Forum: Youth Assembly

Issue: Measures to Preserve Forests and Prevent Wildfires Around the Globe

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Introduction

Forest wildfires are defined in their name, they are wild, an uncontrollable inferno usually in rural areas. These rolling flames destroy everything in their way. They have nearly 6 million acres of land in the span of 10 years, in 2017 the number reached 10 million acres with a total of 60,000 wildfires. According to the EPA (Environmental Protection Agency), only 10-15% of forest wildfires are natural whereas 85-90% of the fires are human-caused for example, Forest fires that start naturally, the combustion starts small, on some leaves or sawdust, however, when humans discharge fire on their forests, it can happen for a number of reasons such as smoking, recreation, etc.

Forests are an essential part of sustainable development and a vital part of the economy's growth and environment. Forestry needs to be protected from the risk of desertification, from natural hazards such as soil erosion and soil storms. As our world modernizes climate change threatens the natural growth and production rate of forests. Forests play a vital role in the urban community by supplying raw materials and needed goods to run different sectors of the economy. Forest fires are usually beneficial to the growth of the natural resources as long as it is controlled, however, deemed a threat because of the frequency and occurrence of these fires.

The wildfires are caused during droughts, dry and hot weather, during summers they are caused by the scorching heat. To add when strong winds and wildfires collaborate, they encourage the fire to blaze around thousands of acres of land. In September of 2019 world leaders came to the conclusion that with only 10 years left to accomplish the Sustainable Development Goals, they would have to start working faster, however with a growing population

and advancement in technology, pollution levels and the risk to the environment has not been reduced. These wildfires cause harm to the environment, the people, the economy as well as the government.

For a wildfire to burn, it needs three elements which are known as the “Fire Triangle”. Air, Heat and Fuel. Fuel is any material that can be combusted as long as there is contact with heat, the air is the oxygen present in the environment which adds on to the power of the combustion and lastly, heat, they spark the wildfire this can be done by cigarettes or even just by the power of the sun.

Furthermore, there are different types of wildfires:

Fires on peatlands- these are the most dangerous types of fire since they increase the levels of CO2 in the environment which results in higher levels of global warming and global heating. “The peatland fires in Indonesia in 2015 affected the health of millions of people and became a world environmental disaster. Since then, Indonesia has made tremendous efforts to protect and sustainably manage their peatlands, including most recently, leading the way towards the United Nations Environmental Assembly resolution on the Conservation and Sustainable Management of Peatlands,” says UNEP peatlands expert Dianna Kopansky.

Crop Fires- these fires are started deliberately, they too damage the environment but also damage the respiratory system of those who inhale the smoke of the fire, these fires are started to keep away any insects, bugs or mice that may eat away the crops it is also done to kill the unnecessary weed that grows in the middle of the crops. An example of crop burns would be in India where every year farmers burn 35 million tonnes of crops from their paddy fields.

The aftereffects of fires are usually predictable, they have effects on the economic and environmental factors of the economy, they vary from the combustion period to the health and lives of animals and human, effects on employment, cultural heritage and natural wellbeing, air quality, greenhouse balance, impact on the animal community and their habitats and the general biodiversity. for instance the Amazon fires in 2019 led to an increase of pollution levels around the region. health and conservation experts urged authorities to save the forest before it reaches the “tipping point”. The fires were so severe that the carbon sink sucked up 20% of the world's oxygen. "If we can't conserve the Amazon, we will lose the fight against the climate

crisis," says Kerry Cesareo, senior vice president for forests for the World Wildlife Fund. "We have already lost about 20% of the rainforest," she says. According to a 2018 report, the tipping point is 25%."" Paul Rosolie, an author and conservationist, says the fires are throwing off the entire Earth's climate. "We don't realize how interconnected everything is. If you were suddenly to turn off the Amazon, our temperatures and rain would change in an instant.". This shows how the rain, pollution, and oxygen levels are going to be affected all around the world.

Definition of Key Terms

Forest fire

Described as uncontrollable combustion of plants in natural areas which consumes natural fuels to survive.

Sustainable Development Goals

A collection of 17 major goals, formed by the UN General Assembly to "achieve a better and sustainable future for all". They are to be achieved by 2030 and are a part of the UN Resolution.

Combustion

The action of something burning.

Environmental Protection Agency

A federal agency in the United States that looks after the protection of the environment and is responsible for the protection of human and environmental health.

Plant weed

Unwanted plants growing in the middle of healthy crops.

Biodiversity

A variety of plants and animals in an area, a variety of species living in the same habitat.

Chronic obstructive pulmonary disease

An inflammatory lung disease that obstructs airflow in the lungs.

Incomplete combustion

Combustion that is not complete due to the lack of oxygen present in the air/reaction.

Polar vortex

A low-pressure area where cold air swirls parked at the polar regions.

Key Issues

Health risk to people and animals

Case specific in australia the smoke that comes out of forest fires are a mix of very fine particles that are produced when organic matter or wood burns, this smoke can cause health problems such as asthma, bronchitis, pneumonia, chronic obstructive pulmonary disease etc.According to a Harvard study it is worse for the animals that live in those forests as nearly 7 times of 10 animals do not survive. They get burnt alive. The fires burn down habitats, plants and ruin the biodiversity in that region. However, scientists believe that the fire enriches the soil and improves the overall health of the forest, but, at the cost of its species and biodiversity. Forest wildfires bring more harm than benefit to people, so questions arise that is it really worth it to potentially ruin the health of people and animals, destroy the flower and fauna just to revive the health of the soil?

Risk of flooding

Forests are needed for sustainable development of the country, after a wildfire, the land is usually left barren, charred and burnt which makes it impossible for the water to be absorbed by the ground, this would then cause flash mud flooding and water flow. Post wildfire the vegetation is burned which causes it to roll down and they cause damage to the terrain because the rainwater is running through a denuded ground, this can cause significant damage to the soil- it could also lead to desertification. For example, New Mexico in 2011 declared a Presidential Disaster Declaration because of the Las Conchas Wildfire which burnt 150,000 acres of land and then proceeded to have a major disastrous flood in the burn area.

Air quality and climate change

Climate change challenges are a threat to forests and their productive nature. Wildfires emit smoke plumes which cause catastrophic consequences such as constant scares of wildfires, health problems such as lung cancer or asthma or even death, for example, people who breathe in the air from the wildfires tend to have a shorter life span. The problem starts with incomplete combustion, chemicals from this process (i.e- sulfur dioxide) are released directly into the environment this causes them to contribute to 5-10% of CO2 emissions in the air each year. Extreme wildfires can cause CO2 to spread quickly in very short amounts of time, for example, North California's wine country emitted enough CO2 in one week that it usually emits in one year. This causes climate to worsen and creates holes not only in the ozone layer but also the polar vertex which is situated all the way at the poles. These emissions don't just blow smoke, they leave ever-lasting after-effects on the environment. Because of these wildfires, our world is likely to exacerbate risks of the fires, it is predicted that precipitation levels will decrease, summers are likely to getter even hotter, and intensity of heatwaves is likely to skyrocket.

Urbanization

As our world moves towards digitalization, urbanization is a common characteristic in all countries and is an ongoing process as we discuss this matter. People move from rural areas to improve their social and financial conditions, as the population in the urban areas grow, so does the concrete jungle, it expands and captures the slightest bit of greenery available, for example, deforestation in Nigeria, it is the country with the most amount of deforestation, the forest fires have made the situation worse as the country is underdeveloped, resulting in lack of funds to recover from the aftereffects of the two catastrophes. Primary production has fallen over the

years and the governments are keener on spending in the tertiary and secondary sector, this particularly is a bad thing because it leaves a lot of people unemployed and creates a disbalance in the economy, thus directly affecting the countries' current account.There are several factors that come into play when discussing urbanization.

Understanding the value of forests

In most cosmopolitan cities, people do not understand the value and importance these forests hold the claim is backed by the US National Library of Medicine. Since they live away from nature (some may say they've never felt or seen what real nature looks like) they assume that nature, trees, forests have nothing to do with the economic prosperity of the country, in some countries the assumption may be true as some countries are heavily dependent on the secondary and tertiary sector.

Mismanagement

In fewer and poorer countries such as Trinidad and Tobago, people choose to stay and live in rural areas for several reasons, but because they are a smaller number, people in authority and control take advantage of that and overexploit the forestry and agricultural practices, leading to deforestation or simply physically putting the land on fire for raw material. On the contrary, some forests are not managed at all, the land is left abandoned and slowly fuel accumulates in these areas which start a fire, in worst cases, stopping these fires become impossible.

Lack of education

In our growing world nearly 53% of people are not educated let alone aware of the consequences of these fires, or even leaving forest land on its own, because of the lack of education community members choose to turn a blind eye and not participate which also leads to mismanagement. Furthermore, governments and people need to be educated on the regulation of the latest trends as they result in an uncontrollable rise in the building of houses and hotels, therefore expanding their urban complex.

Major Parties Involved and Their Views

Australia

The occurrence of wildfires in this region is very common, even now during a pandemic over 50 fires are burning in Victoria. 11 million hectares, the lives of 33 people have been taken away from the most recent fire in Australia. It is known to be the home of forest fires because of how often the country is greeted with flames. The fires in the country are of such extent that the authorities declare a state of emergency. An estimate of 1.25 billion animals has been lost from "the land down under". The severity of climate change is one of the main causes of these forests blazing. The fires have released 400 megatons of carbon dioxide which will remain in the environment until the forests grow back (UN Environment. "Ten Impacts of the Australian Bushfires." *UN Environment*, www.unenvironment.org/news-and-stories/story/ten-impacts-australian-bushfires.) Australia is trying to combat wildfires but has a low success rate because of the constant man-made wildfires, they try to control the wildfires but fail to do so leading to a massive explosion of economic downfall and health problems.

United Nations

Countless numbers of UN agencies have been working over decades to help solve the forest wildfire issues at hand, some notable ones have been

- The United Nations Educational, Scientific and Cultural Organization (UNESCO)
- Food and Agriculture Organization (FAO)

UNESCO The United Nations Educational, Scientific and Cultural Organisation is a specialised agency of the United Nations aimed at promoting world peace and security through international cooperation in education, the sciences, and culture. (*UNESCO*, en.unesco.org/.)
works from a technical and operational angle when dealing with forest wildfires. They work on Socio-economic factors and were the ones to develop the 1st scientific conference on "fires in the Mediterranean forests" in 1999. The conference concluded that governments are giving the wrong emphasis by only focusing on the suppression of fires and not solving the issue. Although the conference was a success, countries were unable to control the fires as they needed the trees burnt for uses such as fuel and timber.

FAO is the Food and Agriculture Organization and it was founded in the october of 1945 it has provided technical and informational assistance to countries for over 50 years. FAO analyzes data and advises its member states how to process the guidelines and put it into action. Although there have been doubts in the factual accuracy of FAO their assessments have shown that forests and basins were vanishing at 1.2% per annum. In 1999 FAO held an “expert meeting on the public policies affecting forest fires” it was the first-ever milestone crossed by the global community in terms of forest wildfires, since there was a fair agreement on wildfires with regards to the global community as a whole, however FAO has built a hurtful image for itself where in their research reports have proved to be wrong and inaccurate.

Indonesia

Indonesia has a fire risk all year round with its peak during February and September. Indonesia faced the largest fire between 1982-1983 where two islands were particularly affected and in ashes, the wildfire caused air-quality issues and economic damage from neighboring countries, the El-Nino effect literally added fuel to the fire by its dry conditions causing drier desert-like conditions in the country where countries such as Australia and Sri Lanka complained of haze and low air- quality. This was as good as smoking 80 packs of cigarettes a day. The future possibilities of fires are very high because most fires are caused by humans and not by nature. Indonesia like other countries is unable to cope with the effects of these wildfires and lets it die off.

Greece

Fire seasons in Greece range from June to August, the unfortunate flames had ravaged the Halkidiki peninsula where every time there is fire more than 1000 tourists evacuated. In 2007 they faced their worst fire where the fire blazed from north to south and more than 100 homes were destroyed and 60 lives were lost, and a forest which was the size of an island was wiped away. The possibility of future fires in every bleak as they are seasonal hazards. Greece although it is famous for its tourism, struggles to raise income for the benefit of the economy, the wildfires cause tourism levels to fall too which means the economy and the government are in large debt just trying to recover from the aftermath of the fires.

Russia

Fire seasons in Russia range from June to October, and summers can be awful for areas like Siberia because they have seen a 10 fold increase in forest fires in the past 20 years. Russia has lost 11.7 million hectares of land and 23.7 million hectares in the years 2002 and 2003 respectively. And since 2007 they have recorded 140,000 forest fires covering millions maybe billions worth of land. The fires in Russia are usually caused by lightning and therefore are difficult to control. The future possibility of forest fires in Russia are very dire. Scientists think that if climate change increases or gets worse the number of forest fires may increase and the situation at hand may worsen.

Development of Issue/Timeline

Date	Event	Outcome
October 1871	Peshtigo Fire, Wisconsin, USA	Tore northeastern Wisconsin by destroying 1.2 million acres of land and killed 1200 people
1910	Great Fire of 1910. Idaho and Montana, USA	Blazed 3 million acres of land, killed 87 people. The fire died down by rain
12th October 1918	Cloquet Fire, Minnesota, USA	Swallowed 38 towns, 4000 homes and killed 450 people.
1939	Black Friday Bushfires, Australia	Scorched 4.9 million acres of land, 71 people were killed and towns were destroyed.

1950	Chinchaga Fire, British Columbia and Alberta, Canada	3 million acres of land was destroyed, no human deaths, however, the forest fire is recorded as the largest fire in The Guinness World Record Books
6th May - 2nd June 1987	Daxing'anling Fire, China	200 people were killed, 2.5 acres of land was wiped away. Also recorded in The Guinness World Record Books
9th May 1992	Climate Change Convention Convention on Bio-Diversity	Came into action in 1994, signed by 84 states, Kyoto Protocol showed a 55 reduction of greenhouses gases between 1990 and 2008 and 2012.
1994	Desertification Convention	Bought in-laws for rehabilitation and conservation and sustainable management. However, shows a lack of implementation.
1997	Indonesia Wildfires, Indonesia	The fire lasted until 1998, killed 240 people and showed dangerous air levels which threatened lives and air-quality.

2015	Indonesia Wildfires, Indonesia	El-Nino exacerbated the fire and killed 19 people, made the air-quality worse and resulted in dangerous respiratory tract infections.
1st May- 3rd May 2016	Fort McMurray Wildfire, Alberta, Canada	Engulfed 2500 homes, forced 88,000 people to flee and cost the government 3,6 billion worth of insurance
17th June 2017	Portugal Wildfires, Portugal	Caused by a thunder-storm, killed 60 people and burnt 100,000 acres of land.
2018	Attica Wildfires, Greece	100 people died, 1000 buildings destroyed.
2019	Siberia Wildfires, Russia New South Wales Bushfires, Australia	Estimated $100 million worth of damage. Burnt 8.2 acres of land 100 bush fires, killed 6 people, blazed 3,9 million acres of land and consumed 700 homes

Previous Attempts to Solve the Issue

In recent years, more awareness is being created about the risk of forest wildfires and the importance of safeguarding these forests and their animal habitat.

International relations

International organizations such as the UNEP and FAO or the WWF. The FAO's is a forest management organization that works to support member countries to fight and deal with the adverse effects of these dangerous flames. UNEP and other "fire-fighting" organizations have it in their mandate and their role to help combat the fires and not solve the problem themselves. The FAO has recently been assisting countries to monitor terrestrial ecosystems in a wholesome and holistic manner.

Identification of fire-prone areas

Governments are using latest satellite technology to identify which areas of the country are more likely to catch fire, not only countries but space organizations such as NASA is helping countries with geo-heat satellite projections to find out about the fire before it could start so that the country can take necessary precautions such as evacuation and putting off of the fire. However any effort made by any organization proves to be inadequate purely because of the fact that countries have their hands tied and any effort they make will lead to another billion dollars being used creating a large opportunity cost

Policymaking

Many countries have built policies to protect people from the wild catastrophes of wildfires. However, countries are uncertain of how to tackle the problem and therefore are only prepared for the aftermath with solutions of evacuation but none as to how to cope with the fires as it is unavoidable. for example the Climate change resolution of 1954, although the policy was signed, countries have made significant effort to reduce the amount of greenhouse gases that have been let out into the atmosphere, it has been effective on a minimal scale where it has helped the environment but not the wildfire situation particularly, as countries need to burn trees and wood in order to have renewable energy and for trade.

Possible Solutions

Policymaking

Governments should come up with policies and must work to save the forests not only because of its economic impact but because of the much-needed survival of the flower and fauna. Countries should come up with strong plans of action to cope with the aftermath of the fires and how to prevent the fires and, probably they could use the climate change convention and focus it in terms of how climate change is affected by wildfires, to understand and set laws about how dangerous wildfires are and evaluate what is more important, political trade or the lives of humans, animals and the environment?

Have a limit of how many forests can be burnt

it is impossible to deprive a country from burning fuel and trees, therefore, governments can come up with a limit, and all those who cross the limit must be fined, for instance, in a year only 500 trees can be burnt and used for trade but not anymore this would allow trees to recover and grow at the same time crops can be grown on the burnt land to use it efficiently and fully.

Use forest byproduct to generate revenue

The burnt plants and trees can be turned into a renewable source of energy and used or sold, this would open an untapped route of income for the economies, so where the fuel would accumulate for fires, they would be accumulating for economic benefit and increased government revenue. Countries should seek help from others such as California in the United States, has opened a whole new market to fund its economy this way countries can not only save their economy but also try to use the forests more effectively. This could not only save the natural surroundings but also boost the economic condition of the country. NGOs such as ready for wildfire help countries to take precaution for wildfires, by working hand in hand with them the countries would be able to save a great deal of damage and profit from any damage caused.

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Appendix

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