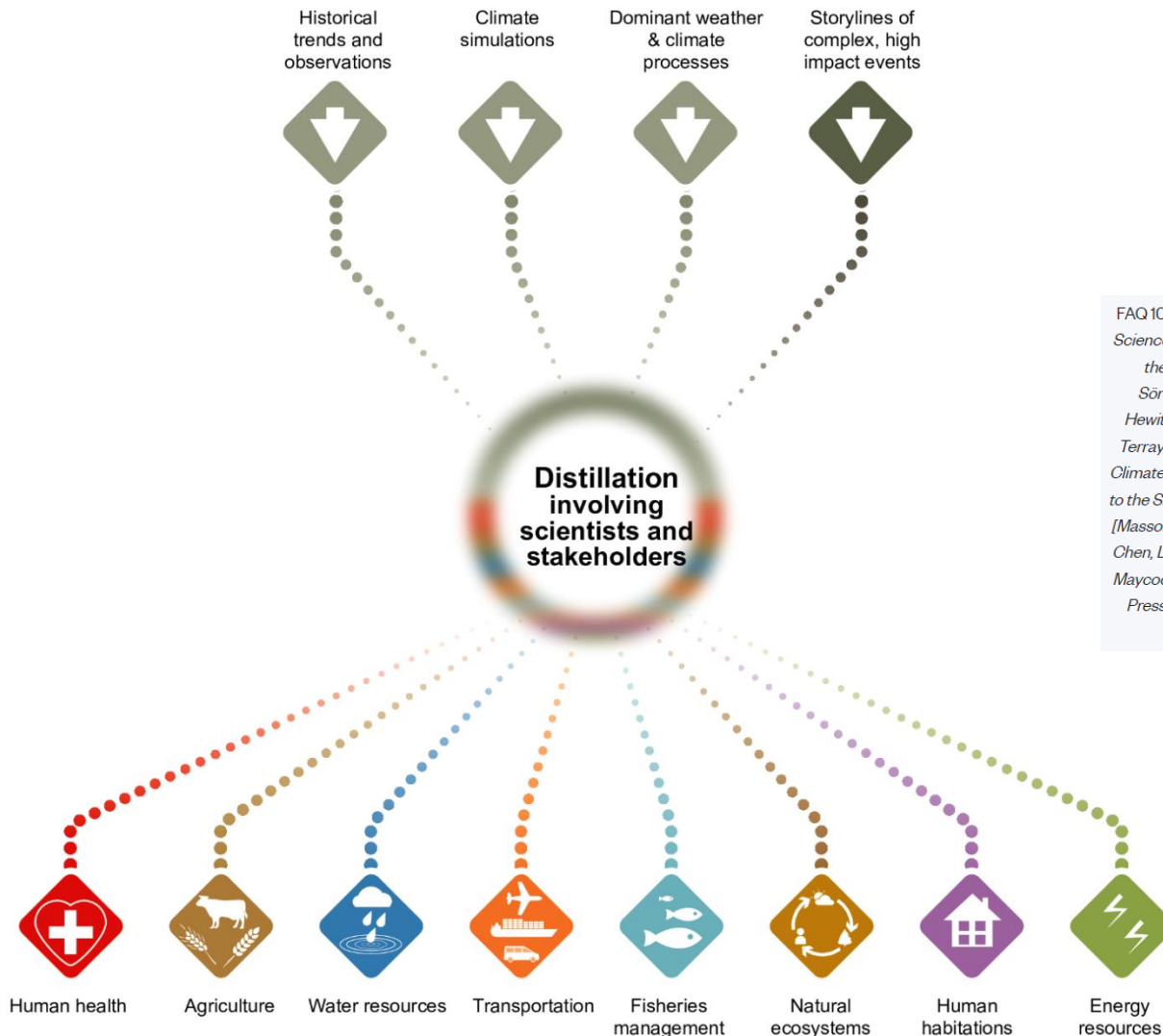


Emissions based on billions of tons of CO2 per year from fossil fuels and cement
Source: UNEP. 2014 Emissions Gap Report.

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FAQ 10.1: How can scientists provide useful regional climate information?

In decision-making, climate information is more useful if the physical and cultural diversity across the world is considered.



FAQ 10.1 Figure 1 in IPCC, 2021: Chapter 10. In: *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [Doblas-Reyes, F.J., A.A. Sörensson, M. Almazroui, A. Dosio, W.J. Gutowski, R. Haarsma, R. Hamdi, B. Hewitson, W.-T. Kwon, B.L. Lamprey, D. Maraun, T.S. Stephenson, I. Takayabu, L. Terray, A. Turner, and Z. Zuo, 2021: *Linking Global to Regional Climate Change. In Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 1363-1512, doi: [10.1017/9781009157896.012](https://doi.org/10.1017/9781009157896.012).]

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(d) Mediterranean summer vs global warming

Baseline period is 1861-1900

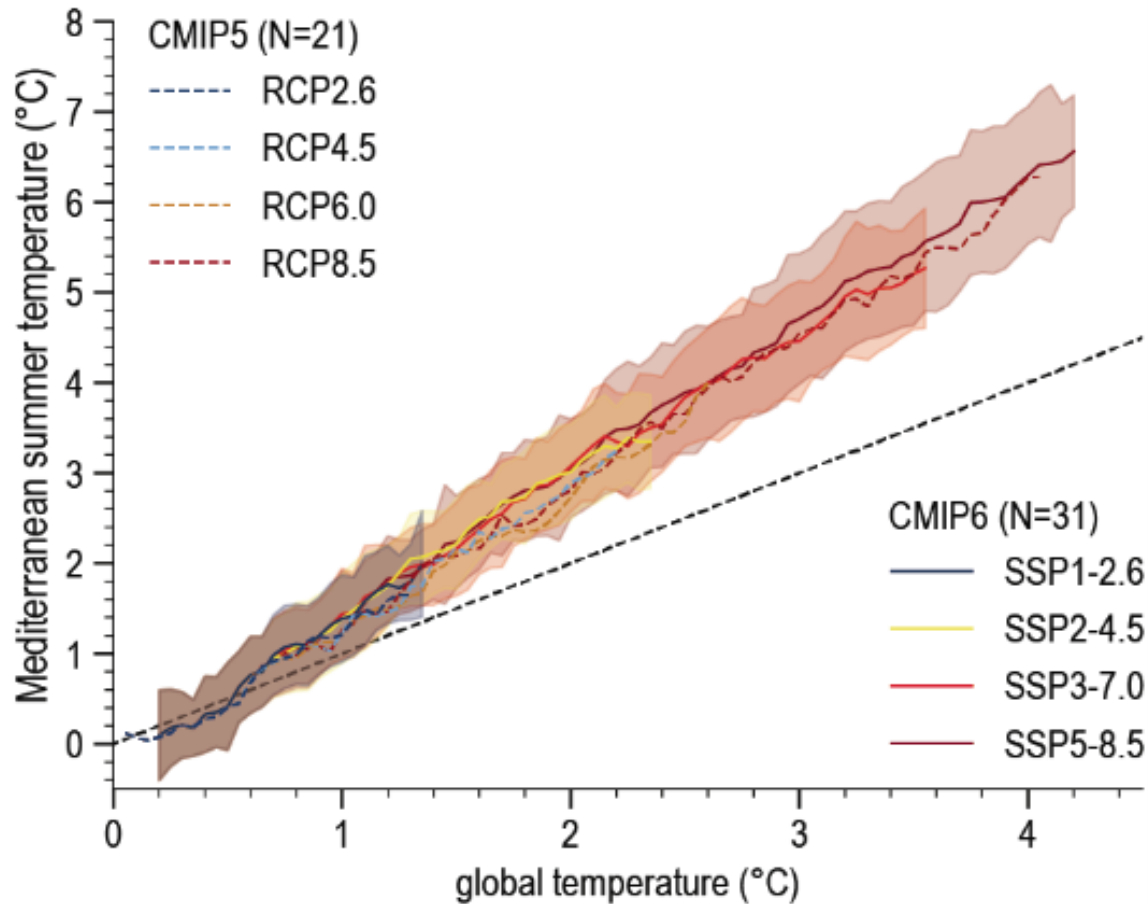
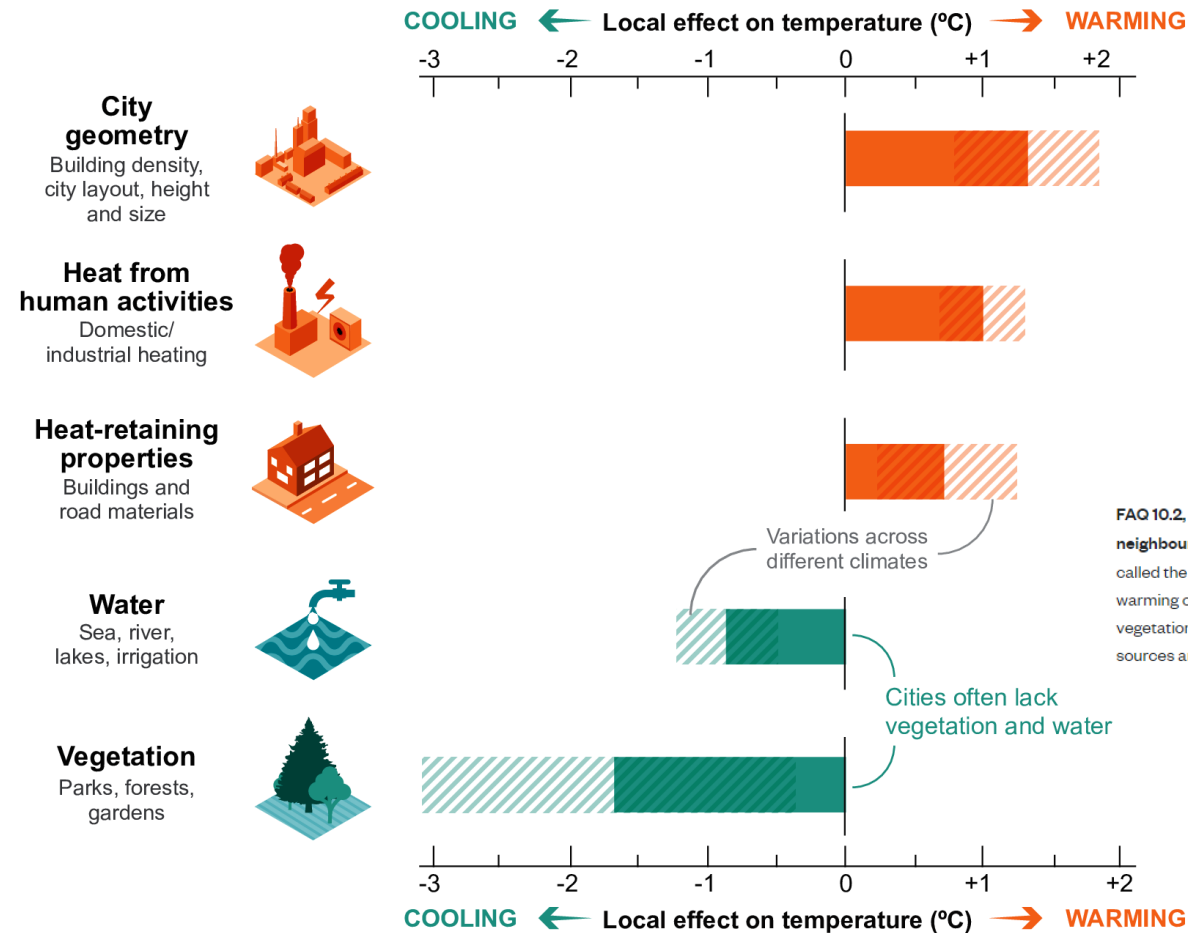


Figure 10.21 in IPCC, 2021: Chapter 10. In: *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [Doblas-Reyes, F.J., A.A. Sörensson, M. Almazroui, A. Dosio, W.J. Gutowski, R. Haarsma, R. Hamdi, B. Hewitson, W.-T. Kwon, B.L. Lamptey, D. Maraun, T.S. Stephenson, I. Takayabu, L. Terray, A. Turner, and Z. Zuo, 2021: Linking Global to Regional Climate Change. In *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 1363–1512, doi: 10.1017/9781009157896.012.]

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FAQ 10.2: Why are cities the hotspots of global warming?

Cities are usually warmer than their surrounding areas due to **factors that trap and release heat** and a lack of **natural cooling influences**, such as water and vegetation.



FAQ 10.2, Figure 1 | Efficiency of the various factors at warming up or cooling down neighbourhoods of urban areas. Overall, cities tend to be warmer than their surroundings. This is called the 'urban heat island' effect. The hatched areas on the bars show how the strength of the warming or cooling effects of each factor varies depending on the local climate. For example, vegetation has a stronger cooling effect in temperate and warm climates. Further details on data sources are available in the chapter data table (Table 10.SM.11).

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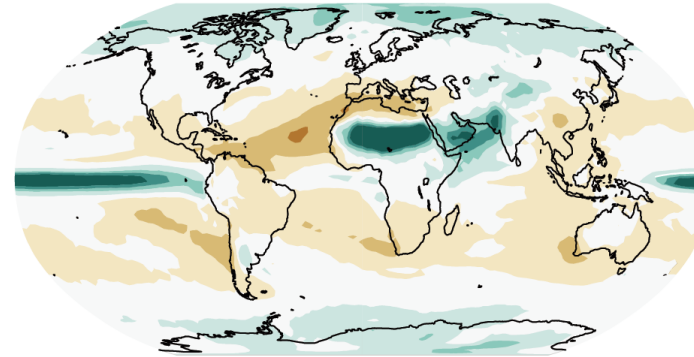
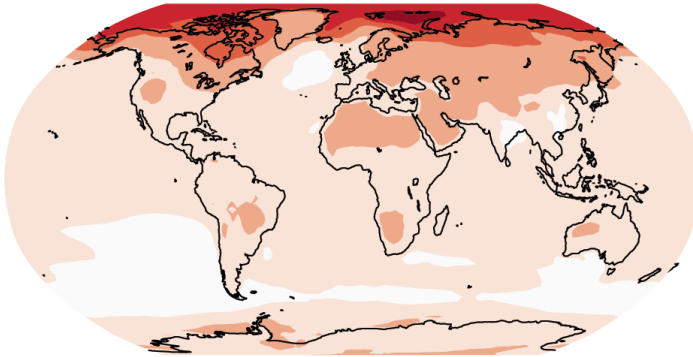
FAQ 4.3: Climate change and regional patterns

Climate change is not uniform and proportional to the level of global warming.

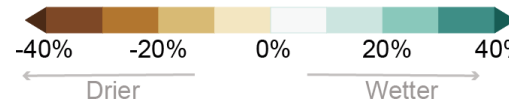
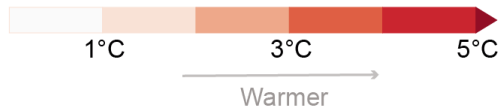
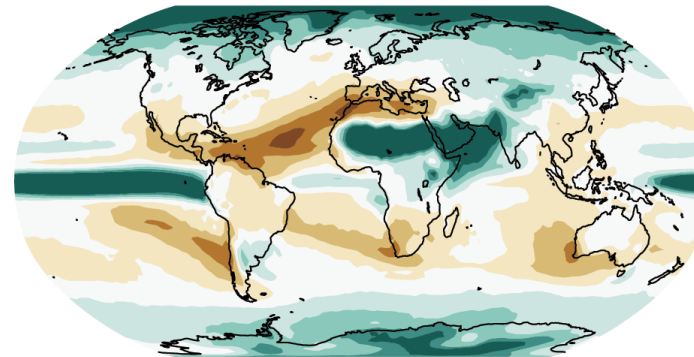
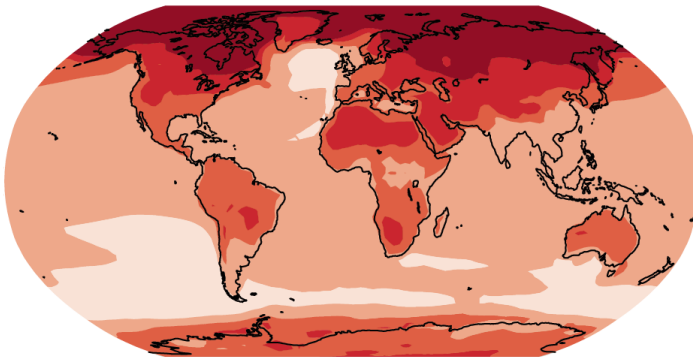
Warming will be **stronger** in the Arctic, on land and in the Northern Hemisphere

Precipitation will **increase** in high latitudes, the tropics and monsoon regions and **decrease** in the subtropics

+1.5°C



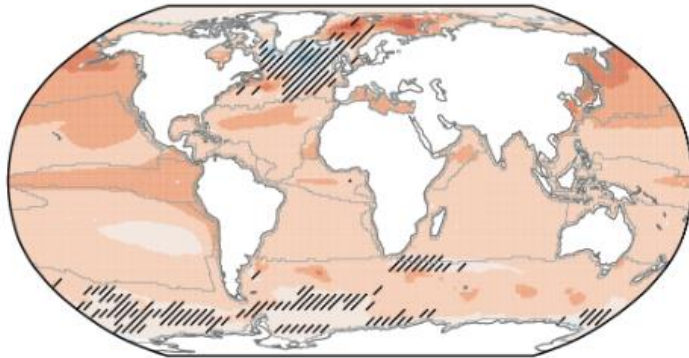
+3.0°C



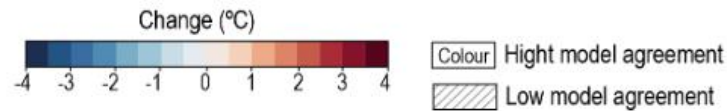
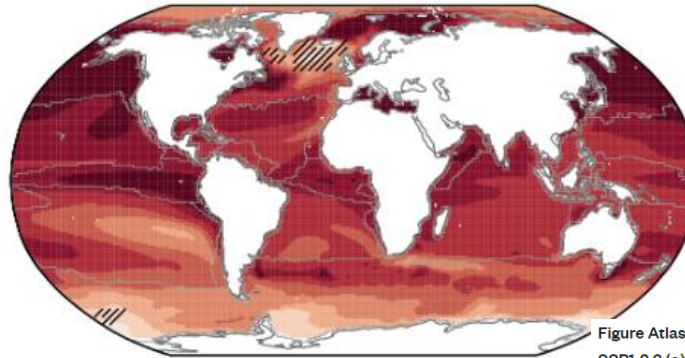
FAQ 4.3, Figure 1 in IPCC, 2021: Chapter 4. In: *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [Lee, J.-Y., J. Marotzke, G. Bala, L. Cao, S. Corti, J.P. Dunne, F. Engelbrecht, E. Fischer, J.C. Fyfe, G. Jones, A. Maycock, J. Muirerni, O. Ndiaye, S. Panickal, and T. Zhou, 2021: *Future Global Climate: Scenario-Based Projections and Near-Term Information. In Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 553–872, doi: 10.1017/9781009167896.006.]

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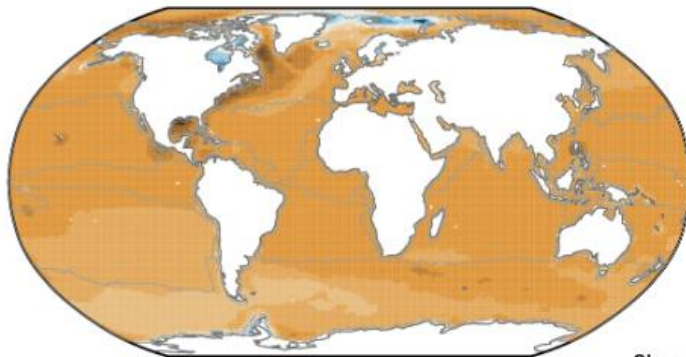
(a) SST for 2081–2100 (SSP1-2.6) rel. to 1995–2014



(b) SST for 2081–2100 (SSP5-8.5) rel. to 1995–2014



(c) SLR change for 2081–2100 (SSP1-2.6)



(d) SLR change for 2081–2100 (SSP5-8.5)

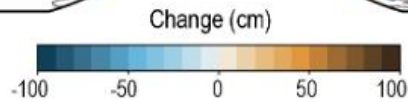
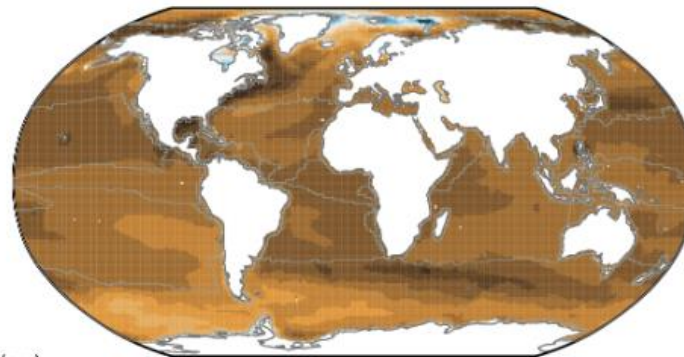
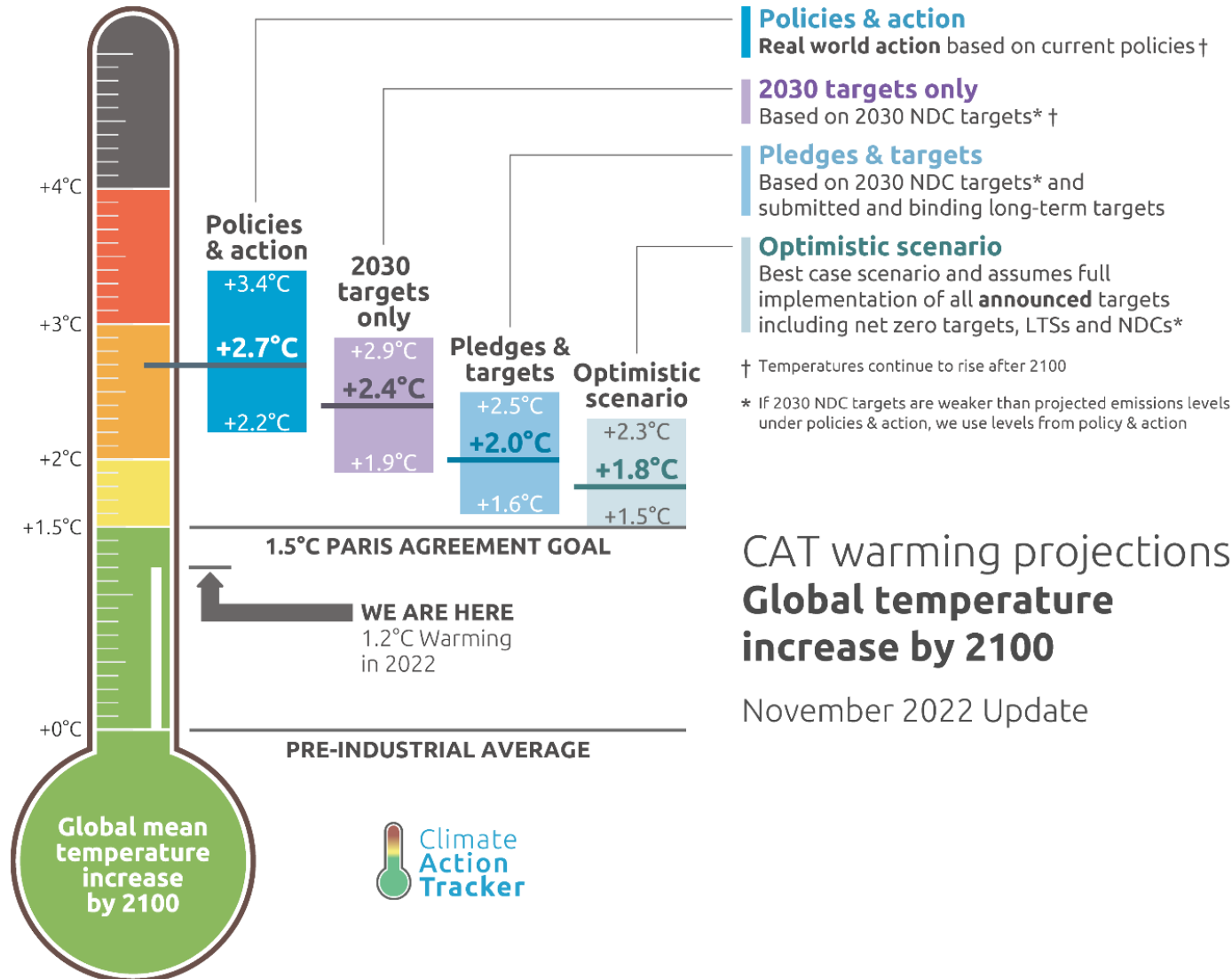


Figure Atlas.12 | Global temperature changes projected for mid-century under SSP1-2.6 (a) and SSP3-7.0 (c) compared with a 2°C global warming level (b) and the end of the century under SSP3-7.0 (d) from the CMIP6 ensemble. Note that the future period warmings are calculated against a baseline period of 1995–2014 whereas the global mean warming level is defined with respect to the baseline period of 1851–1900 used to define global warming levels. The other three SSP-based maps would show greater warmings with respect to this earlier baseline. Further details on data sources and processing are available in the chapter data table (Table Atlas.SM.15).

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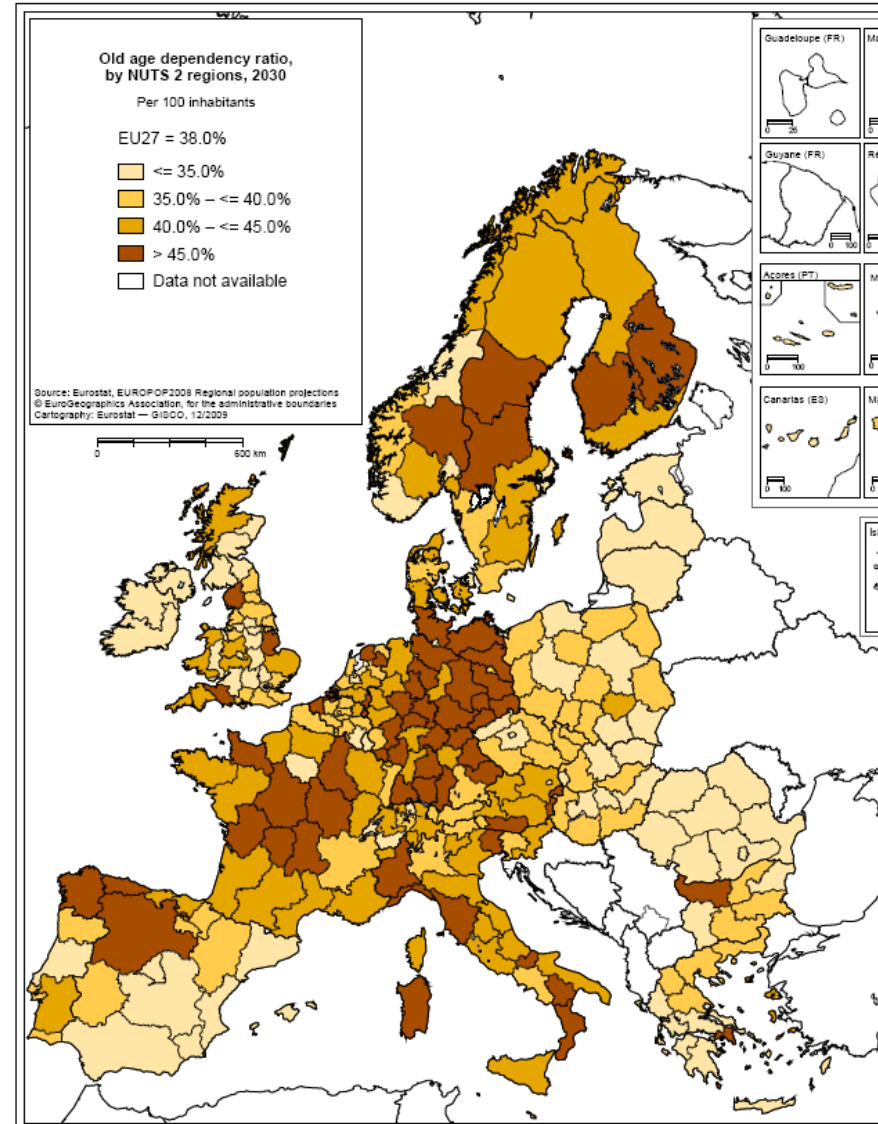
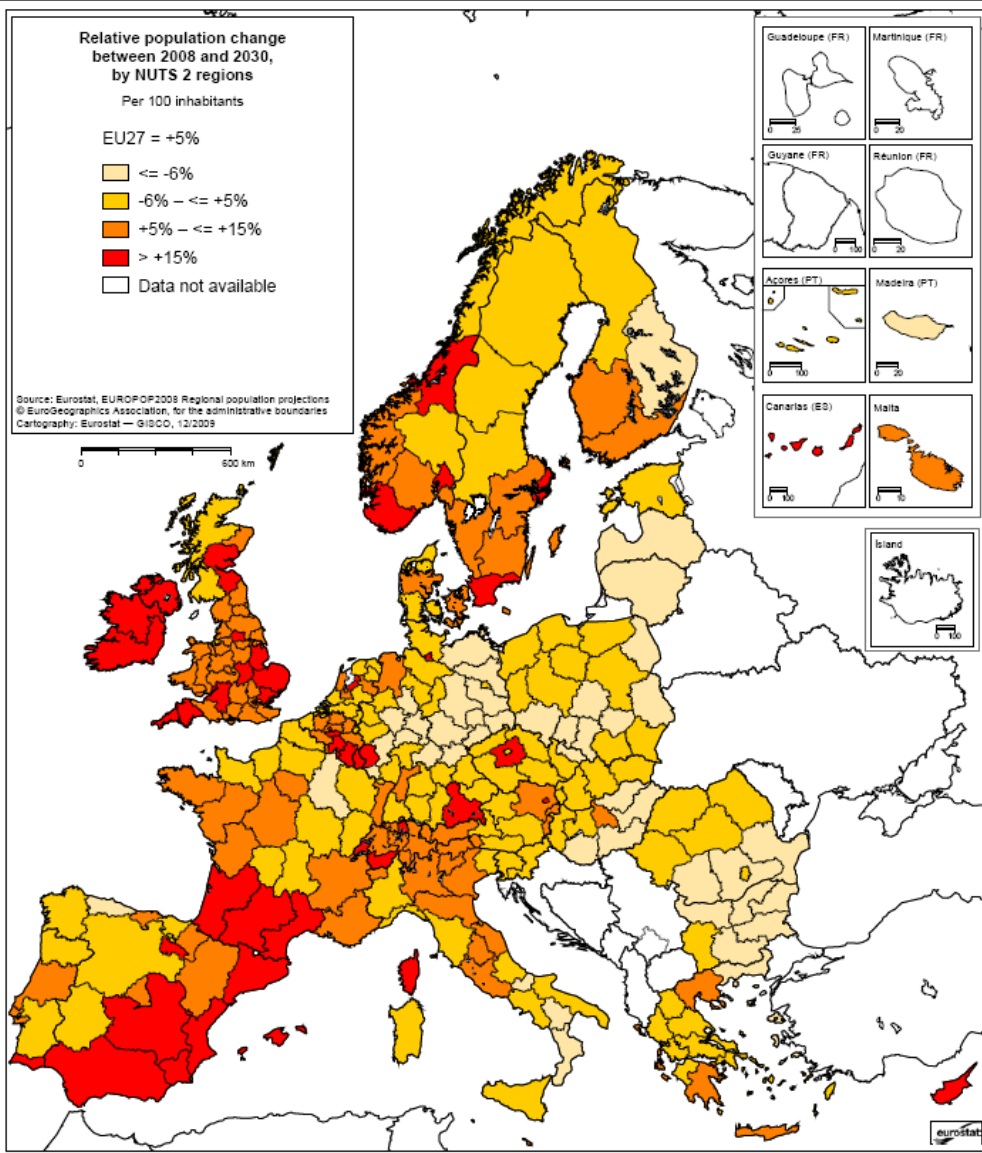


CAT warming projections
Global temperature increase by 2100

November 2022 Update



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For Norway and Switzerland level 2 statistical regions
Source: Eurostat, regional EUROPOP2008

For Norway and Switzerland level 2 statistical regions

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