



Committee: GC3 - Natural Sciences

Issue: Tackling the issue of forest fires in the Mediterranean Region in 2021 with a special focus on countries such as Turkey, Greece and Italy.

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Introduction:

Forest fires are now part of the Mediterranean ecosystem due to the Mediterranean's geographical and meteorological characteristics. Although these aspects of the Mediterranean Region make it vulnerable to forest fires, the increase in climate change in the past decade has also had great effects on the frequency of forest fires. Statistically; forest fires are not directly caused by climate change but the extreme weather conditions and droughts have unquestionably made them longer and more intense. These fires are not only causing economic and ecological damage but are also endangering human lives, causing people to flee and leaving thousands homeless. We also see the devastating effect of these forest fires as they cause loss of biodiversity, soil erosion and water scarcity.

High values of smoke pollution have been detected in the air in Turkey and the Mediterranean area which mirrors the severe magnitude of the fires. Turkey has experienced 2,105 forest fires during 2021 and the Turkish authorities have responded by refreshing these burned areas with new forests. Due to these fires, multiple villages and neighbourhoods have been evacuated and many lives were lost. For these 2021 fires, the fact that this summer being the hottest summer since the last 50 years has played a great role in the duration of the fires but the actual starting cause of the fires have been suspected as arson attacks.

Greece has been taking important measurements in order to control the forest fires in the country. Although the government is taking precautions, it is rarely seen when causes other than 'unknown' are recorded for forest fires. Overall, social and cultural factors are the aspects that play a big role in the wildfire problem. The year 2007 was one of the worst forest fire seasons in history. Wind played a significant role in feeding the fire and as human factors, population density had a negative impact on the wildfire spread.

The cause of most of the forest fires in Italy are due to human activities, whether due to arson or negligence. Fires are more common in the southern part of the Alps compared to the northern region. Even though statistically the impact of fires are lower in Italy, Alpine forest fires require a strong resource for fire fighting prevention as the geographical mountainous environment makes it hard to fight fires.

Definition of key terms:

Natural sciences: The branch of science that deals with the study of the physical world and natural phenomena.

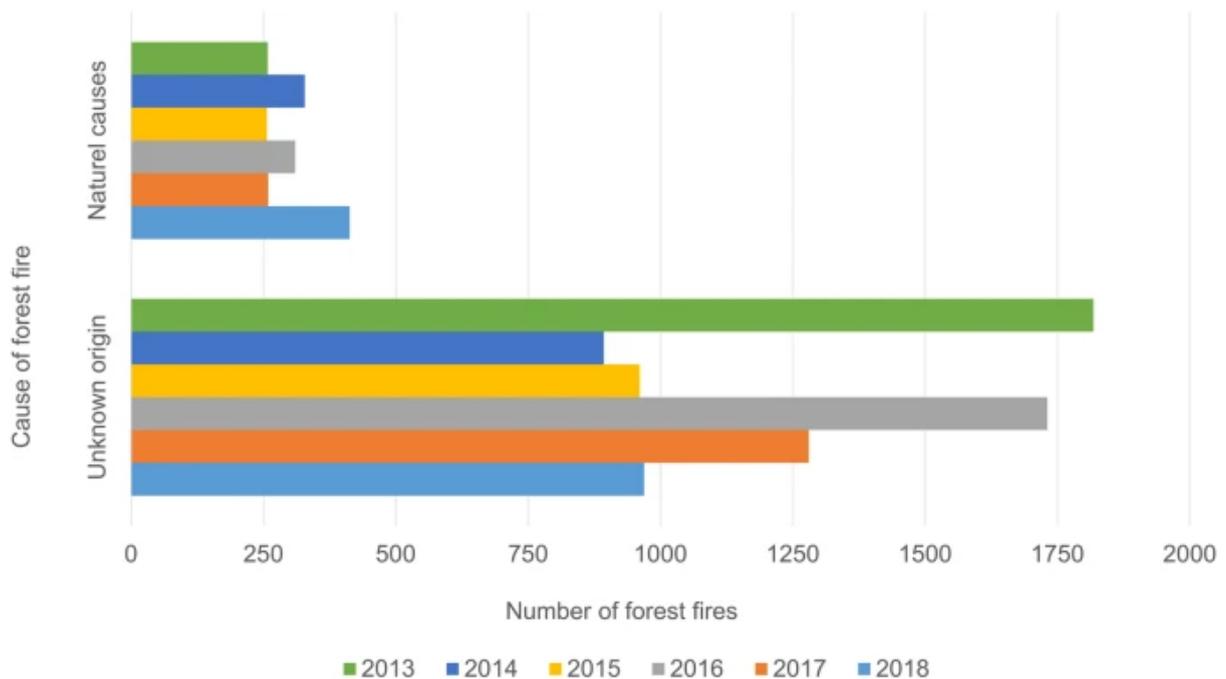
Meteorological: Relating to the branch of science concerned with the processes and phenomena of the atmosphere, especially as a means of forecasting the weather.

Background information:

There are several ways for a forest fire to take place. The most common natural igniters of forest fires are lava and lightning. However, in the last two decades, it has been seen that around 85 percent of wildfires are caused by human actions. These human actions categorise into two aspects; intentional (arson) and unintentional (negligence) actions. In most cases, the causes of forest fires are established as unknown. The reason for this is to not allocate responsibility for the damage.

In our day, we know and see the severely damaging effects of global warming and climate change. This ties into wildfires. Especially in the Mediterranean. The Mediterranean is warming 20% faster than the global average. This leads to wildfires since the severe increase in temperature could cause a random ignition.

Turkey has experienced the “worst in its history”. About 175000 hectares of land have been burned from these fires. That is more than 8 times the average between the years 2008 and 2020. They believe the reasoning for these forest fires are the fact that the July month of 2020 was at an above-average temperature. This connects to climate change. Turkey eventually received help from France, Spain and several other nations which provided air support.



Figure= Number of forest fires in Turkey that started from unknown origin and natural causes from 2013 to 2018.

→ Historical BACKGROUND

Involved countries and organisations:

World Wide Fund for Nature (WWF) played a big role in Greece, Italy and Spain

Greece:

In 1998, World Wide Fund for Nature (WWF) launched a campaign against forest fires. This campaign is called “Forests For Ever” and it aims to improve fire prevention in selected forests of particular ecological importance and promote forest restoration through model demonstration projects. WWF Greece successfully achieved large media coverage by preparing forest fire management plans for biodiversity “hotspots” in the country and has organised field activities involving the public. This media coverage was needed in order to secure the interest of the broad public and increase political pressure on the authorities. Numerous stakeholders have joined forces with WWF and more events and contacts have been organised. After three years of campaigning, Greece WWF successfully blocked the constitutional reform that posed a serious threat to forest ecosystems, shaped a new mentality on forest fire management through the relevant authorities and successfully restored three burnt forest sites in Athens and Thessaloniki.

Italy:

A turning point in the fight against forest fire-rasings has been marked by the “framework law on forest fires”, passed on by the Italian Parliament in the year 2000. This law presents several important innovative elements, such as the judicial definition of “forest fire”, the harmonisation of the many laws related to forest fires, as well as an increase of fines and penalties. WWF Italy called upon the delegates of the Ministry of Interior in charge of the police districts to enforce effective measures to prevent the crime of forest fires, through the strengthening of the police controls and activity in the area. WWF Italy urged the Ministry of the Interior to put pressure on the municipalities to update their cadastral surveys and master plans because they realized that 82% of the Italian municipalities had not updated their cadastral surveys by identifying burnt woods or lands, as prescribed by the law. As a result, the municipalities have been required to report on their cadastre the areas burnt over the last five years.

Spain:

WWF Spain proposed to increase investments in prevention measures, including sustainable forest management as an essential component of them. The organisation suggested increasing ad-hoc awareness-raising and environmental education activities addressing the different social sectors affected by forest fire fighting. WWF Spain also proposed to analyse the underlying causes of forest fires and identify all unknown causes and those responsible.

Timeline of events:

| Event/Law | Date | Location | Impacts |
|-------------------------------|-------------------|---------------------|--|
| Framework Law on Forest Fires | 21 November 2000 | Italy | The decrease in the number of forest fires caused by human actions. |
| Forest Fire | 20 July 2007 | Peleponnese, Greece | This fire was caused by an arson attack and the fire destroyed 230 houses and 10 churches. |
| Forest Fire | 29 September 2020 | Yatağan, Muğla | The fire destroyed 2.5 |

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| | | | acres of forest and 7.4 acres of agricultural land. |
| Forest Fire | 9 October 2020 | Belen, Hatay | This fire was caused by an arson attack and the fire burnt 990 acres of forest and many residences. |
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Previous attempts to solve the issue:

- **Launching of the campaign “Forests For Ever”.** It was launched by the Worldwide Fund for Nature (WWF) Greece. This campaign was Greece’s yet largest reforestation campaign which aimed to change the legislation, develop the prevention of wildfires, and promote fire restorations. The first step in this campaign was to identify the areas which needed the most restoration. The next step was to gather a workforce which would be obtained from volunteers, students and non-governmental organisations. Lastly, scientists and researchers will conduct studies about the progress and health of the created forests. Even though this program was set to be finished in 2030, Greece has proposed measures to protect and preserve the forests well after that time.
- **Passing on of the “framework law on forest fires”.** This law was passed on by the Italian parliament in 2001. This aimed to enforce even more effective measures to prevent the crime of forest fires by strengthening the police force and increasing fines and penalties.
- **BAER (Burned Area Emergency Response).** This program aims to stabilise and take control of the issue of post wildland fire problems to protect the people's safety and prevent any further damage to the land. In this program, there are teams that are made up of recourse specialists who can perform emergency treatments. These emergency treatments can be done to minimise the threats to life or property or to stabilise the welfare of the land and natural resources.

Possible solutions:

- Don’t set off fireworks in a hot and dry environment.
- Dispose of cigarettes correctly.
- Camp responsibly.
- Keep a close eye on candles.
- Avoid driving off the road in dry seasons.

Useful links:

- https://effis.jrc.ec.europa.eu/apps/effis_current_situation/
- <https://atmosphere.copernicus.eu/copernicus-mediterranean-region-evolves-wildfire-hotspot-while-fire-intensity-reaches-new-records>

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