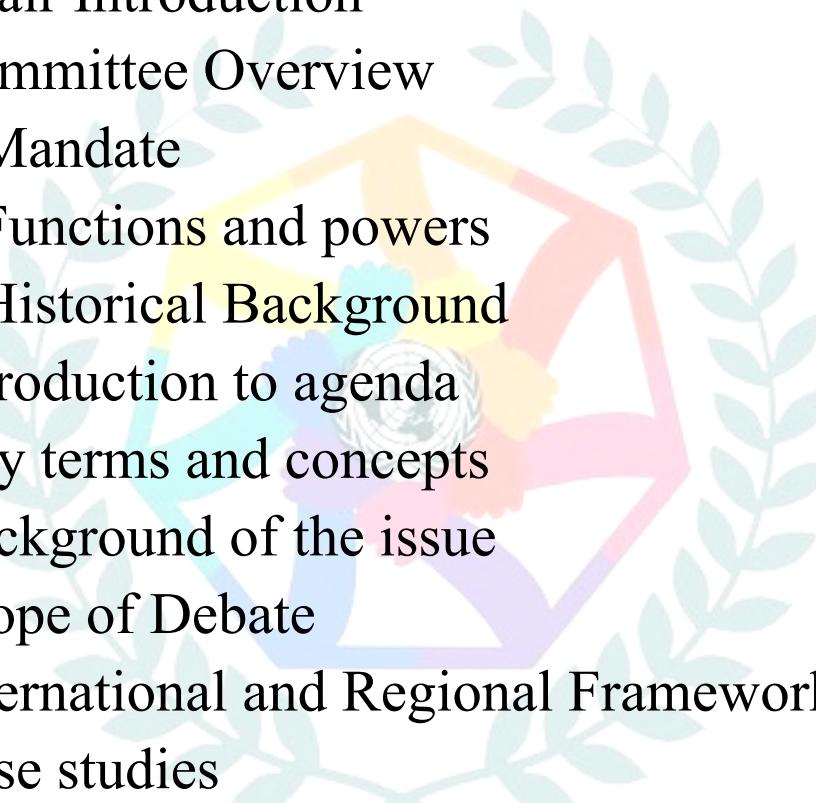


—Background Guide NMMUN'22 —



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Chair Introduction

We are delighted to welcome you to the United Nations Environment Programme at the New Millennium Model United Nations! I am Antony Thaikadavil, and I will be your chairperson. I will be your mentor and help you introduce an agenda and stir up discussions throughout the council proceedings. We hope this document guides you to uncover solutions to the pressing issues at hand. Please note that as your research is not restricted to the guide, we highly recommend analyzing and examining your nation's policies and framework by using external sources. As MUNs are formal sessions regarding vital issues, we expect you to abide by the Rules of Procedure and hope you learn and enhance the art of diplomacy and public speaking. Since the conference is being held virtually this time, only one topic will be debated upon.

I understand the concerns and anxieties that some of you might have in light of the event being virtual, but we want to assure you that we will constantly be here to help you and to make sure that your experience is fruitful and enjoyable.

Regards,
Antony Thaikadavil

Committee Overview:

Since its founding in 1972, the United Nations Environment Programme (UNEP) has been the international organization in charge of establishing the environmental agenda, fostering the consistent application of the environmental dimension of sustainable development within the framework of the United Nations, and acting as a credible spokesperson for the environment on a global scale. The United Nations Environment Programme (UNEP) is the highest order of environmental authority . In addition to assisting in the implementation of environmental commitments at the national, regional, and international levels, UNEP utilizes its knowledge to enhance environmental standards and practices. The goal of UNEP is to inspire, enlighten, and enable nations and peoples to enhance their quality of life without compromising that of future generations in order to give leadership and promote collaboration in environmental protection. The goal of UNEP is to inspire, enlighten, and enable nations and peoples to enhance their quality of life without compromising that of future generations in order to give leadership and promote collaboration in environmental protection.

UNEP helps Member States make sure that environmental sustainability is taken into account when planning investments and development projects, and it gives developing nations the skills and technology they need to safeguard and repair the environment. Partners who support and fund the mission enable it to carry out its activities. 95% of UNEP's funding comes from voluntary donations.

Mandate

The UNEP was formed with the sole aim of rejuvenating the environment from its present condition. The responsibilities and mandate of the UNEP centered towards the betterment of the environment. It focuses to promote environmental cooperation on a global scale and provide relevant policies to achieve this goal; Offer overall policy direction for the direction and coordination of environmental programs within the United Nations organization, Comprehend and evaluate the Executive Director's periodic reports on the execution of programs for the environment run by the United Nations system; Continue to monitor the state of the environment globally to make sure that new global environmental issues are given suitable and sufficient analysis by Governments; Encourage the relevant international scientific and other professional communities to contribute to the gathering, evaluating, and sharing of environmental knowledge and information as well as, as necessary, to the technical aspects of developing and carrying out environmental programs within the framework of the United Nations; Continue to evaluate the effects of national and international environmental policies and measures on developing nations, as well as the issue of additional costs that developing nations may incur in implementing environmental programs and projects, and to ensure that such programs and projects shall be compatible with the development plans and priorities of those nations; and review and approve the program of utilization of resources of the Environment fund.

Functions and Powers

The exclusive function of UNEP is simply environmental governance. In order to achieve sustainable development at the national, international, and regional levels, as well as to mainstream environmental considerations in development planning,

UNEP assists governments in establishing, putting into place, and strengthening the necessary procedures, institutions, laws, policies, and programs. Responsibility for environmental law is shared by two distinct UNEP program areas. The regional seas conventions are the responsibility of the ***Oceans and Coastal Areas Programme Activity Center (OCAPAC)***. All of UNEP's additional environmental law-related operations are managed by its ***Environmental Law Unit***. The Law Unit (or OCAPAC) creates draft documents for the majority of UNEP convention and guideline discussions. The text is then reviewed and revised by a special working group of legal and technical experts assembled by UNEP. When a working group agrees on non-binding recommendations, UNEP sends the recommendations to the Governing Council for review and potential approval. If the topic is a legally binding document, UNEP calls a diplomatic gathering to discuss, perhaps adopt, and sign the document.

Historical Background

The United Nations Environment Programme (UNEP) was created as the UN system's environmental watchdog during the 1972 Stockholm United Nations Conference on the Human Environment.

The mission of UNEP has always been to promote economic growth that is compatible with environmental conservation. At the UN Conference on Environment and Development (The Earth Summit) in Rio de Janeiro in 1992, which placed great emphasis on promoting sustainable development—"development that meets the needs of the present without compromising the ability of future generations to meet their own needs"—this aspect of UNEP's role was significantly strengthened.

In order to establish environmental management plans, UNEP has closely collaborated with business, and from the start of the 1990s, it began working with forward-thinking institutions in the financial services industry.

The UNEP Statement of Environmental Commitment by the Insurance Industry was introduced in 1995 as a result of collaboration between UNEP and a number of top insurance and reinsurance firms, including General Accident, Gerling Global Re, National Provident, Storebrand, Sumitomo Marine & Fire, Swiss Re, and pension funds. Companies who have signed this voluntary commitment promise to work toward striking a balance between economic growth, human wellbeing, and environmental sustainability. The Statement recognizes the precautionary principle and the concepts of sustainable development. Additionally, it exhorts insurers to include environmental factors in both their internal and external business operations.

ISSUE I-

Responding and minimizing the disasters and conflicts around the globe.

Introduction to the agenda

The ecosystem is frequently significantly impacted by catastrophes and complicated situations. Rapidly identifying and reducing environmental dangers is thus a crucial component of an emergency response. Countries that are experiencing an environmental emergency—defined as disasters or accidents brought on by natural, technological, or human-induced hazards, or a combination of these—often need technical assistance and specialized knowledge to respond quickly, minimize negative effects, and recover. More than two billion people have been impacted by these catastrophic catastrophes, which also damage infrastructure, uproot communities, and seriously jeopardize human security. Additionally, they exacerbate poverty and undermine the foundation of sustainable development. 28 nations have received assistance from UNEP during the past two years to lower their risks of natural catastrophes, industrial mishaps, and armed

conflicts. How successfully UNEP can incorporate ecosystem-based approaches to disaster risk reduction (DRR) and peacebuilding into the larger UN's guidelines, policies, and programs will serve as a critical metric for success at the global level. Ten key UN policies, directives, and programs—bringing the total to 23—now represent best practices in sustainable natural resource management. The goal of 20 by the end of 2015 has been surpassed. Through online DRR training, UNEP is now actively influencing the next generation of policymakers. The United Nations Environment Programme (UNEP) is striving to address natural catastrophes, industrial mishaps, and crises brought on by people across the world. As delegates in the UNEP, delegates must strive to help dozens of crisis-affected nations and territories especially in countries undergoing deeply aggravating environmental conditions.

Key terms and Concepts

“Since disaster risk is a sign of underdeveloped areas, it is necessary to include DRR policy and DRM practice into sustainable development objectives in order to reduce disaster risk.”

Disaster Risk Reduction (DRR): DRR must engage all facets of society, including the government, non-governmental organizations, the professional and commercial sectors, since it is a component of sustainable development. As a result, it calls for a multi-sector, people-centered strategy that focuses on developing resilience to a variety of interrelated, cascading threats.

Disaster Risk Management (DRM): Activities related to crisis preparedness and response are included in disaster risk management (DRM). DRM comprises tactics to:

- Prevent the creation of new hazards

- Deal with existing threats
- To avoid disaster losses from being absorbed by other development results and causing further poverty, share and disperse risk.

Building regulations and other structural risk-reduction measures like land use planning go under the structural category, whereas non-structural measures like policy creation and awareness-raising are under the non-structural category. Risk governance describes the institutional structures, legal framework, decentralization, and methods for accountability and involvement that governments, civil society, and other players use to organize DRM. There is strong evidence to support the idea that low-income nations with poor governance are more susceptible to catastrophe risk.

Armed conflicts and environmental degradation (inter-relation):

It is true that armed conflicts lead to environmental degradation but at the same time, climate change triggers wars as well. **The Geneva Call** has personally experienced this deterioration over the years. Parties to armed conflicts have destroyed the environment in the majority of the nations where they serve, from the Democratic Republic of the Congo to Colombia or Myanmar, in order to undermine their adversaries or amass wealth. Around the world, there are numerous reports of crop burning, water poisoning, poaching, logging, and other crimes that all enhance the vulnerability of the communities that depend on these resources for survival. There are various ways that the environment gets harmed. Due to the deployment of certain weapons and combat tactics, such as the use of explosive devices or the lighting of oil fields on fire, it is directly targeted or sustains unintentional damage. It is also influenced by harm to or destruction of the built environment, such as when conflict interferes with the infrastructure needed to provide water, sewage, or electrical services. Deadly landmine contamination can also put the environment at risk for climate change by bringing toxic and non-biodegradable trash into the environment, endangering biodiversity by causing soil erosion, and obliterating plants and animals during explosions. Environmental devastation brought on by conflicts, together with the damaging effects of endless

logging and other extractive activities that fund the war economy and socio economic instability, endanger human health, livelihoods, and security, ultimately undermining any peace attempts. Additionally, violent conflicts involving the management of natural resources and the security of land tenure are becoming more evident as having enough food is currently a major challenge for most people due to environmental damage and changing weather patterns that affect harvests all over the world.

Parallelly, there is a situation wherein, 14 of the 25 nations assessed to be the most susceptible to climate change are embroiled in violent war. This doesn't mean climate change directly leads to armed conflicts but depleting resources due to climate variations can lead to violence. For e.g. In the 1970s, West Africa was affected by a protracted drought that resulted in famine. Due to floods in the beginning of 2019, grazing land became scarce south of Gao. Pastoralists feared being assaulted by armed gangs or bandits if they traveled with their animals. Instead, they frequently congregated around water supplies, inflicting conflict on farmers and fishers. Herders were compelled to sell their weaker animals for less money as they deteriorated.

They were unable to travel to more distant cattle markets, where they would have hoped to get better deals, due to insecurity. Due to the violence, state representatives and possible governmental backing were not present. Violence also severely restricted access for humanitarian purposes.

In other words, starving herders watched as their few resources withered while they struggled to provide for their family.

Confronting Conflict pollution:

They are described as "activities to conserve, sustainably manage, and restore natural or modified ecosystems, that handle societal concerns efficiently and adaptively, while concurrently offering benefits to human well-being and biodiversity" by the International Union for Conservation of Nature. They are seen

as essential to halting the destructive consequences of resource exploitation, pollution, and the already obvious results of the global climate catastrophe. These ideas can aid in resolving a variety of environmental issues the world is now experiencing. If environmental resilience and restoration are to stop the loss of biodiversity and lessen the effects of natural disasters and climate-related threats, realistic and mainstream nature-based solutions must be incorporated into policy and response frameworks.

Refer to: <https://ceobs.org/how-does-war-damage-the-environment/>

Background of the Issue

Disasters

According to a thorough new analysis from the World Meteorological Organization, a disaster connected to a weather, climate, or water hazard happened every day on average during the previous 50 years, killing 115 people and incurring US\$ 202 million in damages per day (WMO). Over the past 50 years, there have been five times as many catastrophes, mostly as a result of climate change, more intense weather, and better reporting. However, as a result of better early warning systems and disaster management, the death toll was practically halved. Over 11 000 documented catastrophes with little over 2 million fatalities and US\$ 3.64 trillion in damages were ascribed to these hazards globally between 1970 and 2019, according to the WMO Atlas of Mortality and Economic Losses from Weather, Climate, and Water Extremes (1970-2019). The paper is the most thorough analysis to date of the economic losses and death caused by weather, water, and climate extremes. Both the full 50-year span and each individual decade are evaluated.

Table 1. Top 10 disasters ranked according to reported (a) deaths and (b) economic losses (1970–2019)^a

(a)	Disaster type	Year	Country	Deaths
1	Drought	1983	Ethiopia	300 000
2	Storm (<i>Bhola</i>)	1970	Bangladesh	300 000
3	Drought	1983	Sudan	150 000
4	Storm (<i>Gorky</i>)	1991	Bangladesh	138 866
5	Storm (<i>Nargis</i>)	2008	Myanmar	138 366
6	Drought	1973	Ethiopia	100 000
7	Drought	1981	Mozambique	100 000
8	Extreme temperature	2010	Russian Federation	55 736
9	Flood	1999	Bolivarian Republic of Venezuela	30 000
10	Flood	1974	Bangladesh	28 700
(b)	Disaster type	Year	Country	Economic losses (in US\$ billion)
1	Storm (<i>Katrina</i>)	2005	United States	163.61
2	Storm (<i>Harvey</i>)	2017	United States	96.94
3	Storm (<i>Maria</i>)	2017	United States	69.39
4	Storm (<i>Irma</i>)	2017	United States	58.16
5	Storm (<i>Sandy</i>)	2012	United States	54.47
6	Storm (<i>Andrew</i>)	1992	United States	48.27
7	Flood	1998	China	47.02
8	Flood	2011	Thailand	45.46
9	Storm (<i>Ike</i>)	2008	United States	35.63
10	Flood	1995	Democratic People's Republic of Korea	25.17

Weather, climate, and water risks caused 50% of all disasters, 45% of all recorded fatalities, and 74% of all reported economic losses between 1970 and 2019. More than 91% of these fatalities took place in underdeveloped nations (using the United Nations Country Classification). Droughts (650 000 deaths), storms (577 232 deaths), floods (58 700 deaths), and severe temperatures were among the top 10 catastrophes that caused the greatest number of fatalities (55 736 deaths). From 1970 to 2019, there was an almost threefold drop in deaths. Less than 20 000 people died in the 2010s, compared to nearly 50 000 in the 1970s. There were 170 associated fatalities each day on average in the 1970s and 1980s. This average decreased by a third in the 1990s to 90 linked fatalities per day, and it continued to decrease through the 2010s to 40 related deaths per day. The top 10 occurrences in terms of economic damages are storms (521 billion US dollars) and floods (115 billion US dollars). Damage of US\$ 202 million happened on average per day during the course of the 50-year period. The amount of economic losses has

multiplied seven-fold since the 1970s. The recorded losses from 2010 to 2019 were seven times more than those reported from 1970 to 1979 (US\$ 49 million), averaging US\$ 383 million per day throughout the ten-year period. The most frequent source of destruction and highest economic losses worldwide came from storms. It is the only risk for which the share that is ascribed keeps rising.

Moreover, over the years, the trend of disasters is only increasing. Flooding is the most common natural disaster since 1990. From 1990 to 2019, a total of 9,924 natural disasters occurred globally, of which 42 per cent were floods.

Trend in the number of natural disasters, 1900 to 2019



Storms including cyclones, hurricanes, tornadoes, blizzards, and dust storms, followed and accounted for 30% of the total natural disasters in this time period. Together, floods and storms account for 71% of the disasters that have occurred since 1990.

Changes in climate conditions, especially the warming of global temperatures increases the likelihood of weather-related natural disasters. Hotter global temperatures increase the risk of droughts as well as increase the intensity of storms and create wetter monsoons. Changes in the severity and frequency of storms, floods, severe temperatures, and wildfires are the best indicators of this.

Natural resources like land and water will be especially vulnerable to more frequent extreme weather occurrences and climate-related calamities.

<https://www.iisd.org/articles/disaster-risk-reduction>

Conflicts

Environmental deterioration and conflict have long been linked. The use of the natural world as a weapon is prohibited by international humanitarian law. This implies that it outlaws premeditated attacks against the environment, such as the exploitation of natural resources and the use of techniques to alter the environment, including the use of herbicides to disturb an area's ecological balance. For instance, the Russian incursion in Ukraine continues to cause grave human rights violations, thousands of civilian deaths, and injuries. Additionally, it is destroying nature, consuming enormous amounts of energy, emitting massive amounts of greenhouse gasses that alter the climate, and polluting the air, water, and land.

Including their right to live in a clean, healthy, and sustainable environment, this environmental destruction is worsening the devastating human rights repercussions of the invasion for people in Ukraine and will continue to do so for years to come, even after the battle is over. Additionally, it has significant adverse effects on the rest of the world. War's high energy consumption worsens the climate catastrophe through both direct military activity-related greenhouse gas emissions and indirect global repercussions. As an illustration, several nations have declared intentions to increase coal, gas, and oil output in reaction to the conflict. The massive reconstruction and restoration projects that will be needed in Ukraine after the conflict will cost many billions of dollars and use up a lot of energy and other resources, adding to the environmental stresses already present in the globe. Conflict scenarios can also lead to the destruction of tens of thousands of structures and other significant infrastructure that is necessary for the exercise of human rights. For instance, millions of people no longer have access to clean drinking water, which violates their water rights. The United States is the greatest emitter of

greenhouse gasses and the world's biggest user of oil. Climate change is disproportionately impacted by the Department of Defense. Due in major part to lobbying from the United States during the negotiation of the 1992 Kyoto Protocol, these military emissions are not counted in the country's overall emissions totals, despite the fact that they directly contribute to climate change and the danger of a warming world. Additionally, American military operations directly harm the ecosystem. Weapons and military equipment emit harmful dust and pollute the air. Wildlife is badly damaged, and water supplies are compromised. Just as one illustration, it has been suggested that environmental contamination brought on by the Iraq war may contribute to diseases including cancer, birth abnormalities, and others. The natural landscapes of these nations have been severely impacted by the conflicts in Iraq, Afghanistan, and Pakistan. Military vehicles consume petroleum-based fuels at a very rapid rate, and in addition to carbon dioxide (CO₂), they also emit large quantities of sulfur dioxide, nitrogen oxides, hydrocarbons, and carbon monoxide in the conflict zones. The public health of US service members and civilians living in conflict zones has been negatively impacted by the air pollution produced by military equipment and vehicles.

Forest and land

Millions of tons of carbon dioxide are released into the atmosphere, for instance, when oil fields are set on fire, and cattle and other animals are killed by the free-flowing crude oil. Large amounts of greenhouse gasses may be injected into the atmosphere as a result, which can also contribute to climate change. However, anything that drives people away, even armed conflict, may be good for animals or ecosystems since it gives that place a break from the effects of civilization.

Armed organizations may occupy rural and woodland regions during a battle because they provide bases and cover. This stops people from settling there and utilizing the resources there. The cessation of hostilities also opens a window for the exploitation of previously inaccessible natural resources. Therefore, it is crucial to take action to stop deforestation and excessive use of natural resources as a civilization transitions from one of conflict to one of peace. Rebel forces found

cover and sanctuary in crucial biodiversity hotspots in Colombia, the Democratic Republic of the Congo, and South Sudan. However, this was devastating for protecting animals and forests since these environments allowed for unauthorized logging, unrestricted mining, widespread poaching, and the reproduction of exotic species.

Air

Large-scale military might is used during wartime. The invention, testing, and essential instruction in the use of military gear, weaponry, and weapons is the first step in how war activity affects the environment, especially air pollution. Studies (C. Protopsaltis, Chamber of Technology, Greece) show that several countries engaged in the development of nuclear weapons between 1945 and 2009, including more than 2000 tests over the course of 64 years. These have an impact on people, animals, and plants in addition to the air quality and the natural airflow over land and water.

Water

The same applies to bodies of water. Wetlands, which are home to numerous birds and animals, are impacted. Pumping is another difficulty that comes up. If the landmines are not pumped, the groundwater can dissolve mercury, arsenic, and lead. According to UNEP, water infrastructure has been destroyed in Gaza, Yemen, and other places, creating hazards to the environment and human health. This infrastructure includes groundwater wells, wastewater treatment facilities, pumping stations, and desalination plants.

Given the many effects conflicts have on the environment, recovery is still a long way to go.

Scope of Debate

Frightening inter-linked climatic disasters

1. Fires in the Amazon are being sparked by global hunger.
2. Arctic heatwave: Creating a climate catastrophe
3. Beirut explosion: what happens when the world abandons a ship
4. Floods in central Vietnam - When being prepared is no longer sufficient, the Chinese Paddlefish extinction occurred. This fish survived the demise of the dinosaurs but not that of humanity.
5. How the COVID-19 pandemic is highlighting the importance of biodiversity
6. The combination of a cyclone and a pandemic in Cyclone Amphan The desert locust outbreak: How controllable risks become unmanageable
7. Bleaching of the Great Barrier Reef: Losing more than a natural marvel
8. Texas cold wave: An avoidable disaster?

Globally, the frequency of extreme weather, diseases, and man-made disasters is rising, making it harder than ever to keep up with the associated changes and effects. A series of calamities that broke records occurred in 2020–2021: the COVID-19 pandemic, a cold wave that wrecked Texas, wildfires that burned over nearly 5 million acres of the Amazon rainforest, and nine severe storms that hit Viet Nam in the space of only seven weeks. Both the current disasters and those that will occur in the future can be better comprehended by looking at past occurrences through the lens of interconnection. The recent warmth in the Arctic and cold snap in Texas are two examples of this. The Arctic saw the second-highest air temperatures and second-least amount of sea ice cover in the region's history in 2020. The polar vortex, a rotating mass of frigid air above the North Pole, is made unstable by the warming Arctic, enabling colder air to travel southward into North America. Thus, variations in Arctic temperature have an impact on places that are distant from the Arctic and probably also had a role in the below-freezing temperatures in Texas, a state that is accustomed to mild weather all year round. The power grid froze up, leaving 4 million people without electricity, and 210 people died as a result. As was the case with the COVID-19 epidemic and Cyclone Amphan in the border area of India and Bangladesh,

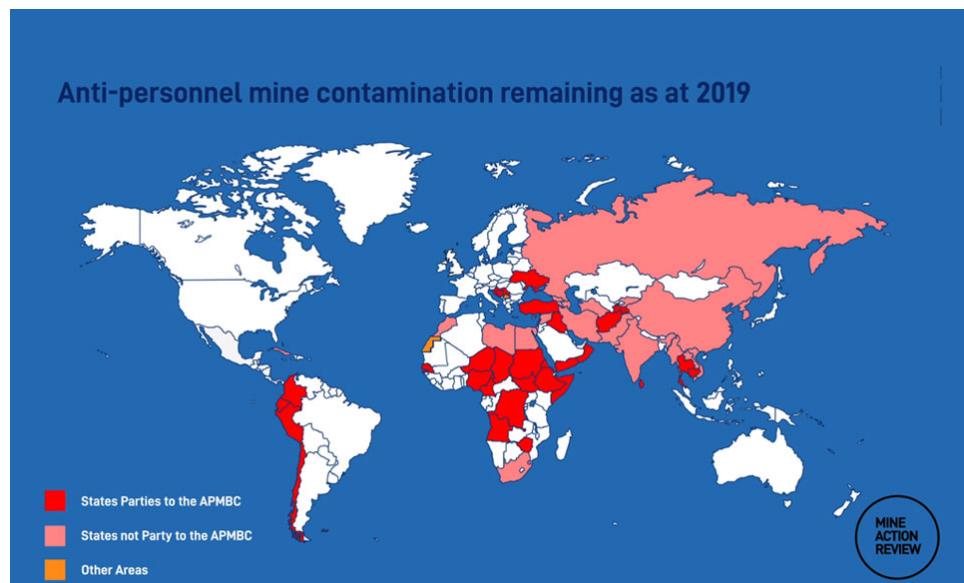
disasters also frequently strike at the same time and exacerbate one another. The COVID-19 pandemic and subsequent lockdowns in a region where nearly 50% of the population lives below the poverty line left many people without employment options, including migrant workers who were compelled to return to their home regions and were housed in cyclone shelters while under quarantine. Many individuals chose not to evacuate to shelters when Cyclone Amphan reached the area because they were worried about social isolation, hygiene, and privacy. Instead, they withstood the storm in public places. As a result of the "super" cyclone's destruction of health facilities and an increase in COVID-19 cases in some places, the conditions for a pandemic response were made worse. Amphan alone resulted in approximately 100 fatalities, losses over 13 billion USD, and 4.9 million displaced individuals. Calamities frequently share common causes, which implies that they are linked by the same underlying elements that foster the circumstances necessary for these otherwise unconnected disasters to happen. The most common root causes of the events in the analysis, according to the new report Interconnected Disaster Risks, are human-caused greenhouse gas emissions, inadequate disaster risk management, and undervaluing environmental costs and benefits in decision-making. Texas's frigid temperatures were brought on in part by human-caused greenhouse gas emissions, but these emissions also play a role in the development of super cyclones like Amphan, which caused a completely different calamity in a very other region of the planet. Inadequate disaster risk management was one of the factors that led to Texas's high death toll and excessive infrastructure damage during the cold wave, and it was also a factor in the huge losses brought on by the floods in Central Viet Nam. Disasters, however, are not just linked to one another; they are also linked to each of us as people. Due to the necessity for cropland to cultivate soy, which is used as poultry animal feed, the Amazon has experienced a record rate of deforestation and wildfires. This indicates that some of the primary causes of catastrophes are really impacted by people's behavior far from the actual site of the occurrence.

Harmful causes of environmental degradation during conflicts

During wars, environmental degradation is caused by various factors including but not necessarily limited to:

1. Production, testing and use of Nuclear Weapons
2. Aerial and Naval Bombing
3. Use of Landmines*
4. Despoliation, Defoliation and Toxic Pollution
5. Attacks on civilian resources like dams
6. Internal conflicts within countries
7. Use of resources like water as weapons
8. Collateral Damage

Landmines set in motion a series of events leading to environmental degradation in the forms of soil degradation, deforestation, pollution of water resources with heavy metals and possibly altering entire species' populations by degrading habitats and altering food chains. Additionally, landmines are usually placed near hospitals or sanitation facilities, impacting the ability to preserve human health. In certain cases, there is a repetitive geographical coincidence between mine-affected zones and biodiversity hotspots. An urgent threat to the environment's health are land mines. Currently, there are between 60 and 70 million landmines spread throughout more than 70 nations. They are intended to murder or maim humans, including civilians, and each week they reportedly kill 800 people and injure 1,200 more. The majority of landmine injuries are severe, and 300,000 people worldwide have been rendered crippled as a result of them. The very contentious issue can



only be handled by stopping the placement of new mines, demining existing mined regions, and dealing with the damage that has already been done to people's lives and the environment. Environmental health professionals should become involved in raising awareness of the issue, enhancing assistance for victims of landmines, and encouraging political initiatives to outlaw them. The late Princess Diana's engagement with the HALO Trust's efforts significantly raised awareness of the problem of anti-personnel landmines. After Princess Diana passed away in 1997, a disarmament agreement called the Anti-Personnel Mine Ban Convention was formed. It went into effect in 1999. Anti-personnel mines are prohibited from being developed, produced, acquired, stockpiled, or used by state parties of the convention, and they are also required to guarantee that mined areas on their territory are destroyed. More than 80% of the nations in the world have ratified the pact, although China, Russia, and the United States are among those who have not. When mines are cleared, vegetation may need to be removed, heavy machinery may need to be used, explosives may need to be detonated or disposed of in large quantities, and hazardous and non-hazardous waste may be produced. If these activities are not properly managed, these activities could have a negative impact on the environment. This also applies to how land is used once landmines have been removed. It can be more challenging to communicate the significance and relevance of the possible environmental implications of landmine removal, even if they may have long-term significance, when there is a serious hazard to humans from unexploded ordnance-related injury or death.

International and Regional Framework

The UNEP provides advocacy and advisory support at important international conferences on disaster risk reduction (DRR), the environment, and climate change adaptation, such as the Global Platform on DRR, the World Recovery and

Reconstruction Conference, the AI for Good Global Summit, the Understanding Risk Forum, the World Reconstruction Conference, the UNFCCC Conference of the Parties, Climate Adaptation Groningen, and the IUCN World Conservation Congress. Some effective steps taken by the UNEP to tackle issues are:

Opportunity mapping tool: UNEP is working with the Global Resource Information Database - Geneva (GRID-Geneva) to create an opportunity mapping tool for Eco-DRR, with funding from the European Commission, the Government of Norway, and the Swedish International Development Agency (SIDA). The "Opportunity mapping tool" functions by superimposing global datasets on the distribution of ecosystems and risk exposure. This tool indicates regions where ecological protection or restoration options exist to improve DRR. Its goal is to stimulate public and private investment in green infrastructure by increasing awareness of the possibilities of Eco-DRR techniques.

Adopting Modern technologies for DRR: All facets of human activity are being transformed by Fourth Industrial Revolution (4IR) technology including Artificial Intelligence (AI), Robotics, the Internet of Things (IoT), and Drones. The DRR domain is not an exception. In order to comprehend the present situation and the current uses of 4IR technologies, we have been expanding our work with new technologies in the field of disaster management. Future promotion of these solutions for environmental emergency response is our aim, along with further identification of partners and business potential.

Although they differ in scope and methodology, the ICRC Guidelines and the ILC's proposed principles have the same core goal of enhancing and clarifying the international law relevant to environmental harm caused by conflicts. The extensive breadth of the ILC work is a distinguishing quality. Fundamentally, the subject covers every stage of a conflict's lifetime. This strategy understands that taking preventive action before a problem arises will maximize its effectiveness. Furthermore, the environmental repercussions of armed war frequently persist even after it has ended, and prompt effort to address them might greatly ease the transition to a lasting peace. Comparatively, the ICRC Guidelines concentrate on IHL principles that apply during a conflict, even if some of them need to be

addressed before a conflict ever arises and others continue to be relevant in post-conflict contexts. The broad temporal scope of the ILC work also means that the subject does not only focus on the duties of the warring parties but also seeks to define what other, non-belligerent States, or international organizations could and should do to enhance environmental protection in relation to armed conflicts. The principles cover peacekeeping, humanitarian aid, the defense of indigenous peoples' territory, and the control of companies and other commercial organizations. Due to its vast scope, the ILC work also draws on other fields of international law, including international human rights law and international environmental law, in addition to IHL.

Case Studies

The Syrian Conflict

Due to the extensive use of explosive weapons, the destruction of oil refineries (resulting in soil contamination, pollution, and the subsequent reliance on highly polluting makeshift oil refineries), and the improper management of waste and water, particularly in densely populated areas, a decade of war has left a significant environmental impact. A preliminary analysis of a number of environmental problems, such as air pollution, emissions, deforestation, soil and vegetation deterioration, water depletion, and improper waste management, is provided in this study. Additionally, it makes some green reconstruction and post-conflict aid suggestions. More work should be done now to assess the conflict's effects on the environment and include environmental planning and concerns into rehabilitation plans.

Refer to:

<https://www.arab-reform.net/publication/the-environmental-impact-of-syrias-conflict-a-preliminary-survey-of-issues/>

The Gulf War oil spill

A US-led coalition quickly forced Saddam Hussein to retreat after he ordered the occupation of Kuwait in August 1990 in an effort to seize control of the Middle East's lucrative oil supply and settle a sizable debt incurred from Kuwait. The coalition then launched an intensive bombing campaign against Hussein.

In a final act of vengeance, though, Iraqi soldiers burned more than 700 oil wells on fire as they withdrew. Despite several promises, Kuwait is still scarred by catastrophic environmental damage three decades after what some consider to be one of the greatest environmental catastrophes in history, and the billions put aside

for restoration are still awaiting use. Uncontrollably burning oil wells. 800 miles of smoke were originally visible above them. The Persian Gulf received a startling 11 million barrels of crude oil, producing a nine-mile-long slick. On the desert's surface, around 300 oil lakes developed, contaminating the soil. Today, more than 90% of the polluted unprotected

soil is still out in the open. Access to the polluted locations is limited, in part because of safety concerns raised by the explosives that Iraqi forces left behind when they withdrew. Photos from fieldwork taken between 2012 and 2019 demonstrate the variety of shapes the pollution may take. Some wellheads now have contamination up

to four meters deep. During his initial visit to the lake in 2015, Meshari Almutairi, an environmental consultant with the Kuwait Oil Company, claims he was able to shovel out the dirt to reveal a gradient of brown as a sign of pollution levels. At the top, the soil is darker and more extensively polluted, diminishing into a healthy beige of intact soil at the bottom. The main cause of worry is exposure to petroleum hydrocarbons, a combination of compounds contained in crude oil. They



have gotten into the fresh groundwater aquifers in northern Kuwait that are used for irrigation, small enterprises, and distilling water, and they are already changing the qualities of the soil and killing a lot of plants and animals. These pollutants also cause harm to human-life. Recent field study indicates that bioremediation may not be successful in Kuwait due to the high concentration of petroleum hydrocarbons and salt content in the polluted soil. The salinity of the soil, which works to reduce the efficacy of the microorganisms, is the problem, according to Mahmoud. "Even if it does work, it will probably take considerably longer," he added. The quick action to put out the blazing wells 30 years ago was hailed as a major accomplishment, but post-war environmental rehabilitation efforts have not yet been felt.

Tigray War: Environmental effects in Ethiopia

Conflict-related deforestation is the most likely cause of the observed patterns of loss of woody vegetation because rainfall, temperatures, locust invasions, and fire cannot completely account for them.

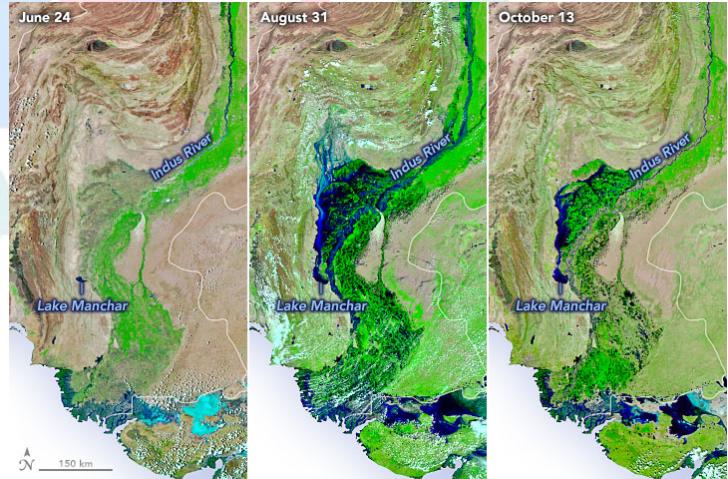
We hypothesize that this is what has happened in Tigray. Wars may interrupt the availability of food, fuel, and other important resources, causing impacted populations and armed forces to make greater use of local ecosystems. Since November 2020, the area has been subject to a de facto blockade that has caused a collapse in the availability of fuel and power, which has presumably increased the usage of wood as a fuel source. As part of a range of environmentally friendly strategies to combat food insecurity and poverty in the area, Tigray has experienced a broad comeback of woody vegetation during the past three decades. These achievements are now under danger due to deforestation brought on by armed conflict. The prior regeneration of woody vegetation may also have served as a buffer against the war's negative effects on the environment at the same time. It is important to take into account both the ecological and human rehabilitation after the Tigray war: In the past, trees and other natural vegetation were essential for preserving water and soil, lessening the effects of the continuous battle, and

they continue to be a crucial pillar of long-term food security and climatic resilience.

Refer to:
<https://ceobs.org/the-war-in-tigray-is-undermining-its-environmental-recovery/>

Extensive floods in South-Asia

Earlier this year, flooding, landslides, and lightning strikes wreaked havoc on Eastern India and Bangladesh, killing more than 100 people, many of them children. Over four million people, including at least a million children, have been impacted by the floods in India's Assam state. In the state, at least 800,000 kids are not in school because wind and rain have damaged or destroyed school buildings. At least 84% of Sylhet district and the entirety of Sunamganj district in Bangladesh are underwater. According to reports, the severity of the flooding in Bangladesh, which has affected close to four million people, including 1.26 million children, is worse than that of the floods in 2004, which at their worst inundated half of the nation. The biggest floods in Pakistan in ten years occurred in the beginning of September 2022. For several weeks, the area had been battered by monsoon rains, which had caused flooding to cover 75,000 square kilometers of the nation. Rain stopped six weeks later, and the fields are already starting to drain. However, huge areas of agriculture continue to be under water, infectious illnesses are growing, and food shortages are imminent. The floods have had an impact on Pakistan's farmers since there has been so much standing water in the crops for so many weeks. According to a satellite-based analysis by scientists at the



International Center for Integrated Mountain Development (ICIMOD), Sindh's cotton harvest will likely be reduced by 88 percent, rice production by 80 percent, and sugarcane production by 61 percent due to flooding.

Wildfires in Australia

According to Reuters, an estimated 25.5 million acres have burnt in Australia since the start of the bushfire season in September, and at least 25 people have perished. It is anticipated that over 1 billion animals will be dead, and 2,000 dwellings are thought to have been devastated. Thousands of thousands of people had to leave the area. According to Accuweather, there will be more than \$100 billion in damages and economic losses. Every autumn, there are fires in Australia, but this catastrophe is unique since it follows a hot wave and a protracted drought. The vastness of the devastated territory in Australia is difficult to understand. The total burnt area is equal to South Korea or the state of Virginia in the US. The fires may be a component of a sinister feedback loop: as more land burns, more carbon dioxide is released into the sky, and as more trees, which serve as natural carbon sinks, are lost. 350 million metric tons of CO₂ have already been emitted into the sky as a result of fires in Australia. That amounts to about 1% of the total carbon emissions produced globally in 2019. The likelihood of more significant and fatal fires increases as CO₂ levels rise and our globe becomes warmer.

Suggested Moderated Caucus

topics:

Please note, these are just examples for mod caucus topics, delegates must prepare their own topics to discuss during the conference.

1. Steps that should be taken to ensure that countries adhere to international laws to protect the environment during conflicts.

2. Post conflict environmental assistance becoming the standard, not ad-hoc.
3. Reducing the number of international military bases of super power countries as an effort to reduce its environmental impact.
4. Providing disaster management assistance to under-developed countries prone to natural disasters.
5. Discussing and tackling effects on wildlife during disasters and conflicts

** Delegates may also discuss their research on other countries, in moderated and unmoderated caucuses. Delegates are advised to prepare these topics beforehand to have a fruitful debate.**

Guiding Questions:

These questions are mainly to help you understand what to research on and how you can decide what is important and what isn't:

1. What has my country done for environmental protection?
3. Has my country ever been involved in major instances of environmental destruction caused by wars?
4. Has my country's environment been affected by wars?
5. Which wars throughout history have had significant effects on the environment?
6. What steps have been taken so far to reduce the impact of wars on the environment and how successful have these steps been?
7. What possible solutions can be suggested to improve the current scenario?

USEFUL WEBSITES AND LINKS

1. www.unenvironment.org
2. www.reuters.com
3. www.science.gov
4. Disasters & conflicts | UNEP - UN Environment Programme
5. www.theguardian.com
6. <https://ceobs.org>
7. <https://blogs.icrc.org/>
8. <https://www.nytimes.com/>

This guide is just a tool to help you with your research. Don't restrict yourself to the guide alone. Look outside the guide and look at other sources as well and come up with topics that can be debated during the session as well. All the Best!!!

Best Regards,
Antony Thaikavil
Chairperson of UNEP

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ISSUE 2:

The harmful effects of industrial farming and ensuring food security

INTRODUCTION

The term “industrial agriculture” refers to varied intensive farming practices used today to support the increasing demand for food and maximize profits. Industrial farms typically rely on harmful practices like excessive use of insecticides and fertilizers to achieve their food production milestones. They also maximize yields through extensive irrigation, new farming fields, and more. Commercial agricultural enterprises mainly treat agriculture as a business, they are prepared to do everything within their means to make the most out of every unit of their land. This capitalistic attitude is partly responsible for the negative consequences of this farming system on the environment but industrial farming seems to be a panacea for a fast-growing world- using these fast-yielding methods to reduce hunger, accommodate growing populations, and stimulate economic prosperity. Decades of industrial farming have taken a toll on the environment and countries must determine how to implement sustainable farming and at the same time ensure food security.

BACKGROUND

Industrial agriculture has had great success in producing abundant, low-cost food. World hunger has been declining for decades, and food production per capita has sharply increased since the 1960's. But this success has come with costs that raise

questions about "sustainability" and the unintended effects of the global "rationalization" of food production. The concept of industrial farming started in the 1900's in the United States of America where more than half of the Americans were either farmers or lived in rural communities. Most of their farms were diversified; they produced a variety of crops and animal species together on the same farm, in complementary ways. The way the USA conducted its farming business radically transformed the availability of food security and soon many countries started following "Industrial Farming" to meet the food shortages and to expand the export of their respective countries.

"Decisions about who produces our food, what food is produced, how it is produced, and who gets to eat that food have been steadily moving from ... households and governments to ... corporation boardrooms." -Mary Hendrickson and Harvey S. James Jr

THE PROCEDURES USED TO ADVANCE INDUSTRIAL FARMING

- *Specialization*

Aims to increase efficiency by narrowing the range of tasks and roles involved in production. A diversified farmer might need to manage and care for many different vegetables and crops whereas specialized farmers focus all their knowledge and skills and equipment on one or two enterprises, such as growing either one or two crops. This method was also applied to "animal genetics" as selective breeding produced animals designed for a single outcome-increased milk production fattening of beef meat etc. compared to chicken in the 1930's, today's chicken bred for meat

grow to almost twice the weight in less than half the time, using less than half as much as feed. The genetic selection for these exaggerated traits have often come at the expense of the animals health, including risks for heart failure in broilers and poses a threat for our health.

- *Mechanization*

Like work on an assembly line, specialized labor often involves repetitive tasks that can be performed by machines , this means routine jobs like sowing seeds, harvesting crops,milking cows and feeding and slaughtering animals could be mechanized reducing the need for human and animal labor. Between 1900 and 2000, the share of the U.S workforce involved in agriculture decline from 41% to 2%. But it brought tremendous gains in efficiency like grains and bean crops which are cut from fields and removed from the inedible part of the plant involves enormous amount of labor, by hand one can thresh roughly 15 to 40KG of grains per hour but due to mechanization a thresher can process 450 to 600 kg of grains or beans.

- *Chemical and pharmaceuticals inputs*

The early 1900's saw the introduction of synthetic fertilizers and chemical pesticides, innovations that have become hallmarks of industrial crop production. From 1964 and 1976, synthetic and mineral fertilizer applications of crops nearly doubled while pesticide use on major crops increased by 143%

- *Consolidation*

New technology including chemicals and large tractors, allowed farmers to work larger areas of land with less labor. Various Government policies

encouraged farmers to scale up their operations and farmers were also motivated by economies of scale as they were now able to earn more profits.

How does Industrial Farming pose a threat to society ?

“Agricultural runoff is one of the leading causes of water pollution in the US.”

1. GLOBAL WARMING

Global warming is caused by certain gasses, such as methane, nitrous oxide and carbon dioxide, that are collectively known as greenhouse gasses. An estimated 14.5% of the global output for greenhouse gasses emissions comes from animal agriculture, primarily from cattle in the beef and dairy industries.

2. *DEFORESTATION*

Cows grow quickest on open pastures with abundant access to grass, so these environments are preferred by farmers who want their cattle to swiftly put on weight so they can be sold for slaughter as soon as possible. While grasslands naturally exist in many places around the world, forests are increasingly being razed to create more pastures for ever growing populations for cattles-because of consumer demands for steaks, hamburgers and other food dishes.

3. WATER USE

Fresh water is an increasingly precious resource, yet factory farms use plenty of it for their animals and plants. A single dairy cow requires 40-50 gallons of water each day, for both drinking and cleaning purposes, since intensely crowded conditions on factory farms require

a constant battle to be waged on the build-up of excrement, Grains also take up water upto 43 times more than usual cropping techniques.

4. *WILDLIFE AND BIODIVERSITY*

The vast tracts of land required for meat production, as well as the deluge of pollution and other impacts that are degrading ecosystems, threaten the existence of wildlife and a biologically diverse planet. A study in 2021 found that land-use conversions for meat production were the primary driver of biodiversity loss. Lamb and cattle raised for beef require the most land of any proteins that humans consume, and due to the surging demand for meat globally, wildlife habitats are being encroached upon at unprecedented rates

KEY PLAYERS IN INDUSTRIAL FARMING

1. China

China has 7% of the arable land and with that they feed 22% of the world's population. In the 20th century, China struggled to feed its large population. After that, upgrading farming policies and technologies made China big-time self-sufficiency and growth.

2. United States

The country is known for its agricultural science and provides some advanced agriculture technology in the world. It provides a role model for many countries in the agriculture sector, it uses advanced resources such as scientific soil, crop analysis, more innovative machinery and increased use of artificial intelligence in technology.

3. Brazil

Brazil is historically one of the best agricultural countries on which its economy is based, around 41% of the total land is agriculture occupied in Brazil and has an entire land of 2.1 billion acres and the area occupied by farming is almost 867.4 million acres in Brazil. The country is the globe's largest exporter of coffee, beef, ethanol and soybean.

4. India

Indian agriculture provides around 58% of livelihood to Indians. In recent data, agriculture is the primary source of income for half of the population that contributed 17% to 18% to their GDP. India is the largest producer of most of the fruits in the world and produces many other vegetables and spices.

5. Russia

13% of agricultural lands captured for the production of sugar, beet, wheat and potatoes,]. The cereals are rye, barley, oats and maize. These are the main crops in Russia, the country is mainly engaged in the industrial economy, and it has a huge agricultural industry. Around 6% of the total Russian GDP is occupied by the agriculture industry, with this the country's agriculture industry provides 16% of employment opportunities to the general population.

Delegates are advised that the above countries are not considered as the only important countries, the above are mentioned as examples to highlight the intensity of industrial farming in their respective countries, there are many more countries to the list above and delegates must research how industrial farming degrades their environment how countries must combat the growing populations hunger and food supply.

Suggested moderated caucus topics:

1. How can countries around the world practice sustainable farming?
2. How can governments of respective countries listen to indigenous people and let them practice regional intensive farming

3. "Global hunger is rising and there is a potential forecast of food shortage that countries might face, how can countries combat this?"

Delegates please do not restrict yourself to the above mentioned moderated caucus, we encourage you to research and introduce more important topics that could be discussed in UNEP, the above mentioned topics are examples of how a Moderated caucus should look like and they are your guiding questions while researching.

We wish you the best of luck! and hope to see challenging debates and fruitful discussions on two of the most important issues that the world is currently facing.

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