



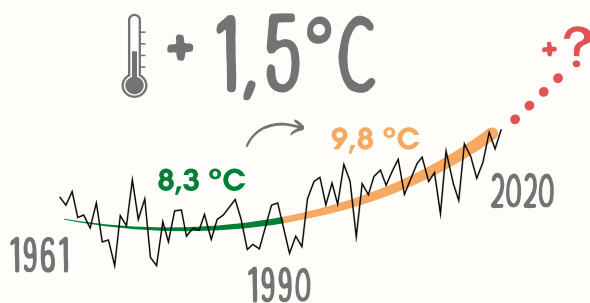
CLIMATE CHANGE IN LUXEMBOURG



AVERAGE AIR TEMPERATURES:

Clear increase!

(Data from
Meteolux)



WHAT FUTURE INCREASE?

Between **+1,1°C** and **+3,7°C**
until the end of the 21st century.

Climate projection models (LIST)



Strong increase in...

... **heat days** ($\geq 30^{\circ}\text{C}$)

... **extreme heat days** ($\geq 35^{\circ}\text{C}$)

PRECIPITATION



Annual average = constant, but:

- an increasing variability

↗ rain in winter

↘ rain in summer

- more **heavy rain events**



GROUND COVERED WITH SNOW:

1961 – 1990 : 41 days

1991 – 2020 : 25 days

(Averages – Meteolux)



- 16 DAYS

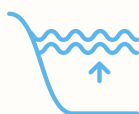


WHAT ABOUT SEA LEVEL RISE?

Not a direct threat
to Luxembourg...

But indirectly:

Massive climatic migrations?



MORE DRY PERIODS



↗ Risk of forest fires



↗ Water requirements for agriculture



Endangerment of wetland habitats



↗ Energy requirement for cooling



MORE EXTREME WEATHER EVENTS

Increased risk of flooding



Property damage



**LAGS IN THE
GROWING SEASONS
OF MANY PLANTS**



**MODIFICATION OF THE
BIOLOGICAL CYCLES
OF MANY ANIMALS**

= Disruption of interactions between
animal and plant species



Altered species
distribution



↗ Invasive species



Appearance of new pathogens



ECOLOGICAL DISTURBANCES

↗ Water temperature



↘ Chemical and biological quality of watercourses



↘ Soil fertility and physical stability

