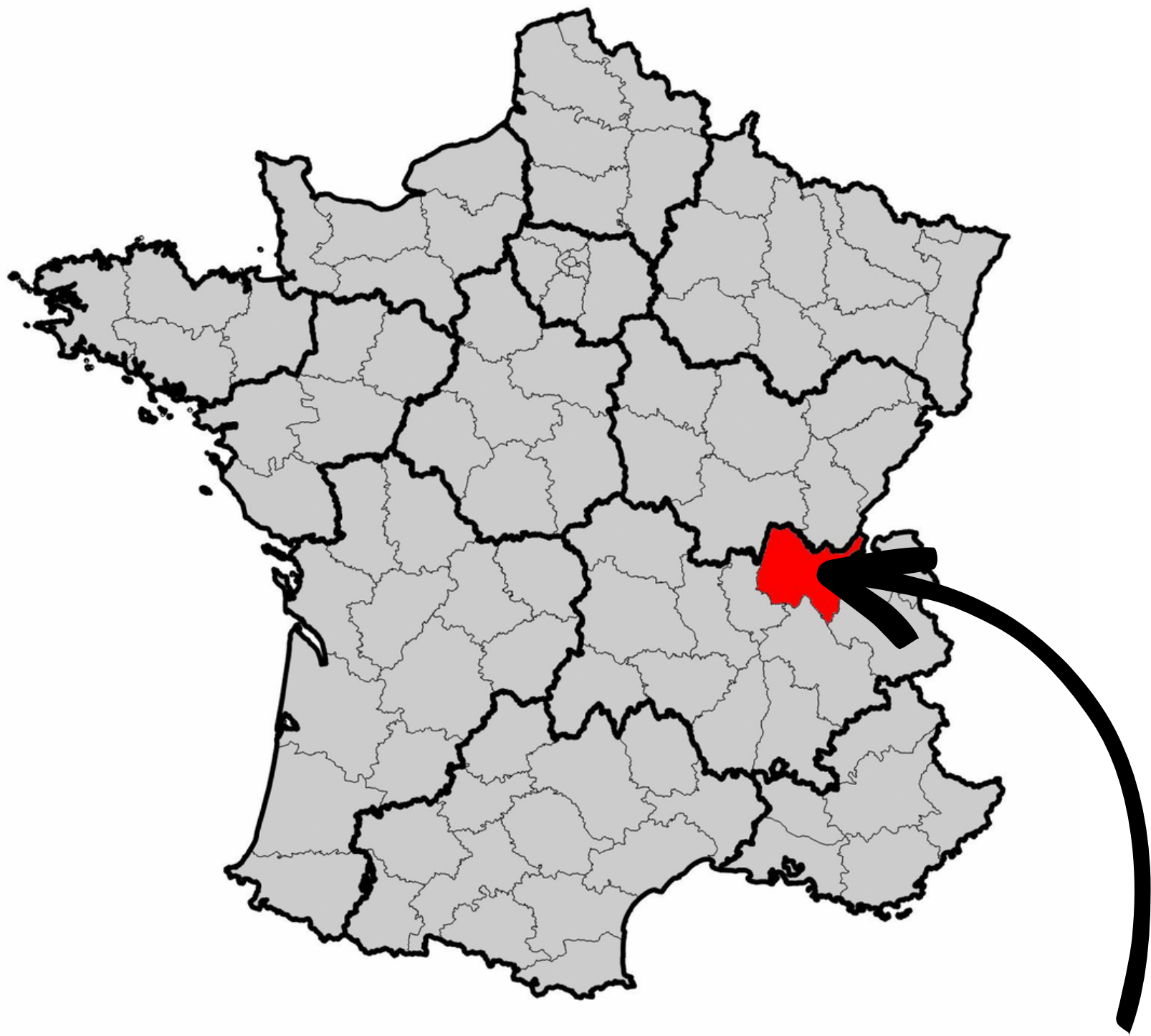




ERASMUS PROJECT

Forests & global warming



Introduction : vocabulary

- climate
- global warming
- forest

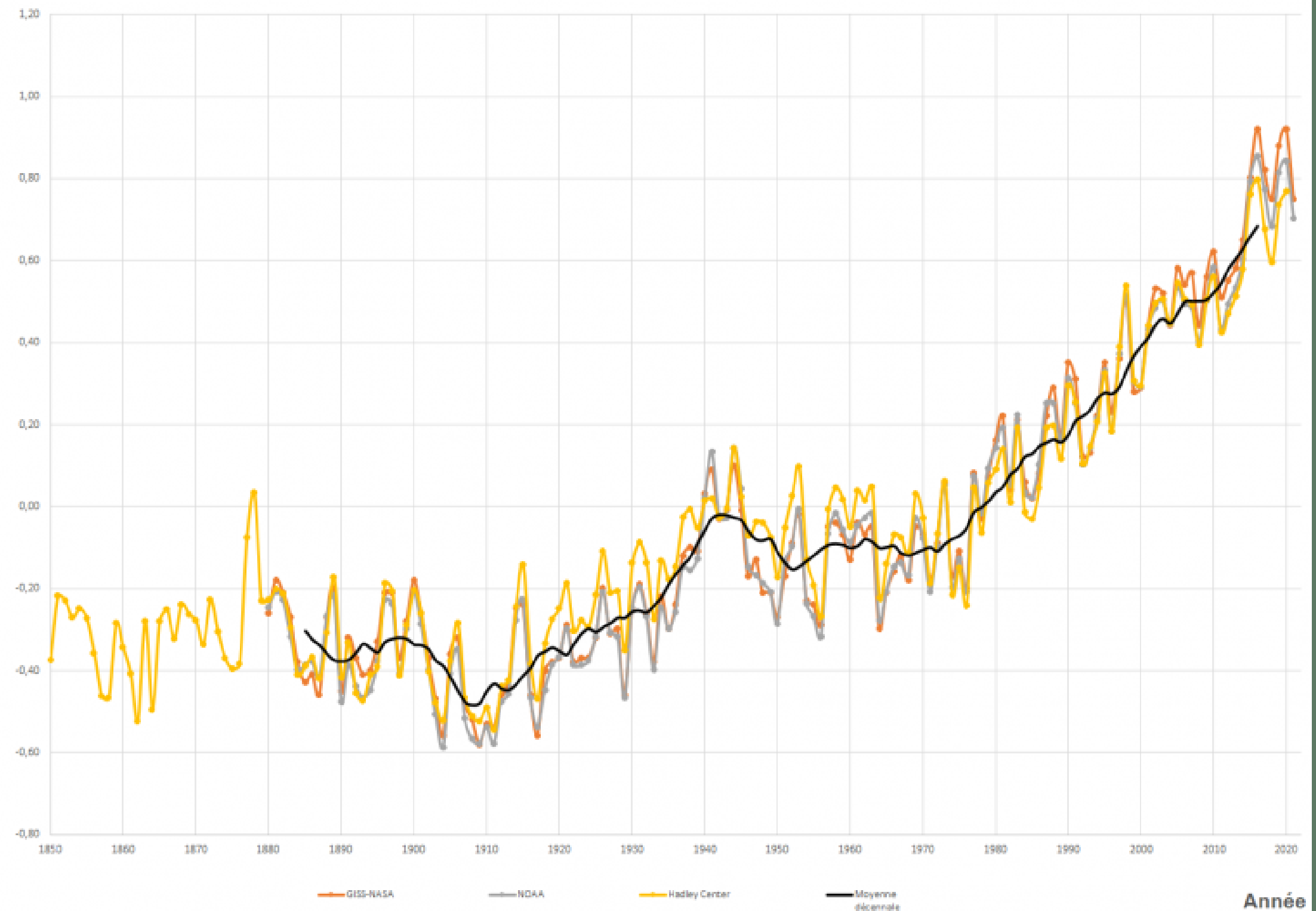


Introduction : vocabulary

Global warming :



evolution of global average temperatures from 1850 to 2020



Summary



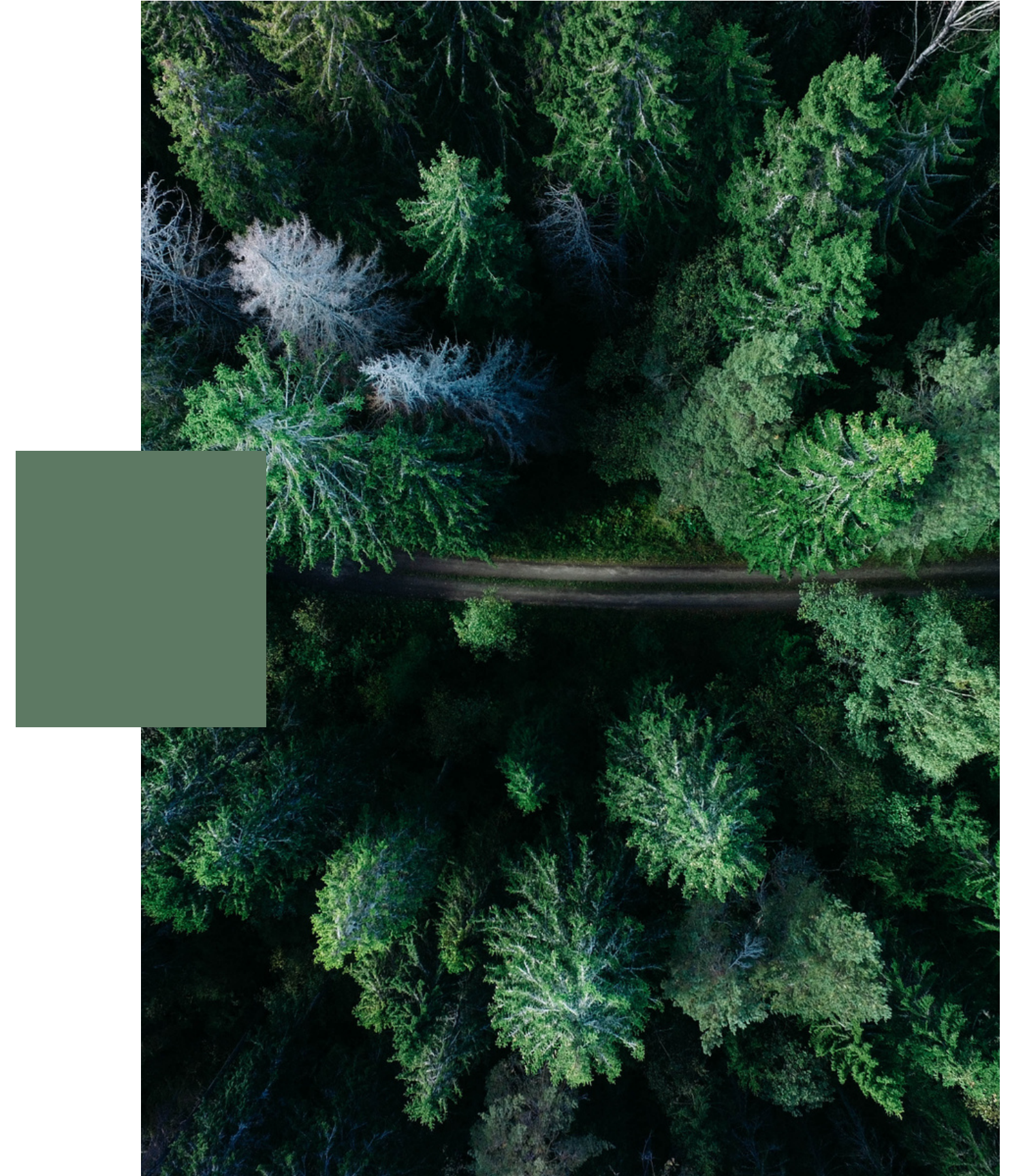
I- What are the consequences of global warming on forests



II- What are the advantages of forests in the face of global warming?

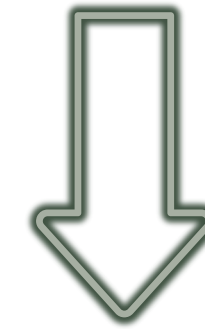


III- How to preserve forests from global warming?

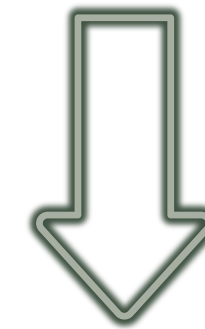


I - What are the consequences of global warming on forests?

Increase in the temperature on the surface of the Earth



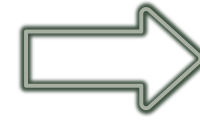
modifies the **distribution** of rains and winds



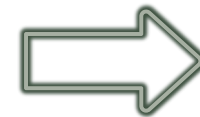
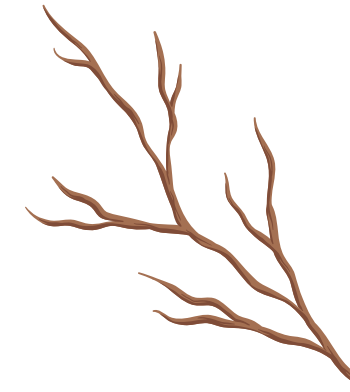
climate **changes**

I - What are the consequences of global warming on forests?

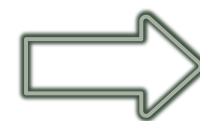
Consequences of lack of water and high temperatures in forests



The trees lose their leaves they suffer from **drought stress**



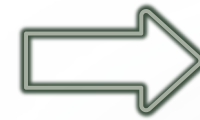
some **parasites** proliferate and attack tree trunks and branches



more **forest fires** therefore decrease in biodiversity in the forest ecosystem

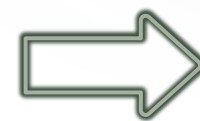
I - What are the consequences of global warming on forests?

⇒ Consequences of lack of water on forests

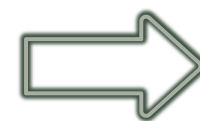


Example in France: 300,000 Ha of public forests have withered away since 2018!

30 X



So cuts of the trees are inevitable to avoid the spread of diseases and fires (and ensure the safety of walkers)



many major forest species will no longer be suitable in the future

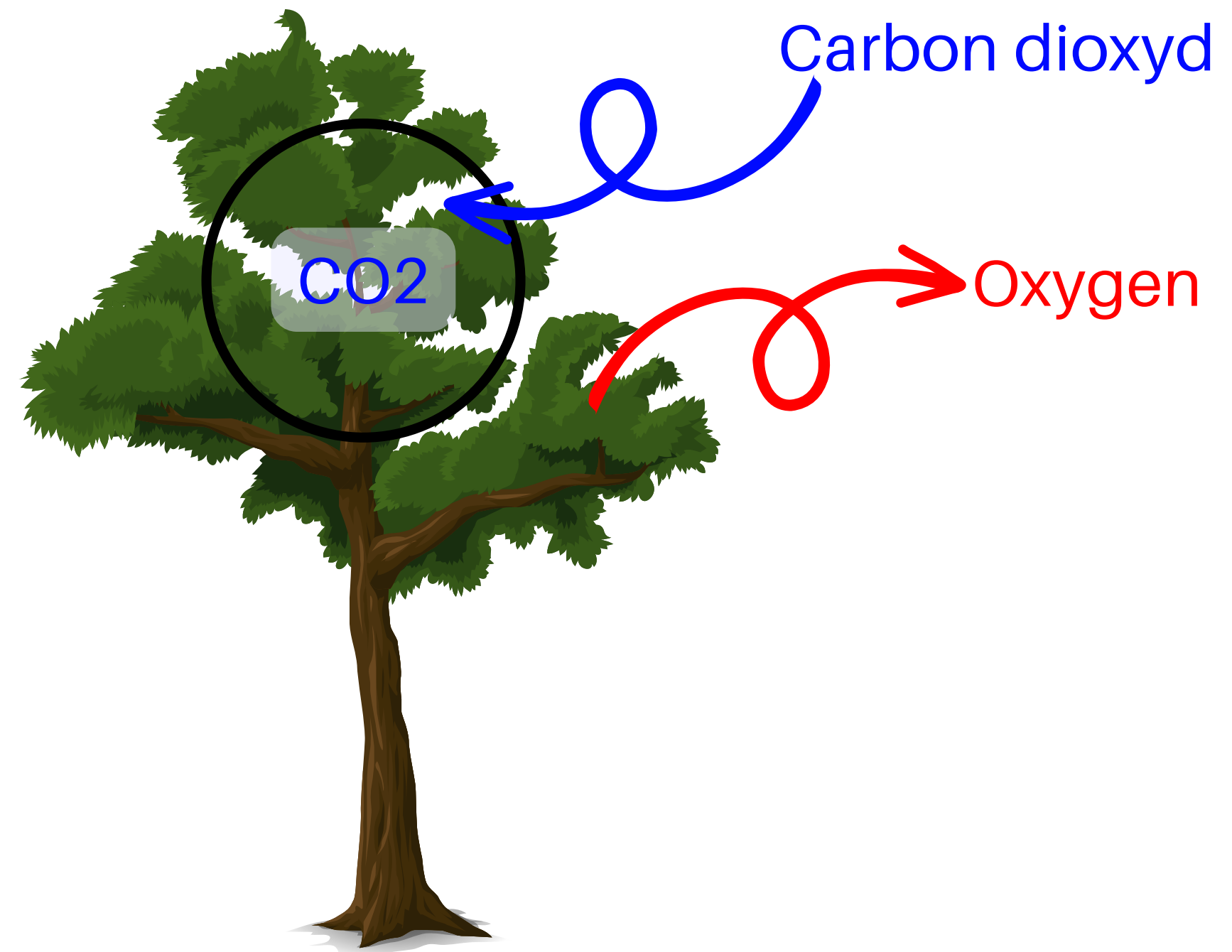
II- What are the advantages of forests in the face of global warming?

Advantage ① : Sequestration

trees take CO₂ from the atmosphere via photosynthesis.

Thus, forests are the second reservoir of C on a global scale after the oceans.

Ex: in France, 83 million tonnes of CO₂ are sequestered each year.



II- What are the advantages of forests in the face of global warming?

Advantage ②: Storage

Even when cut, part of the CO₂ remains stored in wood (furniture, construction, etc.)

a durable and the most renewable material

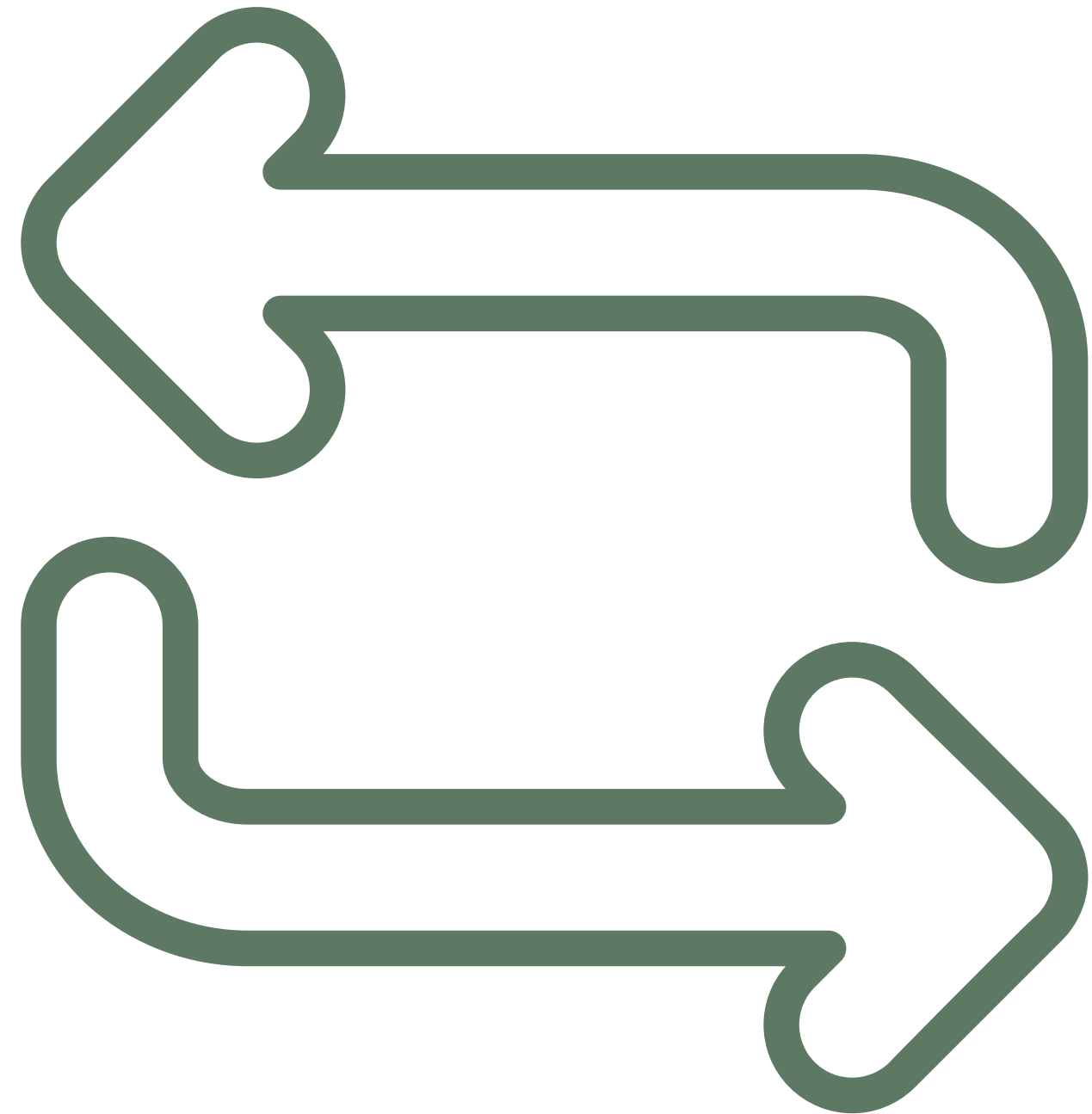


II- What are the advantages of forests in the face of global warming?

Advantage ③: Substitution

Wood is a substitute product of cement or steel, the production of which releases CO₂ into the atmosphere.

Wood can replace them in some constructions.

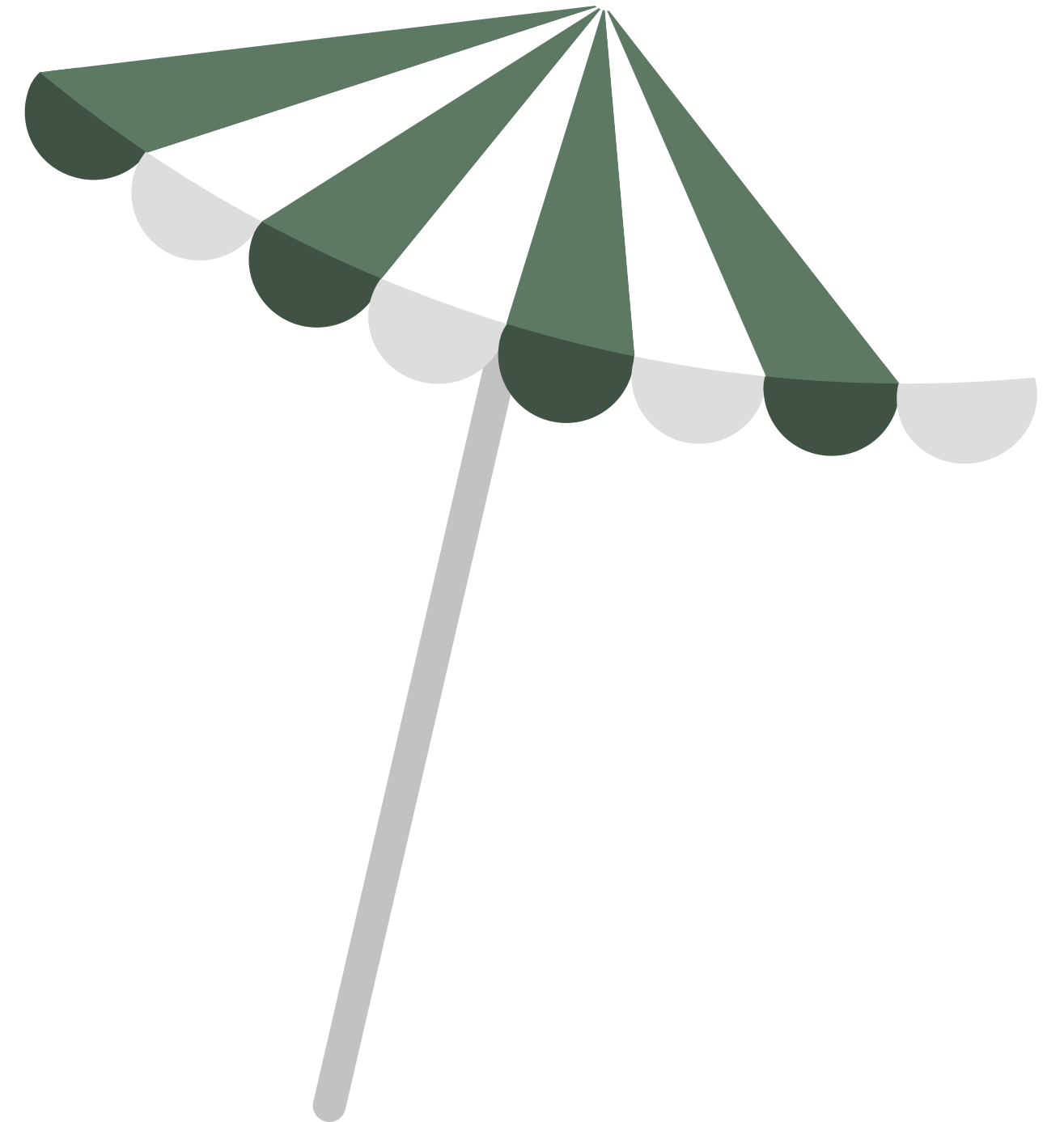


II- What are the advantages of forests in the face of global warming?

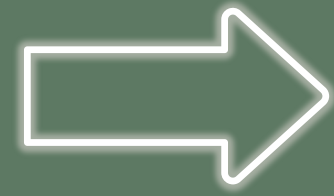
Advantage ④: Air conditioning

The forest acts as an air conditioner.

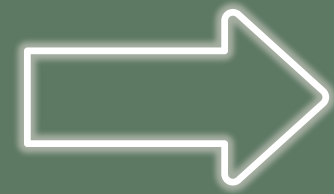
Indeed, the tree reflects about *20% of solar radiation* and at the same time actively cools the surrounding air by evaporating water during transpiration.



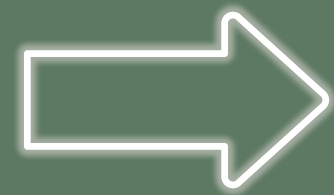
III- How to preserve forests from global warming?



Anticipation



Experimentation



Diversification

Thank
You