September 2022

HNP Newsletter

Background Photo Credits: (BBC News, 2022) (Staff, 2022) (Carvalho, 2021)

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(IndiaSpend, 2022)

(IMDC, 2020)

SOMALIA

DROUGHT OF 2022

Somalia is an African country and is the easternmost country in the Horn of Africa. To the north is the Gulf of Aden, the East and South is the Indian Ocean, and Ethiopia and Kenya to the West. A fun fact is that colonial powers determined Somalia's border; hence Somali communities live in bordering countries (Lewis, 2022). The country is mostly desert but has mountains in the north. Due to its seasons, it has irregular rains, and there are often droughts.

Typically, Somalia has four seasons, consisting of two rainy and dry seasons. The Gu is the primary rainy season which happens from April to June. The Xagaa is a dry season from June to September. The second rainy season is the Dayr, from October to December, and the dry season is Jilaal, from December to March (Lewis, 2022).

Currently, Somalia is suffering from a severe drought. It suffered significant droughts in 2011-2012, 2016-2017, and now in 2021-2022. The current drought is due to the Gu season ending early in 2022.

The northern areas had 30%-36% of the average rainfall, while central and southern Somalia recorded 45% - 75% of the average rainfall (OCHA). Additionally, it is the "fourth consecutive failed rainy season since late 2020", meaning the country is already in a fragile state, and the 2022 Gu only worsened it (OCHA). The decreased rainfall in their recent seasons, attributed to climate change, sent the country into a severe drought. Furthermore, rain is not predicted until Dayr, the next rainy season in October 2022, meaning the country has to live on already very little water.

Other countries at risk of extreme droughts are Zimbabwe, Djibouti, Mauritania, and South Africa (Statista, 2020). These countries are all in Africa, and many have a similar climate to Somalia, as they all have seasons where there is abundant precipitation and seasons where it is very little. There is major dependence on these rainy seasons to supply the water needed for the dry season, meaning if the rainy season is sparse, it can send the country into severe droughts.

The situation in Somalia is grave but has struggled to gain attention. Only three percent of the $1.46 billion required to meet the needs of Somalis has been secured by the UN so far ("UN worried about lack of funds to tackle Somalia drought," 2022). Additionally, the time people have to save Somalia is running out. The UN humanitarian coordinator for Somalia, Adam Abdelmoula, warned that acting late can place Somalia in an extreme situation as early as June ("UN worried about lack of funds to tackle Somalia drought," 2022). As the drought continues, acute malnutrition is spotted in many children. In Baidoa, 1,000 children sent to an outpatient therapeutic feeding program within a week discovered that 30% percent of the children were acutely malnourished (MSF, 2022). Some families even had to leave one of their children to die to save others (MSF, 2022). The longer this crisis continues without help, the more these situations will occur.

Contributing to this severe crisis is possible without directly communicating with the people in need. There are organizations people can donate to, such as the UN World Food Programme (WFP), and with the funds received, they can help more citizens in Somalia. Luckily, for those who cannot donate, there are other ways to help. Raising awareness about the situation can inform others and catch the attention of those who can donate.

(Lewis, 2022)

(IMDC, 2020)

Events RECAP

ECO-CAREER WEBINAR SERIES

Our Eco-Career Webinar series was a success with over 90 participants internationally! It took place on Sunday, July 24 from 5:00 to 6:30 pm EST. We explored different careers in the field of environmental sciences and learning about possible pathways. Guest speakers talked about their experiences and challenges while pursuing an eco-career. The event was joined by participants of ALL AGES and there were OVER $170 IN PRIZES!! Participants got to meet 3 guest speakers virtually. First speaker was Lisa Chen who is a Marine biologist and educator. She has completed a Master of Marine Management degree at Dalhousie University. Second speaker was Chris Kallick. He owns a small plant nursery, selling primarily berry plants and fruit trees. His goal is plant propagation and teaching others to be sustainable. The last speaker was Josh Dewitt and is in the Environmental Biology sector.He works for the Canadian Wildlife Federation as a Youth Leadership Specialist for the WILD Outside program. We hope you all had a a great time attending and that you had found the event insightful! Thank you for all of you that attended as this event could not have been possible without your energy and enthusiasm!

Air Pollution

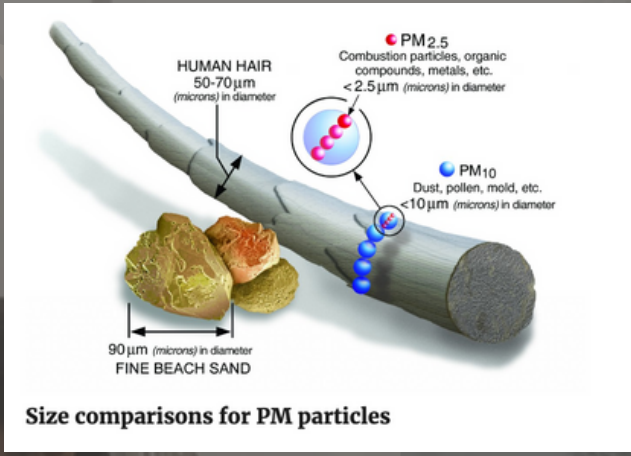
IN INDIA

INTRODUCTION

The release of pollutants in the air harmful to human health and the planet is known as air pollution. Air pollution is a common issue faced by people across the globe; however, some countries are more affected by this issue than others. India is ranked fifth among the most polluted countries in the world in 2021 by World Air Quality Report. Its vast landscapes and populous state of over 130+ crore people make this issue very crucial (TimesNow, 2022). Actions to reduce air pollution are urgently required, or a massive chunk of the population will face health concerns, and India's rich landscapes and biodiversity will be lost.

PM 2.5

India's population, which includes 1.4 billion people, is exposed to unhealthy levels of Particulate matter (PM) 2.5. PM 2.5 is the most harmful pollutant because these fine particles can penetrate deep into the lungs and enter the bloodstream (EPA, 2022).



(EPA, 2022)

People exposed to these particles may get deadly heart and lung diseases, including lung cancer, stroke, and heart attack. PM 2.5 comes from common sources such as emissions of fossil fuels (coal, oil, wood, charcoal). It can also arise from windblown dust, including natural dust, and dust from construction sites and roads. Over 50% of PM 2.5 comes from secondary emissions, which include emissions from agriculture, industry, power plants, households, and transport. The secondary emissions can spread further than the primary emissions of PM 2.5 (The World Bank, 2021).

Human health is not the only thing affected by air pollution in India. India is known for its expansive, breathtaking landscapes and biodiversity. Air pollution heavily impacts ecosystems as they lose their ability to function and grow– emission results in acidification, which is acid rain falling on the vegetation and soils (NRDC, 2021). Acid rains form when mixed with harmful pollutants in the air. Acidification prevents the ecosystem from delivering any ecosystem services such as nutrient cycling, carbon cycling, and adequate water supply (UNECE, n.d.). The polluted air also enables the critical processes of plants that are required to grow by damaging their cell membranes. The loss of plants will eventually lead to species loss as many species rely on plants and ecosystems for food and habitat. The loss of an ecosystem leads to the loss of biodiversity.

(iStock, 2022)

WAYS TO REDUCE AIR POLLUTION

India is taking crucial steps in order to combat this issue. There has been a strong emphasis on using renewable energy, enhancing electric vehicles, and providing LPG cooking fuel to millions of households to reduce air pollution. The National Clean Air Programme (NCAP) of India's government is taking the initiative to resolve the detrimental state of air quality by setting a time-bound goal(IndiaSpend, 2021). The focus is on 132 cities where air pollution standards are not met, and NCAP is providing them with a foundation and guidelines for developing air quality. The government of India has also kept 1.7 billion dollars to combat air pollution in the 42 most populous cities over five years. Every year, the aim is to reduce air pollution by 15 percent (Jaiswal, 2019).

(Jaiswal, 2019)

(Jaiswal, 2019)

Background Photo Credit: (Irfan, 2017)

Community Clean Up

Date: October 9, 2022

TIME: 9:00 AM - 1:00 PM EST

Location: Samuel Connor Pond (Royal West Dr, Brampton, ON L6X 0V4)

WHY SHOULD YOU ATTEND?

Sick and tired of walking around and seeing trash littered everywhere? By removing garbage in this park, we can improve the conditions of the environment and protect the animals and their natural habitat. It will also serve as a better experience for those who visit the park regularly! Together we can create a greener and healthier environment and keep toxicity out for as long as we can!

Prizes: Check out our Instagram page for further details!!

Loss of Biodivsity In The Amazon Rainforest

WHAT ARE THEY?

Brazil's deforestation of the Amazon rainforest has hit a six-year high, the National Space Agency, INPE, reports. The Brazilian Amazon lost about 18 trees per second in 2021 as deforestation in the country increased by more than 20 percent, according to a satellite data-based report (The Korea Times, 2022). The Mapbiomas report said the country lost about 16,557 square kilometers (1.65 million hectares) of Indigenoua vegetation in 2021. In 2020, the area lost was 13,789 square kilometers. The report stated that nearly 60 percent of land deforested in 2021 was in the Amazon, the world's largest tropical rainforest (BBC, 2022).

In the last three years, coinciding with the presidency of conservative, far-right President Jair Bolsonaro, the amount of trees lost in Brazil was about 42,000 square kilometers. About 3,988 square kilometers (1,540 square miles) of land were cleared in the region between January and June. During the same time period, 3,088 square kilometers of the rainforest were destroyed as well (BBC, 2022).

Researchers have concluded from over three decades worth of satellite data that the health of the Amazon rainforest is deteriorating. It is said that there were signs of the loss of stability in more than 75% of the forest, with trees taking longer to recover from the effects of droughts primarily motivated by climate change and human destruction such as deforestation and fires (BBC, 2022).

At the COP26 climate change summit in Glasgow last year, more than 100 governments promised to stop and reverse deforestation in the Amazon by 2030.

IMPACTS AND THREATS TO: BIODIVERSITY, WEATHER PATTERNS, AND INDIGENOUS COMMUNITIES

The Amazon plays an essential role in the planet's oxygen and carbon dioxide cycles, absorbing vast amounts of greenhouse gasses from the atmosphere. The Amazon is the world's largest rainforest, but its trees are sold for their wood and to clear space for crops that, in exchange, supply global food companies.

(Butler, 2021)

As well as being abundant in biodiversity, the area is home to communities who say they need to use the forest for mining and commercial farming to make a living. At the same time, Indigenous communities living in the Amazon fight to protect the rainforest and their ways of life.

(DAZED, 2019)

Clearing land for farming was the inciting factor for the destruction of the Amazon, accounting for almost 97 percent, with illegal mining also a significant factor. Environmentalists accuse Bolsonaro of encouraging deforestation for economic gain, weakening research and protection agencies (BBC, 2022).

SOLUTIONS

It is essential to protect Indigenous people and their rifts. The Amazon rainforest is home to about one million Indigenous people. Moreover, promoting outstanding scientific research on the importance of biodiversity loss and understanding the significance Amazon serves for the planet must be provided mainly for Brazilians. Over 600 new species of plants and animals have been discovered in the Amazon (BBC, 2022). However, these species are often discovered after their habitats have been destroyed or are already at risk—investing in more scientific research programs such as Tatiana de Carvalho, a scholarship program for students researching the Amazon (BBC, 2022). Without access to research or study, there will be little to no knowledge of the risks of biodiversity loss.

(Ruiz, 2019)

(Ruiz, 2019)

(Thomson, 2020)

Background photo credit: (Stolte, 2021)

Executive of the Month

congratulations

Sierra Yoo

Hi! My name is Sierra and I'm in my first year at the University of Toronto, studying Life Sciences. In my free time, I enjoy drawing, reading, most of all, badminton! I'm so excited to make meaningful contributions towards promoting a greener future! As of now, there are so many environmental concerns that staying idle is increasingly becoming more problematic, so raising awareness about how we can cater our lifestyles to more sustainable use of the planet's natural resources is super important!

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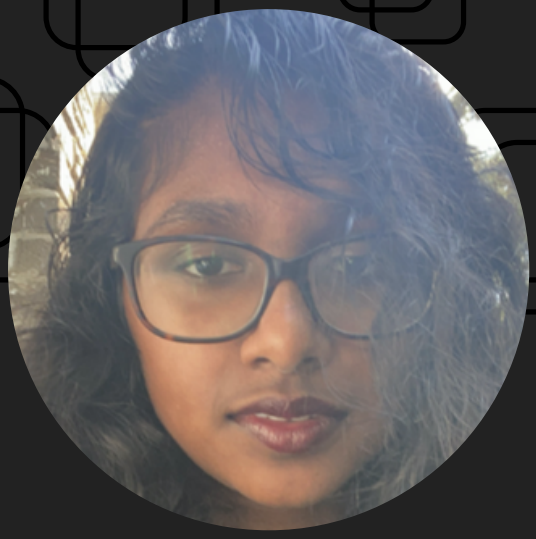
Meet Our Comms Team

NEELAKSHA SRISANGAR

Communications Director



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