



CLIMATE DETECTIVES 2023-2024

3gymSKONI-FIRE
3rd High School OF
Gerakas



RESEARCH QUESTION



Two years ago, in August 2022, a fire occurred in our area.

THE QUESTIONS

Can we observe the change to the nature of our area with the help of satellites?

Furthermore, can we simultaneously monitor local dust levels and investigate any potential correlation between these phenomena?

SUMMARY OF PROJECT -DUST



1)**DUST** : We often deal with dust thickly. Dust that blurs our photos, dust that makes cars and courtyards of houses not clean, makes visibility in the area difficult . So we decided to observe the dust.

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SUMMARY OF PROJECT -DUST



- Our team will observe dust episodes and record them almost daily from October to March. We will get dust data from meteo.gr (National Observatory of Athens). They will be divided into 4 categories 0: no dust at all 2: low 4: medium high 6-7 very high. Data is stored in a shared Excel sheet. On the days with dust we will keep the meteo.gr (National Observatory of Athens) dust charts, and we will observe the area from the EO Browser paying attention to the changes that occur. At the end we will show diagrams per month with the dust days

SUMMARY OF PROJECT - FIRE

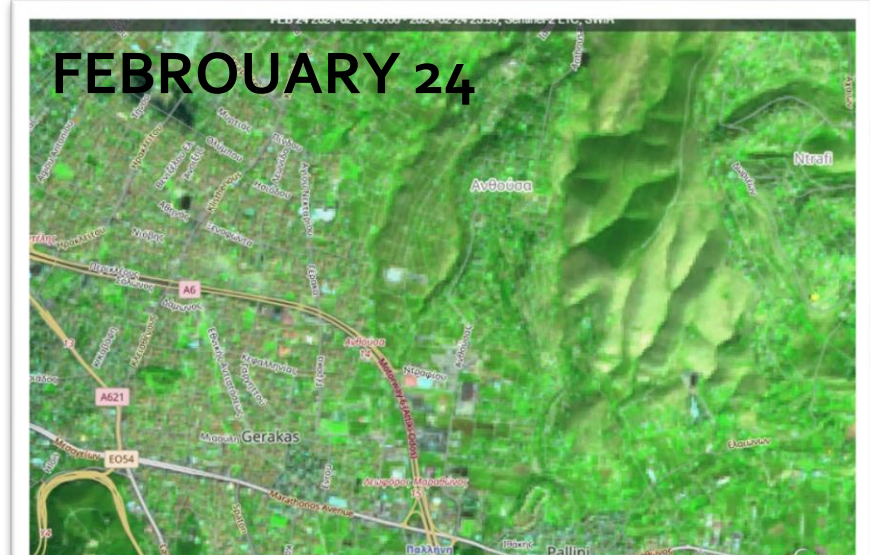
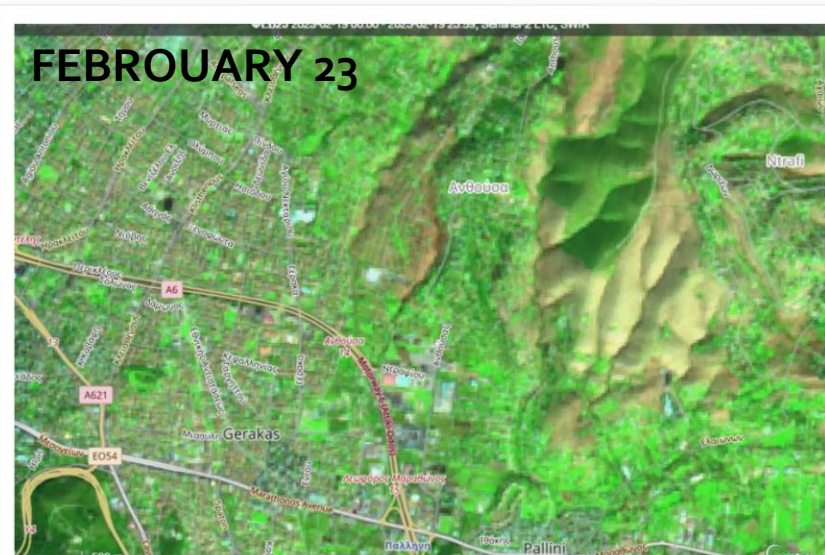
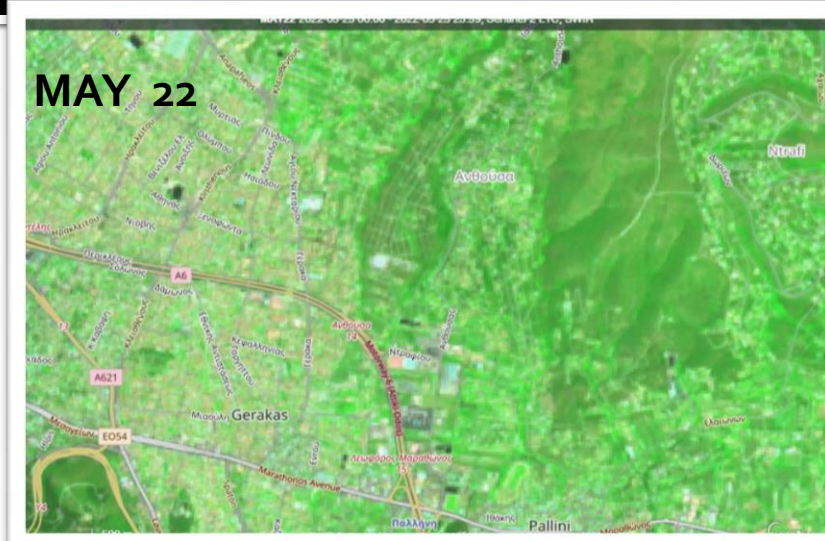


- 2) **FIRE** : Two years ago (August 2022) a fire broke out in our area. So part of our research was to observe the change in the nature of our area with the help of satellites. We will try to make a time-lapse observing the change of the area From EOBrowser before and after the fire .



RESULTS OF INVESTIGATE FIRE

(The change in the flora is obvious, it has not been restored)



RESULTS OF INVESTIGATE DUST

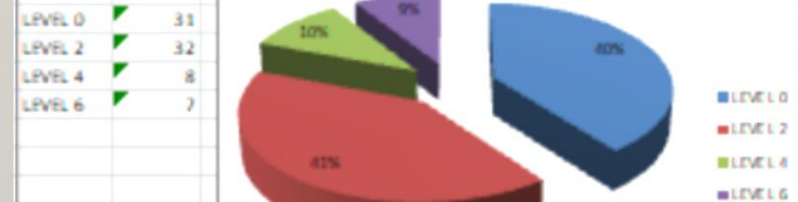


(dust episodes are very frequent, but of small size)

DUST FROM OKTOMBER 23
TO MARCH 24

ΗΜΕΡΟΜΗΝΙΑ	ΜΕΤΡΗΣΗ ΑΠΟ ΜΕΤΕΟ		
3/10/2023	0	ΕΠΙΠΕΔΟ 0	31
4/10/2023	0	ΕΠΙΠΕΔΟ 2	32
5/10/2023	0	ΕΠΙΠΕΔΟ 4	8
6/10/2023	0	ΕΠΙΠΕΔΟ 6	7
7/10/2023	0		
8/10/2023	0		
9/10/2023	0		
10/10/2023	0		
11/10/2023	0		
12/10/2023	0		
13/10/2023	0		
14/10/2023	0		
15/10/2023	0		
16/10/2023	2		
17/10/2023	2		
18/10/2023	2		
19/10/2023	2		

CHART



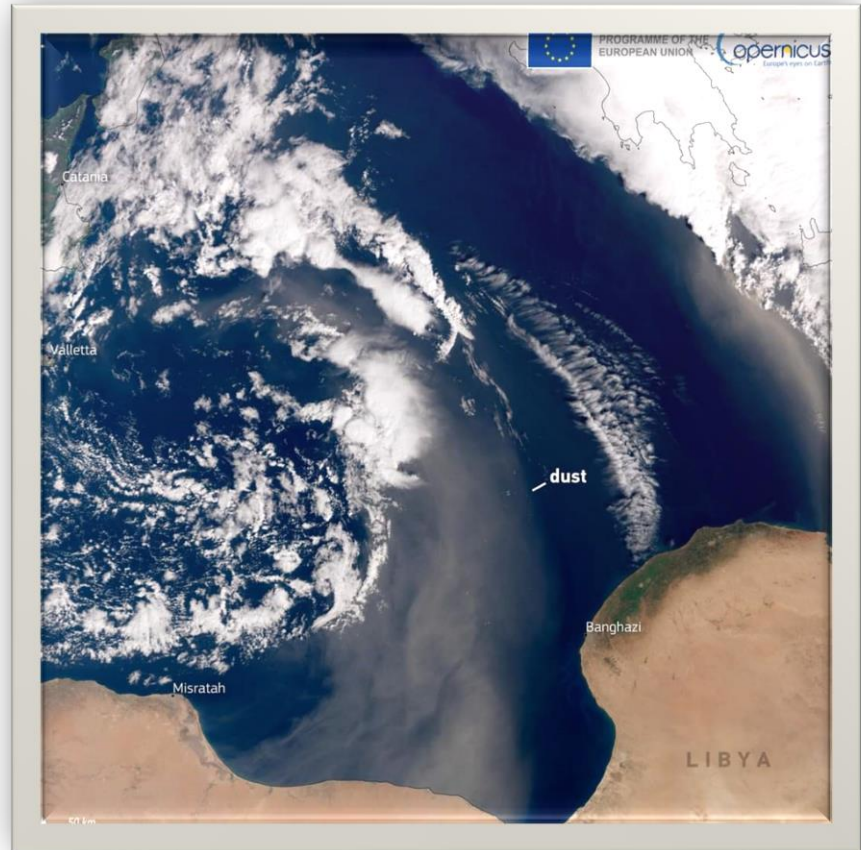
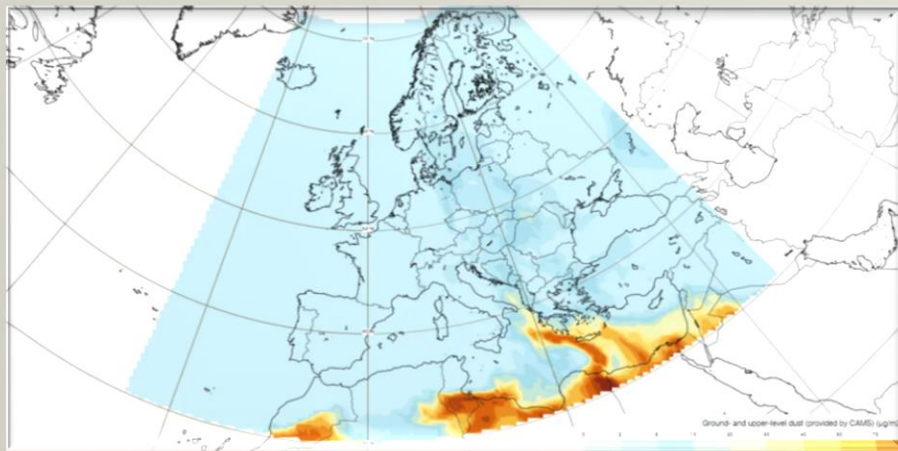
From the chart it appears that the dust episodes are very frequent, but of small size

DUST EPISODE LEVEL 6 at 01-03-24



FROM
ATMOSPHERE.COPERNICUS.EU

FROM SETINEL 3



ACTIONS TO HELP LESSEN THE PROBLEM



- Climate change is a complex issue that necessitates thorough examination and heightened awareness to effectively tackle it. In the region, coordinated reforestation initiatives are underway..
- We expect to see the difference in flora after the reforestation in a year from now.



... We will continue next year to compare the dust episodes of the two years.

....We will also try to record the flora of the area , three years after the fire.

END