



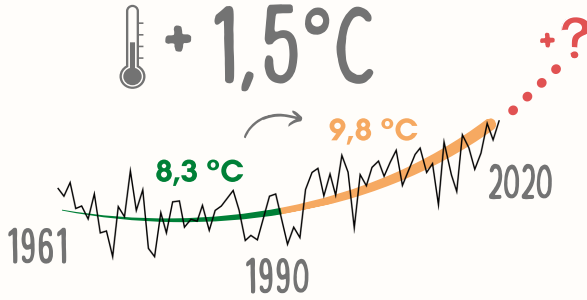
CLIMATE CHANGE IN LUXEMBOURG



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)



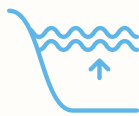
- 16 DAYS

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



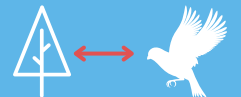
LAGS IN THE GROWING SEASONS OF MANY PLANTS



MODIFICATION OF THE BIOLOGICAL CYCLES OF MANY ANIMALS



= Disruption of interactions between animal and plant species



Altered species distribution



↗ Invasive species



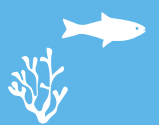
Appearance of new pathogens



ECOLOGICAL DISTURBANCES

↗ Water temperature

↘ Chemical and biological quality of watercourses



↘ Soil fertility and physical stability

