

Co-funded by the  
Erasmus+ Programme  
of the European Union



## Erasmus project: TECHNOLOGY AS A SOLUTION FOR CLIMATE CHANGE

- **CLIMATE CHANGE AND HEALTH**

# ERASMUS CLIMATE CHANGE AND HEALTH

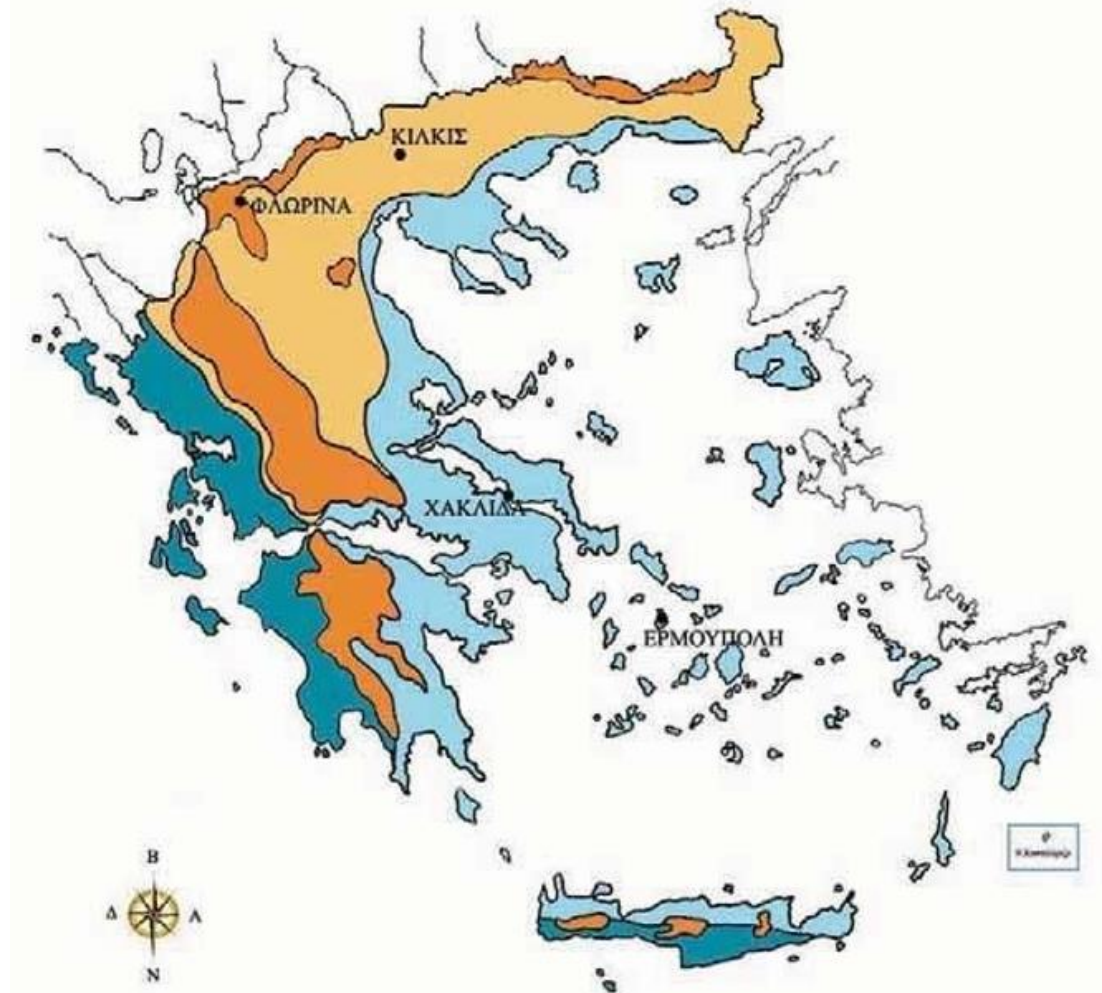


# CLIMATE: Climate is the average weather conditions in a place during a year and more

- The climate of Greece has in general the characteristics of the Mediterranean climate, for example mild and rainy winters, hot and dry summers and a lot of sunshine almost all year . The great variety of climatic types of climate is due to the topographic configuration of the country that has large differences in altitude (there are large mountain ranges along the central country and other mountains) and the alternation of land and sea. So from the dry climate of Attica and generally of Eastern Greece we switch to the liquid of Northern and Western Greece. Pindos prevents wet winds from passing to eastern Greece and so western Greece has more rainfall all year.

- Let see what elements of the world we live in determine the climate?

- Air
- Water
- Earth
- **Maybe the human activities?**



ΚΛΙΜΑΤΙΚΕΣ ΠΕΡΙΟΧΕΣ ΤΗΣ ΕΛΛΑΔΑΣ

 Κλίμα ορεινό με ψυχρούς χειμώνες, δροσερά καλοκαίρια και βροχές όλες τις εποχές.	 Κλίμα υγρό με πολλές βροχές, ήπιους χειμώνες και δροσερά καλοκαίρια.
 Κλίμα με χειμώνες πιο ψυχρούς απ' ό,τι στις ακτές και ξηρά καλοκαίρια.	 Κλίμα με μέτριες βροχές, ήπιους χειμώνες και ξηρά καλοκαίρια.



# What Is Climate Change?

- Climate change describes a change in the average conditions in a region over a long period of time.



# What Causes Climate Change?

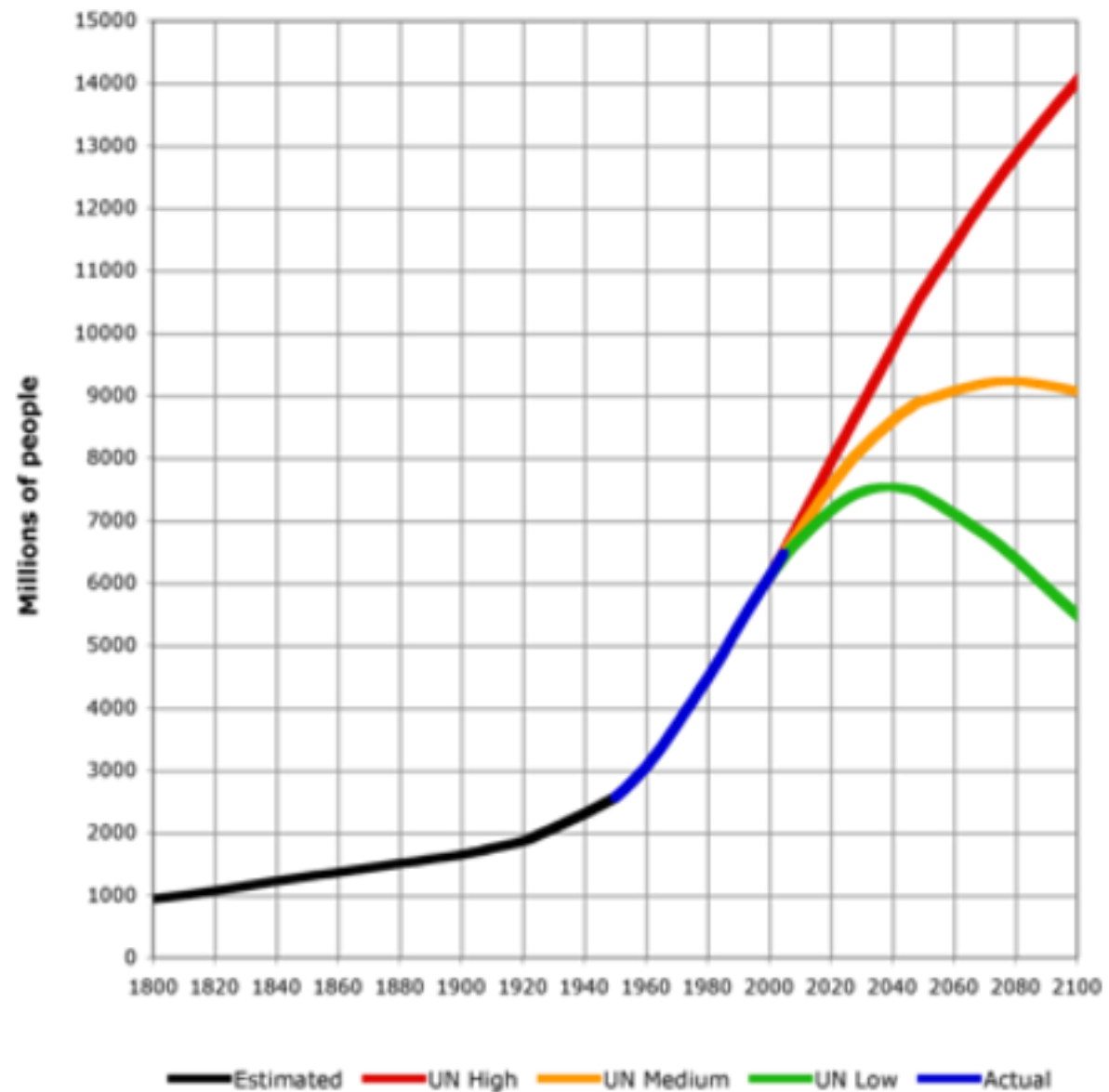
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# OVERPOPULATION

- 1- OVERPOPULATION
- The earth's population exceeded six billion people in 2000! The problem is not so much the size of the population as the fact that our small planet cannot satisfy the needs of people.





# GREENHOUSE EFFECT

- Another factor that contribute to Earth's climate is **greenhouse effect**.
- It's normal situation greenhouse gases in our atmosphere.. Without it the average temperature of the planet would be  $-18^{\circ}\text{C}$ . However, daily human activities reinforce this effect, causing even greater global warming.
- Human activities — such as burning fuel to power factories, cars and buses — are changing the natural greenhouse. These changes cause the atmosphere to trap more heat than it used to, leading to a warmer Earth. Certain gases in Earth's atmosphere block heat from escaping. These gases keep Earth warm like the glass in a greenhouse keeps plants warm. More than 95% of the energy sources used by humans belong to non-renewable energy sources, such as oil, natural gas and coal.







# OTHER HUMAN ACTIVITIES



- **Deforestation** and **overconsumption**, also contribute to climate change



# DIETARY CHANGES OF HUMAN

- In the last century, the diet of humans was simpler and relied more on foods of plant origin. In contrast, in recent years the diet of people in developed countries has changed and relies mainly on meat and processed food, resulting in an increase in the carbon footprint.



# Climate change and its effects





Changes in rainfall patterns have resulted in more and more frequent either extensive floods or prolonged droughts.

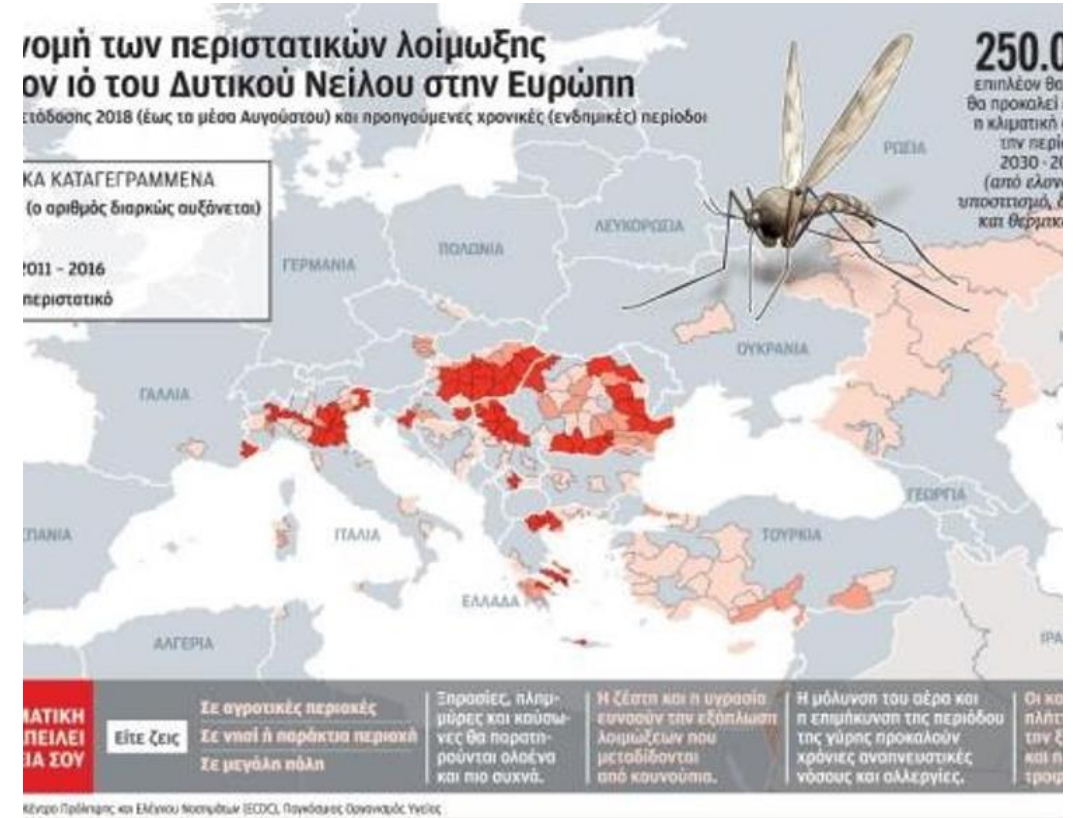
# MENTAL HEALTH

- Extreme weather conditions due to climate change have serious consequences for people's **mental health**. Natural disasters cause severe sleep disorders and difficulty sleeping which makes people 's daily lives even more difficult and aggravates other health problem.



# Infectious diseases

- With high temperatures, we have the multiplication of insects such as mosquitoes, which are carriers of many **infectious diseases**. Also there is an increase of the spread of diseases, such as **malaria and various diarrheal diseases**.



# ALLERGIES

- High seasonal temperatures and elevated atmospheric CO<sub>2</sub> levels result in an increase in the amount of pollen in the atmosphere. A consequence is an increase in **allergic reactions** of the respiratory system as well as **asthma episodes**.





# ASTHMA EPISODES







# MALNUTRITION

- At the other side, prolonged droughts increase the risk of desertification, resulting in a dramatic reduction not only in quantity but also in quality of agricultural production. So the nutritional value of food decreases as the concentration of CO<sub>2</sub> in the atmosphere increases. In such conditions people are either **malnourished** or **fed with products of lower nutritional value**.





# CARDIOVASCULAR EPISODES

- Climate change is already having an impact on health: There has been an increase in the number of **heat-related deaths** in some regions. Only for 2015 2,9 Millions of **premature deaths** are due to **cardiovascular** and **respiratory diseases**.



Can we stop climate change?

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If we cannot stop the climate, we can at least mitigate its effects and adapt to its consequences

- We must reduce the amount of emissions released into the atmosphere, for example, by developing **clean energy and increasing forest areas**.
- **Change habits** such as transport, energy, industry, housing, waste management and agriculture.
- Adapting to climate change means adapting to its effects and becoming more mentally resilient to them. This may mean, for example, making more efficient use of limited water resources (**water houses**), adapting to agricultural practices (**vertical crops** and **floating farms**) and ensuring that **buildings** and infrastructure are able to withstand future climatic conditions and extreme weather conditions.



# How we can stop climate change?

-Use Clean Energy



-Plant Trees



# How we can stop climate change?

Climping plants

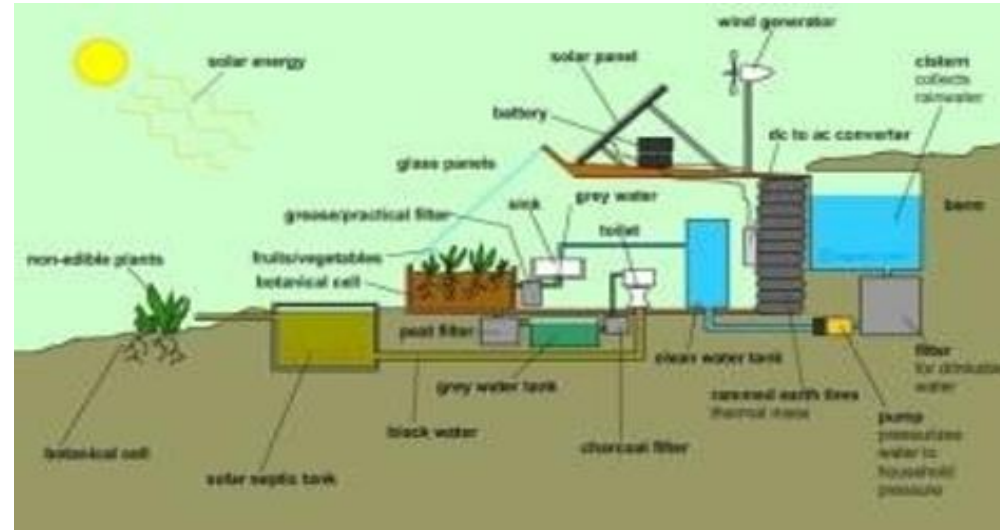


Floating farms



# How we can stop climate change?

- Green house





# How we can stop climate change?

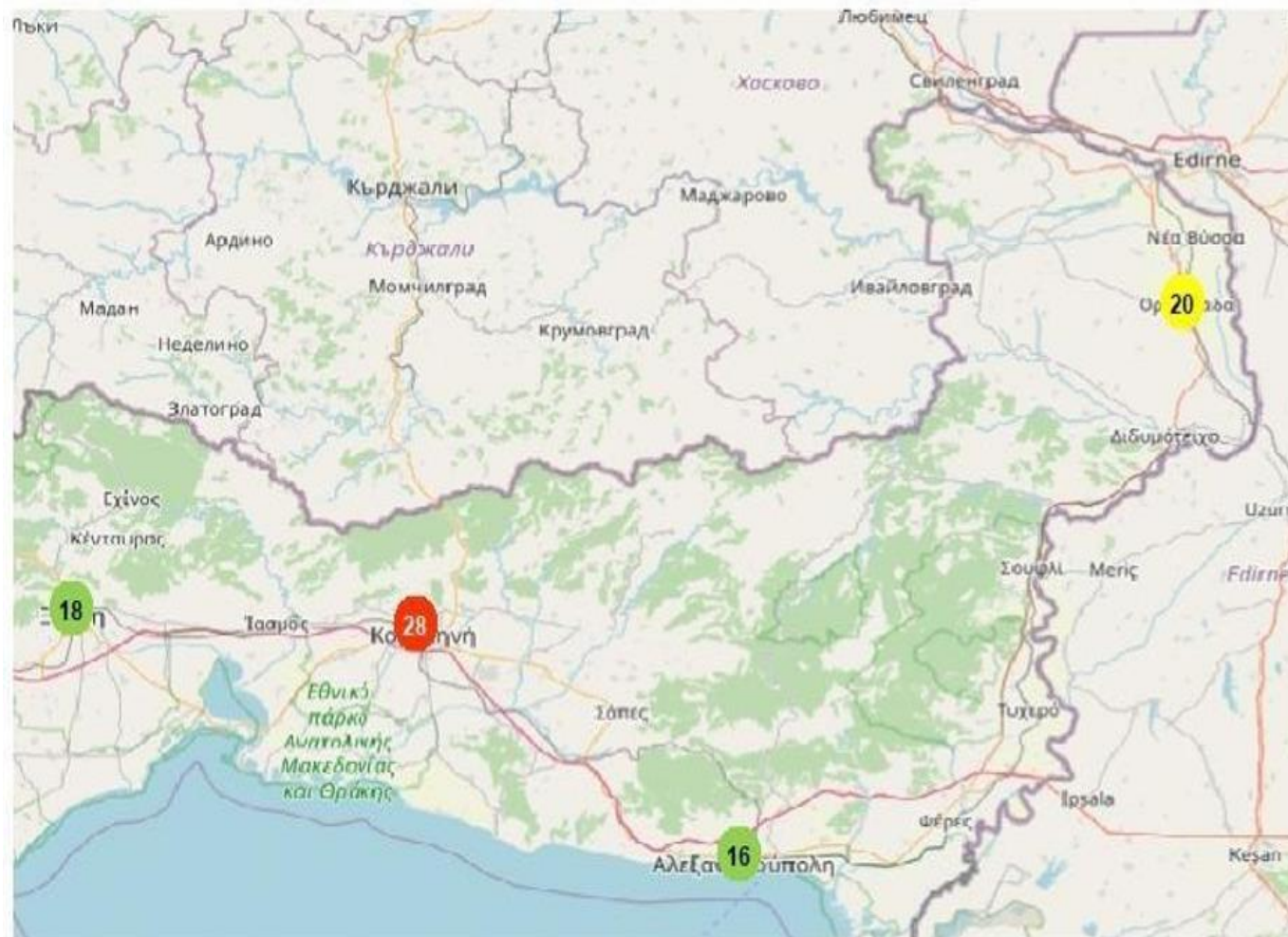
- Because the effects of climate change are more common in areas and populations that are already vulnerable, to address them we must provide assistance to the most vulnerable. The world community also owes its **fight to poverty, inequality and environmental degradation.**







# Air quality today, Region of Eastern Macedonia and Thrace





*The air quality is good and the air pollution is minimal to no dangerous*

Κατάσταση ποιότητας αέρα	Τιμές δείκτη ποιότητας αέρα
Καλή	0-10
Ικανοποιητική	10-20
Μέτρια	20-25
Κακή	25-50
Πολύ κακή	50+



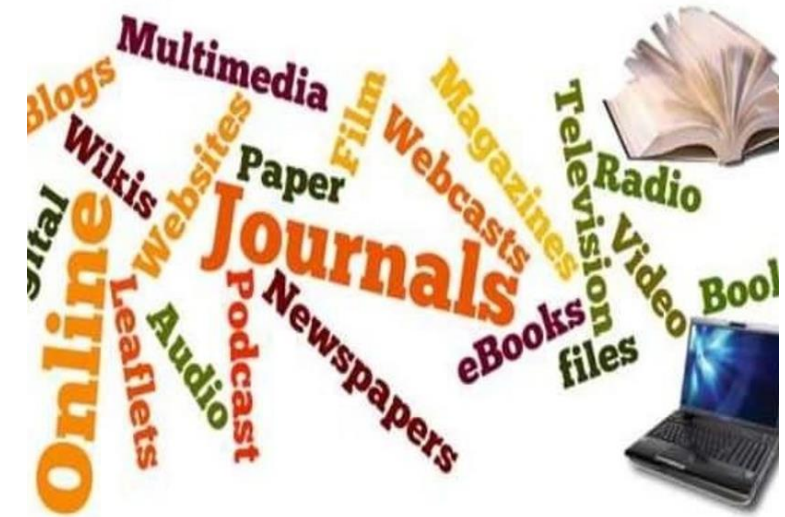
# Air quality today- Athens, Attica Region

- **57 Moderate**
- **Air quality is acceptable;** however, for some pollutants there may be a moderate health concern for a very small number of people who are unusually sensitive to air pollution.
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- **Main pollutant: Cause high levels of nitrogen dioxide, a pollutant mainly due to vehicle traffic and industry.**



# Sources

## Information Sources



- [1https://www.greenpeace.org/greece/issues/klima/10465/klimatiki-allagi-epiptoseis-stin-ygeia/](https://www.greenpeace.org/greece/issues/klima/10465/klimatiki-allagi-epiptoseis-stin-ygeia/)
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